

# 2011 FUJITSU GROUP SUSTAINABILITY REPORT

(11)

shaping tomorrow with you

# shaping tomorrow with you

### Fujitsu's brand promise

### shaping tomorrow with you

"shaping tomorrow with you" is about shaping the future of society and business.

It describes our way of doing business, building on our long-term relationships with our customers.

We work with our customers, using our experience and the power of information and communication technology (ICT) to contribute to their success and to the future of society.

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# Bringing About a Prosperous Future

For the creation of a prosperous future that fulfills the dreams of people, we will strive to advance ICT and leverage its power for our customers, local communities and the planet, creating new values and underpinning the sustainable development of society.



### ICT that Has Become Truly Human-Centric

Computers, which began to be widely used in the 1970s, performed important roles in advancing science and technology and in improving industrial productivity. However, computers called for special knowledge and skills. Business hours also had to be shifted depending on the timing of computer availability. It was a

computer-centric era. The 1990s saw the explosive growth of the Internet and networking systems became central to business. E-mail communications,



with information provided and searchable on the Web, made it possible to use networks to do business with the world. Networks brought dramatic changes in both lifestyles and work styles, and marked the advent of the network-centric era.

Now, ICT is ushering in a new era in which people can take advantage of the

computer/network environment without even being aware of it. Much faster networks combined with advances in mobile phones, smartphones and other terminals, and the spread of cloud computing now make ICT resources readily available to anyone. This has made ICT a truly human-centric infrastructure.

### Toward a Human-Centric Intelligent Society

Now that ICT has permeated social life and business and can be readily used by anyone, tremendous volumes of data are being generated in our daily lives and business activities. Corresponding advances in ICT infrastructure make it possible to record, analyze and use effectively this large amount of data. In product development, for example, digital data exists for everything from records of the design, through queries to call centers, to the product ratings on social networks. Collating this information makes it possible to detect potential problems early on and to take preventive action. The Group is developing technologies and service platforms to collect and analyze this data, which will shed light on what was once obscure and generate insights. Such insights have the potential to bring about innovations not only in business but also in agriculture, healthcare, energy and the environment or any other field of human activity.

Leveraging the power of ICT, the Fujitsu Group is working to achieve an intelligent and human-centric society where people can lead prosperous lives. We will actively collaborate with our customers and other stakeholders and seek to create new business opportunities. At the same time, we will address global environmental issues and other problems facing the world, including that of poverty in developing nations.

### Navigation Benefiting people through social systems and ICT services

Creating new knowledge

Through the advancement of ICT, we aim to bring about a Human Centric Intelligent Society – a prosperous and sustainable future where an abundance of knowledge will be generated to the benefit of humankind and the planet.



Masami Yamamoto President, Fujitsu Limited

# Q What sort of company do you want Fujitsu to become through its CSR activities?

### In collaboration with all our stakeholders, we aim for the creation of a prosperous future that fulfills the dreams of people.

The essential purpose of CSR is to contribute to the sustainability of Earth and society while increasing corporate value. Based on this understanding, the Fujitsu Group aims for the creation of a prosperous future that fulfills the dreams of people, pursuing advances in ICT and making the best use of them, collaborating with customers, local communities and the peoples of the world to create new values that will benefit the sustainable development of society. As a step towards realizing this vision, CSR at the Fujitsu Group is practiced by implementing the principles and policies of the United Nations Global Compact, and we strengthen our CSR activities keeping in step with international society.

Please tell us the background and aims behind your Corporate Social Responsibility Policy and its five priorities.

### They are to strengthen CSR activities and integrate them with our business as we respond to the needs of our stakeholders.

In November 2010, ISO 26000 was published, the first international standard providing guidelines for social responsibility. It is becoming increasingly important for companies to engage in CSR activities from a broader perspective. Furthermore, stakeholder demands regarding CSR activities had been diversifying year by year, and there was an urgent need to respond appropriately.

It was therefore time for us to review all of our CSR activities in the past. We reconfirmed that the basis of

CSR lies in implementing the Fujitsu Way and based on this confirmation, we established a CSR policy. At the same time, we developed five priority issues reflecting stakeholder concerns around which we will focus our CSR practices. Thus, we will strengthen on a global basis our CSR activities as an integral part of our business.

# What are the "new values" that will help the sustainable development of society?

### We are working with experts within and outside the Company to create practical wisdom that addresses social problems.

The situation surrounding ICT is changing rapidly. Last year, the number of Internet users topped two billion, with five billion mobile phone subscribers, and ICT has now become an indispensable platform for people's daily lives. We are now seeing the movement towards a human-centric society in which the links between people and between individuals and society, and the new knowledge to which they give birth, are underpinned by global ICT networks.

Here, the Fujitsu Group, as a global provider of ICT hardware, software and services including cloud computing, wants to provide people around the world with the benefits of ICT. A huge volume of data will be generated through the use of ICT, and we want to see it transformed into the practical wisdom to solve social problems. We are also actively using the sophisticated technology of simulations made possible by supercomputers to address some of the world's toughest challenges. By incorporating the new wisdom generated in this way in social systems including environmental, energy, agricultural, transportation, healthcare and educational systems, we will be directly contributing to the sustainability of society.

Naturally, to generate this kind of wisdom, we need to obtain accurate knowledge of on-site conditions, and make our efforts consistent in bridging the gap between ideal and reality. The Group, by ensuring that the latest advances in ICT permeate society and continually deepening its understanding of social realities, will generate a succession of human centric wisdom. This will achieve a sustainable human centric intelligent society.

# Q

What are your management priorities for the creation of a prosperous future and new values you seek to achieve?

# We will continue to prioritize the customer's customer, environmental sustainability and globalization.

To solve global social problems, we believe our business must consider the customer's customer, in other words, society as a whole. On this basis, it is essential that all our business activities, products and services should be in harmony with the global environment. To support our full array of customers our "One Fujitsu" initiative seeks to unify the Group in appropriately serving each customer in every nation and region, with the priority on "Think Global, Act Local."

### Q How are you reacting to the Great East Japan Earthquake?

## We are putting forth our best efforts in post-disaster recovery and reconstruction.

We mourn the tragic loss of so many lives and express our deepest sympathies to those in the devastated areas.

As an ICT enterprise providing the information platforms and communications networks that support the social infrastructure, we are determined to harness all the Group's resources in overcoming this national disaster. The work of recovery and rebuilding for the people of the region and the basis of their society has only just begun, but by steadily continuing to do whatever can be done at the time, we are confident that Japan will recover. Through ICT, we will contribute to Japan both during recovery and long after it, as we will to the advancement of the planet.

### $\mathbf{Q}$ Please give us a message for stakeholders.

We would like to work together with our stakeholders around the world to build a prosperous future.

In 2010, Fujitsu introduced the brand promise "shaping tomorrow with you" to articulate one consistent message to the world. This is our commitment to build the future with our customers and with all our stakeholders through ICT.

To keep this promise, the Group will support both disaster recovery and the Japanese economy as we continue actively supporting our worldwide customers through business activities that will build a prosperous future where people's dreams are fulfilled.

# The Fujitsu Group's Response to the Great East Japan Earthquake

At 2:46pm on March 11, 2011, a magnitude 9.0 earthquake, the most powerful ever measured in Japan, occurred with its epicenter off the Sanriku Coast of Miyagi Prefecture. It produced severe tremors with an intensity of least 5.0 from Kanto throughout wide areas of the Tohoku region. A huge tsunami accompanied the earthquake, causing major destruction along the East Japan coast.

We mourn the many deaths caused by this earthquake and express our profound sympathy for those living in the

### Establishment of a Central Disaster Response Headquarters

Immediately after the earthquake, Fujitsu formed a Central Disaster Response Headquarters headed by the president. The task force consists of two units, one to support in-house restoration (Restoration Headquarters) including corporate affairs & human resources group, facilities gourp and ICT infrastructure group, and the other for restorative measures taken by departments (Disaster Response HQs) to support customers, plants and R&D locations. The two units coordinated their efforts to ascertain the safety of Group employees and customers, and started to collect damage situation reports.

Based on the information collected, meetings to decide the measures to be taken were held using TV conferencing, and the appropriate measures to be taken for our own and our customers' facilities were decided for the Group as a whole.



Meeting of Disaster Response HQ

The Company-wide Disaster Response Structure

Headquarters	Restoration Headquarters
Headed by: President Yamamoto of Fujitsu	
Deputy Head: Vice President Ishida (Fujitsu)	Corporate Attairs Group
Vice President Saso (Fujitsu) Vice President Ikegai (Fujitsu)	Secretarial Group - Facilities Group
Administration	Public and Investor Relations Group
(Risk Management Office)	Human Resources Group Procurement Group
Disaster Response HQs	
Customer Restoration Countermeasures HQ (Field support, system engineering, sales)	On-Site Restoration HQ Workplace Organization HQ Restoration
	On-Site
Product Business Countermeasures HQ	Restoration Organization Organization Organization Organization

devastated areas. We hope for their quick return to normal life and the early recovery of the disaster-stricken areas.

Fujitsu will marshal all the Group's resources to support the restoration of daily life and to rebuild the social infrastructure in the disaster area. At the same time, we will work to offer products and services that provide customers with safety and security in the face of natural disasters.

A report of the Fujitsu Group's response to the Great East Japan Earthquake follows.

### The Fujitsu Group's Disaster Recovery Activities Damage and Recovery Situation for Business Locations

The Group has over 50 business locations in East Japan, and immediately after the earthquake struck their lifelines (electricity, water and gas supplies) were interrupted, and damage to

buildings and facilities included fallen ceilings and collapsed walls, burst water pipes, etc., so that a number could no longer function. Locations in the Kanto region were also affected by rolling power cuts.

However, of the nine



The damaged Fujitsu Isotec Plant

manufacturing plants in which operations were affected, all-out company efforts successfully restored the last of them—Fujitsu Semiconductor Technology—to 100% operation by April 20, since when all have been operating normally.

#### The Main Plants Damaged by the Earthquake

Products	Plant Name Location		Restoration
	Fujitsu Semiconductor Iwate Plant	Iwate Prefecture (Isawa-gun)	April 18, 2011
	Fujitsu Integrated Microtechnology Miyagi Plant	Miyagi Prefecture (Shibata-gun)	March 23, 2011
Semiconductors	Fujitsu Semiconductor Aizu-Wakamatsu Plant Fukushima Prefecture (Aizu-Wakamatsu-		March 28, 2011
	Fujitsu Semiconductor Technology HQ Plant		April 20, 2011
	Fujitsu Integrated Microtechnology HQ and Aizu Plant	Fukushima Prefecture (Aizu-Wakamatsu-shi)	March 18, 2011
PC servers/ Desktop PCs	Fujitsu Isotec Hû Plant	Fukushima Prefecture (Date-shi)	March 23, 2011 PC Servers March 28, 2011 Desktop PCs (Partially made at Fujitsu Shimane Plant from March 23) April 18, 2011 Resumption of all desktop PC production
Power Supplies, etc.	Fujitsu Telecom Networks Furudono Plant	Fukushima Prefecture (Ishikawa-gun)	March 22, 2011
Networks/	Fujitsu Nasu Plant	Tochigi Prefecture (Otawara-shi)	March 16, 2011 (Operating to avoid planned power cuts)
telephones	Fujitsu Oyama Plant	Tochigi Prefecture (Oyama-shi)	March 16, 2011 (Operating to avoid planned power cuts)

In assessing disaster damage, good use was made of satellite mobile phones, MCA wireless links, and Software-as-a-Service (SaaS) type applications such as CRMate in acquiring and sharing up-to-date information.

### **Confirming Employee Safety**

Employee safety was confirmed by using the existing emergency communication network, while simultaneously utilizing emergency communication and safety checking cloud services proven in disaster prevention drills, etc. These services use the mail functions of mobile telephones, and they were invaluable in confirming employee safety.

### The Situation in Supply Chain Damage and Restoration

While working with suppliers to restore supplies interrupted by earthquake damage, we implemented the measures set down in BCP policy to ensure uninterrupted supplies to customers by rapidly finding alternative components and suppliers. Also, when some components proved difficult to obtain, we minimized their influence on production schedules by modifying product design.

### Response to Customers in the Disaster Area Establishing a Customer Restoration Countermeasures HQ

In order to grasp accurately the state of damage at customers' locations and plan restoration, we established a Customer Restoration Countermeasures HQ in the maintenance division where their maintenance information was stored, and two On-Site Restoration HQs, one in Saitama City and the other in Sendai City, to support the work of the unit. Information was shared with all the departments involved using a disaster damage website that collected information on customer damage and restoration, and the maintenance situation.

### **Restoration of Social Infrastructure**

To ensure the safety and security of everyone in the disaster area, the On-Site Restoration HQs combined the local maintenance personnel with 1,500 support personnel per day dispatched from

all over Japan to restore customers' supporting social infrastructures, such as local government, hospitals and financial institutions.

### **Response to Corporate and Individual Customers**

We set up multiple contacts to handle queries about corporate computer systems and individuals' personal computers and provided guidance on our corporate website. For individual customers living in areas designated under the disaster assistance law, we provided a special service collecting damaged Fujitsu products for repair.

### Response to Customers Affected by Rolling Power Cuts

In areas affected by planned rolling power cuts, we provided on our website details of the items to be checked and handled properly before power interruption to ensure that customers' systems could be restarted safely and operated normally after power was restored. Customers who had contracts with our Support Desk (for maintenance and operational support) were also informed by e-mail.

### Activities Supporting Restoration and Rebuilding in the Disaster Area

### **Providing Cloud Services**

Until the end of July, we provided free of charge a special Great East Japan Earthquake cloud service support program comprising 12 cloud services to companies, local authorities and other organizations engaged in restoration. In addition to servers, storage and other infrastructure, we provided SNS and e-mail, web conferences, e-learning and other SaaS applications. These proved invaluable in confirming the safety of those in the disaster area, in ascertaining the damage situation, in collecting and distributing life-support information, and in securing mail services.

We also provided free of charge (until the end of March 2012) the SaaS-type CRMate application for speedy acquisition and integrated control of information on the damage situation at multiple places of business.

### Examples Fujitsu Isotec's Approach

All departments of Fujitsu Group companies prepare for natural disaster or accidents by drawing up a business continuity plan (BCP) designed to ensure that operations can be resumed within a certain target time.

Fujitsu Isotec manufactures desktop PCs, and earthquake damage to its roofs, walls and production facilities were judged to threaten rapid resumption of operations, so in accordance with the BCP, they started to move the production line to Shimane Fujitsu (in Hikawa, Shimane Prefecture), which manufactures notebook computers. Ten days later, the transfer was completed, and alternative production began. Over the previous two years Fujitsu Isotec had completed more than 40 practice drills for the replacement strategies laid down in the BCP, and those efforts paid off as shown.

Transfer

PC Production Sites

Shimane Fujitsu (SFJ)

Location: Hikawa Cho, Hikawa Gun, Shimane Prefecture Business Lines: Production of notebook PCs and PCBs, etc. Fujitsu Isotec (FIT) Location: Hobara Machi, Date City, Fukushima Prefecture Business Lines: Production of desktop PCs and PC servers, etc.

### **Special Treatment of Equipment Repairs**

Repairs to equipment under maintenance contract or within the warranty period are not covered if the damage arises from natural disasters, and must therefore be paid for, but under a special Great East Japan Earthquake maintenance support program we provided parts and labor at specially reduced prices.

We also offered concessionary pricing to those whose repairs were not covered by a maintenance contract.

### Providing the Means of Access to Information

To enable those living in evacuation centers to rapidly access information using the Internet, we loaned a total of some 2,000 PCs free of charge to over 100 centers. These were used for free access to the Internet.

We also used Internet TV capabilities to let people view local TV programs, and linked the TV stations with evacuation centers in Saitama Prefecture by providing live on-demand equipment free of charge. This enabled those evacuated outside the disaster area to keep up to date with information on events within the area and to send information intended for the evacuees.

#### Example NIFTY's Approach

Group company NIFTY provided flexible access services free of charge to companies, local governments, universities and other organizations that generate information of benefit to disaster victims. These include the public NIFTY Cloud service and the NIFTY Cloud Basic Hosting service, which makes it easy to create home pages, constituting the basic ICT services for information generation (this has been extended through December 2011).

### Sending Donations

To support victims of the Great East Japan Earthquake and to help with the work of restoration, Fujitsu Group companies sent donations of over 200 million yen. In addition, the sum of the donations by the Group's individual executives, employees and unions exceeded 100 million yen, and this was delivered to the disaster relief headquarters in each prefecture.

### **Providing Emergency Supplies**

Not only were rice, water, foodstuffs and other essential supplies for daily life sent to the evacuation centers but Group member company FDK also sent 723,500 batteries and 1,500 flashlights.

### Response to the Accident at the Fukushima Dai-ichi Nuclear Power Plant Basic Policy

Our basic response to the accident at Fukushima Dai-ichi Nuclear Power Plant was to act in accordance with instructions published by government and administration officials. We are asking all Group companies, through the Central Disaster Response Headquarters, not to let themselves be influenced by rumors but to take carefully considered actions.

As of the end of June 2011, there were no Fujitsu Group locations in the areas designated by the government as an evacuation zone, a planned evacuation zone, or an emergency evacuation preparation zone, but in case these areas are expanded in future and require the evacuation of Group locations, we plan to respond in accordance with BCP requirements.

### A Special Taskforce for Power Conservation

The nuclear power station accident caused an electric power shortage, and in order to respond properly to the government and financial sector guidance, and to review the medium- and long-term power supply situation, Fujitsu set up a power conservation committee with the Company president as chairman in April 2011.

The committee seeks a reduction of at least 15% from our peak power consumption during the current fiscal year, and will be taking the following approaches.

### Transfer Fujitsu's own servers

• Of the 10,000 or so servers currently used in Fujitsu R&D and business operations, some 4,800 will be either moved to data centers away from Tokyo Electric Power and Tohoku Electric Power service areas or temporarily switched off.

#### Take initiatives at plants and offices

•At manufacturing plants in Tochigi Prefecture and the surrowding region, fewer facilities will be used and some processes will be moved to night shifts.

At offices, some elevators and lighting will be switched off, air conditioning temperatures will be adjusted, water heaters and refrigerators switched off along with a "cool business" initiative.
Peak-load shifting will be introduced using smart power plugs and PCs that automatically switch over to battery operation.

### Change working systems

At offices on our own premises, two national holidays falling in autumn were shifted to weekdays in July and August, when power consumption was expected to peak, and each location took it in turn to create four-day long weekends. Where we have departments that are tenancies, we cooperate with tenant electricity savings by splitting up the one-week summer holiday and distributing it among individuals.

### Providing Cloud Services that Match the Needs of Disaster Victims and NPO Networks

Companies, NPOs and volunteers are among the many support organizations that have come forward to enter the disaster area and provide many different forms of support. One of them has a name that translates as "The joint project linking disaster victims and NPOs" (abbrev. "TSUNA-PRO") and was formed to link a number of NPOs in Sendai, Tokyo and the Kansai region with the Nippon Foundation.

TOPICS

TSUNA-PRO performs assessments of the actual situation in evacuation centers, identifies needs and problems, and aims to match them with NPOs whose activities include the specialized services of care-givers, nurses and doctors, and of those who can support the handicapped, foreigners, or the seriously ill.

The evacuation centers have a wide variety of needs depending on the degree of damage, the personal attributes of the victims and local differences. Particularly when, as in this case, the disaster covers a large geographical area, many evacuation centers have been set up, and the local governments administering them have themselves been damaged, it is extremely difficult to provide support that matches the precise needs of centers and victims. This is the situation in which TSUNA-PRO seeks to deliver what is needed to those who need it. To do so, it forms multiple teams that go around visiting the various centers in Miyagi Prefecture preparing detailed assessments covering over 100 items. For example, "food" covers not only the number and kinds of meals but also checks their nutritional content. The information gathered in this way, along with the personal attributes of

individual victims, involving personal interviews in which sympathetic hearings are given to elderly and handicapped victims, is passed along to the NPOs with the necessary support capabilities.

The gathering, analysis and sharing of this information on

TOPICS



(Photo: Courtesy TSUNA-PRO)

needs, including projected needs, is supported by information systems provided by Fujitsu Disaster Support Teams<sup>\*1</sup>. Fujitsu has an established track record of providing on-site cloud-based services for the early detection of infections of foot-and-mouth disease and avian influenza, rapidly providing information to prevent the spread of epidemics<sup>\*2</sup>. Drawing on this experience, teams went into action on March 13, two days after the earthquake, acutely aware of the importance of gathering and sharing information. Only two weeks later, the teams were able to provide a system based on the folders of paper notes initially compiled by TUSNA-PRO staff. With the TSUNA-PRO cloud services, they are now able to follow and rapidly respond to the continually changing needs of evacuation centers.

Fujitsu will continue to support the work of disaster recovery and rebuilding through services that address real on-site needs.

- \*1 These teams take responsibility during emergencies or after disasters and provide system-related support to improve the situation.
- \*2 The Foot-and-Mouth Disease Recovery Support System and the Avian Influenza Epidemic Prevention System. The Fujitsu SaaS-type CRMate cloud system is used for all of them, including TSUNA-PRO Cloud.

### The Support Framework Used by TSUNA-PRO



### Contribution by the Satellite-Based System "Sentinel Asia STEP-2", Which Shares the Satellite's Images in Disaster Areas Globally

After the Great East Japan Earthquake, satellite images were provided by Japan's own Earth observation satellite, "Daichi," and observation data was provided by Taiwan, India and Thailand and other countries. These images helped government's information gatherings activities.

This initiative is an international cooperation project, Sentinel Asia, under the auspices of the Japan Aerospace Exploration Agency (JAXA). Currently, 65 organizations in 24 countries and 10 international agencies are participating. This project shares satellite images of typhoons, floods, earthquakes, tsunamis and other natural disasters in the Asia-Pacific region on the web, and enables prompt disaster responses in each nation.

Fujitsu's support for the project includes developing the Sentinel Asia STEP-2 system and providing the integrated BI.DAN-GUN high-speed file transfer solution.



© JAXA, Emergency observations of the Great East Japan Earthquake Image by the satellite: A fishing port in Namie Machi, Fukushima Pref. showing the flooding in a nea approx. 6km square. Left: After the earthquake (March 14, 2011) Right: Before the earthquake (February 23, 2011)

# The role and responsibility of the Fujitsu Group as a truly global ICT company.



Masami Fujita Corporate Senior Executive Vice President

# Corporate Social Responsibility Policy and Five Priority Issues

In December 2010, the Fujitsu Group established a corporate social responsibility (CSR) policy and determined five priority issues around which it will focus its CSR practices.

The Fujitsu Group has carried out CSR activities in accordance with the Fujitsu Way, a corporate philosophy that sets forth guiding principles and overarching values for employees. In addition, in December 2009 the company became a signatory to the United Nations Global Compact (see page 15) as a way to enhance its CSR activities from a global perspective.

In Japan, economic promotion organization Nippon Keidanren revised its Charter of Corporate Behavior in September 2010 to reflect changes in attitudes towards CSR. In November, ISO 26000, the first international standard providing guidelines for social responsibility, was published. Society's demands for CSR activities are intensifying both within and outside Japan.

Based on this CSR policy, the Group will focus on five priorities in a more forceful response to the multiple needs and expectations of stakeholders so as to contribute to the sustainable development of society and the planet, discharging its responsibilities as a truly global ICT company.

In addressing the priority issues, Fujitsu will set key performance indicators (KPIs) and follow the PDCA cycle in making actual progress. This progress will be disclosed within and outside the company and shared while CSR activities are being made an integral part of management.

### **Ongoing Dialogue with Outside Experts**

In setting priorities, the CSR Promotion Task Force,\* which has representatives from all concerned departments of the Company, formed a basic strategy working group that considered the Global Reporting Initiative guidelines and other internationally recognized CSR norms, identified global social problems, and held repeated discussions to decide those which Fujitsu should address as priorities (nine such discussions were held between April and September 2010).

Two sessions of dialogues were also held with stakeholders, in which they were represented by outside experts, deepening our understanding of their needs and expectations. \* CSR Promotion Task Force: Global Business Management Unit, Corporate Planning and Business Strategy Office, Corporate Brand Office, Customer-Centric Management Promotion Office, FUJITSU Way Unit, Corporate Affairs & Human Resources Unit, Diversity Promotion Office, JAIMS Promotion Division, Legal Unit, Purchasing Unit, Corporate Environmental Strategy Unit, Marketing Unit, and the following Group companies: Fujitsu Laboratories Ltd., Fujitsu Semiconductor Ltd., Fujitsu Design Ltd., Fujitsu University Ltd., and others.

### Comments from Experts who Participated in the Dialogue (excerpted)

### Mariko Kawaguchi

Then General Manager, CSR Promotion Department, Daiwa Securities Group Inc.

As markets become increasingly globalized, companies that resist diversity will be unable to grow. As previously successful experiences become ineffective, it will be essential to consciously make use of human resources with different ways of thinking and standards of judgment.

### Taku Furukawa

Board member (then Managing Director) of the Alliance Forum

Japanese companies are expected to develop human resources. As markets change and call for different approaches and communication skills, employees who can cope are essential.

### Yukiko Furuya

Board member, NIPPON ASSOCIATION OF CONSUMER SPECIALISTS

Stakeholder communications should not be a passive waiting game, but actively initiated from the company side. When that happens, I would like to see the communications addressing the solutions of social problems.



### **CSR Policy**

CSR at Fujitsu is practiced by implementing the Fujitsu Way. In all its business activities, by implementing the Fujitsu Way in light of the expectations and needs of multiple stakeholders, the Fujitsu Group contributes to the sustainable development of society and the planet.

Fujitsu will focus on the following five priority issues in implementing its CSR practices. By pursuing these issues, Fujitsu will promote responsible management as a global ICT company.

### **Five Priority Issues**

The five priority issues that the Fujitsu Group will focus on fall into three categories.

### 1. Addressing Society's Challenges through Corporate Activities

The Fujitsu Group will contribute to the sustainable development of society and the planet by addressing a variety of society's challenges through its corporate activities.

### Priority 1: Providing Opportunities and Security Through ICT

Fujitsu will contribute to the creation of a society where ICT connects and supports the world's 7 billion people, providing them with security and opportunities to pursue their dreams.

### Specific initiatives:

- Provide easy-to-understand and user-friendly products and
- solutions (based on the principle of universal design). • Contribute to the resolution of society's problems by providing
- supercomputers and advanced ICT technologies.

### Fujitsu will contribute to the resolution of global environmental challenges through ICT, while at the same time

Priority 2: Protecting the Global Environment

reducing the Fujitsu Group's own environmental footprint. Specific initiatives:

- Reduce the environmental footprints of customers and society by developing green ICT.
- Reduce the environmental footprint of Fujitsu's own business activities
- Promote activities to conserve biodiversity.

### 2. Strengthening the Foundation of CSR Activities

To contribute the sustainable development of society, Fujitsu will strengthen the foundation of its CSR activities to foster an environment in which employees develop a global perspective and actively participate in the Company's CSR activities.

### Priority 3: Embracing Diversity and Inclusion

Fujitsu will promote diversity in its human resources, irrespective of nationality, gender, age, or disability, to enable individuals to grow with the company.

### Specific initiatives:

- Create a corporate culture that fosters innovation through the promotion of diversity.
- Promote work–life balance among employees.

#### Priority 4: Developing Human Resources for Their Contribution to Society and the Planet

Fujitsu will lead the way in cultivating employees who, from a global perspective, are pioneers in contributing to the advancement of society.

#### Specific initiatives:

 Foster the development of globally minded employees.
 Foster a desire among employees to contribute to the advancement of society through their work.

### 3. Communicating and Collaborating with Stakeholders

In order to promote the initiatives outlined above from multiple perspectives, Fujitsu will build relationships with a broad base of stakeholders, going beyond the boundaries of the Company's existing business.

#### Priority 5: Communicating and Collaborating with Stakeholders

As a good corporate citizen, Fujitsu will pursue a thorough understanding of the multiple needs and expectations of its stakeholders and pursue business activities to meet these needs and expectations.

### Specific initiatives:

 Build relationships with a diverse group of stakeholders, including NGOs and international organizations.

 Promote CSR activities along the following four dimensions: 1) ICT for everyone; 2) challenges; 3) environment; and 4) community engagement.

#### Contribution to Sustainable Development for Society and the Planet



### **FUJITSU Way**

The Fujitsu Way will facilitate management innovation and promote a unified direction for the Fujitsu Group as we expand our global business activities, bringing innovative technology and solutions to every corner of the globe.

The Fujitsu Way provides a common direction for all employees of the Fujitsu Group. By adhering to its principles and values, employees enhance corporate value and their contributions to international society and local communities.

### Activities to Disseminate the Fujitsu Way Promoting group-wide dissemination

In the Fujitsu Group, all companies around the world adopt the Fujitsu Way and reflect it in their activities, creating a unified direction for the enhanced corporate governance. Fujitsu Way leaders are selected from each group company or business unit to work with management, to make references to the Fujitsu Way in their messages to employees, and to disseminate it in ways appropriate to their organizations.

### Working with Fujitsu Way leaders

To ensure further dissemination of the Fujitsu Way, 250 Fujitsu Way leaders from Group companies in Japan were called for a joint conference in June 2010 to reconfirm the activity policy for FY 2010.

At this conference, in addition to the year's activity policy, some of the good practices of promotional activities within the organization were introduced. The detailed information regarding the Code of Conduct was shared and the obstacles

encountered in the course of the dissemination activities were discussed. Activities in line with the policy were implemented at workplaces, and the results are being monitored in order to further improve these activities.



The FY 2010 policy conference

### Providing more Fujitsu Way tools

Booklets explaining the Fujitsu Way and credit-sized cards are prepared in four languages (Japanese, English, Chinese and Korean) and distributed to Group employees around the world. Posters in 12 languages are posted at the workplaces. Top management videos are made available on the corporate intranet; President Yamamoto made one after his appointment in April, 2010. The e-learning contents are updated so that employees can further deepen their understanding of the Fujitsu Way at any time.

Furthermore, a new e-learning program has been designed for employees outside Japan and the course opened in April 2011. Currently, we are working to expand the language option for the booklet from 4 to 16 languages. These tools are aimed to be used in trainings and other projects as well.

### FUJITSU Way

Through our constant pursuit of innovation, the Fujitsu Group aims to contribute to the creation of a networked society that is rewarding and secure, bringing about a prosperous future that fulfills the dreams of people throughout the world.

	What we strive for:			Global Citizenship	We act as good global citizens, attuned to the needs of society and the environment.	
	Society and Environment	In all our actions, we protect the environment and contribute to society.	environment		We think from the customer's perspective and act with sincerity	
	Profit and Growth	We strive to meet the expectations of customers, employees and shareholders.	Pri	Firsthand Understanding	We act based on a firsthand understanding of the actual situation	
	Shareholders and Investors	We seek to continuously increase our corporate value.	nciples	Spirit of Challenge	We strive to achieve our highest goals.	
<u>(</u> 0	Global Perspective	We think and act from a global perspective.		Speed and Agility	We act flexibly and promptly to achieve our objectives.	
rporate	What we value:		Teamwork	We share common objectives across organizations, work as a team and act as responsible members of the team		
Values	Employees	e respect diversity and support individual growth.				
	Customers	We seek to be their valued and trusted partner.	nd trusted partner.			
	Business Partners	We build mutually beneficial relationships.	relationships. eWe comp we act we through innovation. eWe protect we act we we act we we we act we we we act we we we we we we we we we we		<ul><li>We comply with all laws and regulations.</li><li>We act with fairness in our business dealings.</li></ul>	
	Technology	We seek to create new value through innovation.			and respect intellectual property.	
	Quality	We enhance the reputation of our customers and the reliability of social infrastructure.		<ul> <li>We maintain confidentiality.</li> <li>We do not use our position in our organization for personal gain.</li> </ul>		

■ We use Field Innovation to find new approaches and the inspiration to improve ourselves, while delivering added value to our customers.

• We provide global environmental solutions in all our business areas.

Fujitsu Group companies work together to accelerate our global business expansion.

### **Organization Promoting CSR**

Four committees have been set up as the organization charged with the propagation and firmer establishment of CSR activities in accordance with the Fujitsu Way. Reporting directly to the Management Council, they are the Fujitsu Way Promotion Council, Risk Management Committee, Compliance Committee and the Environmental Committee.

Company-Wide Committees



### **Activities Promoting CSR**

Fujitsu, in order to make steady progress in addressing CSR priorities, is taking practical approaches under the leadership of the responsible business units.

In FY 2010, the CSR Promotion Task Force (see page 11) set up new working groups on basic strategy, communications, benefits to society, etc., with members coming from the various business units. Each working group set up key performance indicators (KPIs), distributed information, and investigated new examples of benefits to society and solutions to social problems.

### The Fujitsu Group and Its Stakeholders

The Group sees its customers, employees, business partners, shareholders and investors, and international society and local communities as its stakeholders. Particularly important stakeholders in international society and local communities are government authorities, NPOs and NGOs.

By holding dialogues with these stakeholders, we attempt to understand their various needs and expectations as we go about our business.



### TOPICS Holding Meetings to Study CSR Issues

In order to build a common understanding of CSR, we have invited experts to speak at seminars primarily for those responsible for CSR. Two such seminars were held in 2010 and attended by a total of 120 employees.

1st Seminar: Millennium Development Goals
2nd Seminar: ISO 26000 and Nippon Keidanren's Charter of Corporate Behavior



### A Comment from One of Our Speakers

Recently, with markets in developing nations attracting more interest, attention is concentrating on revolutionary business models that secure profits while solving social problems faced by low-income groups.

In the ICT area, mobile phones are being used to raise living standards, and great things are expected of the improved access to information provided by low-cost Internet technology. I would like to see enterprises actively participating in this.



Toshiya Nishigori United Nations Development Programme Tokyo Office, Public Affairs and Civil Society Liaison Officer

### Setting Key Performance Indicators

This year's Sustainability Report lists major examples and achievements in each of the five priority issues that the Fujitsu Group has started to address in line with its CSR Policy. All parts of the Group, when considering the Strategic Vision of the Organization, have previously seen "operating in harmony with society and the environment" as an essential prerequisite, and worked to improve the quality of management. From now on, CSR activities will be intensified to build a series of practical achievements. Key performance indicators (KPIs) have been set for the practical objectives of these activities, and CSR management will follow the PDCA cycle in implementing them.

### Supporting the United Nations Global Compact

Fujitsu announced its support of the United Nations Global Compact in December 2009.

The Fujitsu Group is committed to global CSR activities that uphold the 10 principles of the Global Compact.

In this, the FY 2010 edition of our Sustainability Report, the following CSR activities directly relate to the Global Compact.



•Human rights: principles 1–2

- ▶ P73-74 Diversity and Inclusion
- ▶ P76-77 Approach to Human Rights and Work Practices
- ▶ P83-84 Promoting Socially Responsible Procurement
- ▶ P93-94 Compliance

#### •Labor: principles 3-6

- ▶ P76-77 Approach to Human Rights and Work Practices
- ▶ P83–84 Promoting Socially Responsible Procurement
- ▶ P93–94 Compliance
- Environment: principles 7–9
  - ▶ P28–69 Protecting the Global Environment
- Anticorruption: principle 10
  - P83-84 Promoting Socially Responsible Procurement
     P93-94 Compliance

### Socially Responsible Investment (SRI) Ratings

Fujitsu has been incorporated into the SRI stock indexes and SRI funds listed below.

In September 2010, Fujitsu was selected for the Dow Jones Sustainability World Index for the 12th successive year, and continues to feature in the FTSE4Good Index. In February 2011, Fujitsu received the Silver Class Award from the Sustainability Asset Management (SAM) of switzerland as one of the top sustainability-conscious companies in Japan.

### Status of Inclusion in SRI-related Stock Indexes

Name of Index	Rating Company	
Dow Jones Sustainability Indexes (Asia Pacific)	Dow Jones Indexes (U.S.), SAM Group (Switzerland)	
Dow Jones Sustainability Indexes		
FTSE4Good Index Series		
	FTSE International, Ltd. (UK)	
FTSE4Good		
oekom research		
Corporate Responsibility Prime rated by oekom rie se a ric h	oekom research AG (Germany)	
Morningstar Socially Responsible Investment Index		
MS-SRI	Morningstar Japan K.K.	

#### Status of Inclusion in Major SRI Funds

Name of Fund	Operating Company
Sumishin SRI Japan Open (Good Company)	Sumishin Asset Management Co., Ltd. (As of March 2011)
Sompo Japan Green Open (Buna no Mori)	Sompo Japan Nipponkoa Asset Management Co., Ltd (As of April 2011)
Daiwa BlackRock Green New Energy Fund	Daiwa Asset Management Co., Ltd. (As of May 2011)
Nikko Eco Fund	Nikko Asset Management Co., Ltd. (As of May 2011)
Six Assets Balance Fund (Dividend Type/Growth Type) (Double Wing)	Daiwa Asset Management Co., Ltd. (As of June 2011)

#### What is the Global Compact?

The UN Global Compact consists of 10 principles in the four areas of human rights, labor standards, the environment, and anti-corruption with which companies should rigorously comply.

#### Human Rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and

Principle 2: make sure that they are not complicit in human rights abuses.

#### Labor

- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- Principle 4: the elimination of all forms of forced and compulsory labor;
- Principle 5: the effective abolition of child labor; and
- Principle 6: the elimination of discrimination in respect of employment and occupation.

#### Environment

- Principle 7: Businesses are asked to support a precautionary approach to environmental challenges;
- Principle 8: undertake initiatives to promote greater environmental responsibility; and
- Principle 9: 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.

As published by the UN Global Compact Office, October 2008

## Priority 1 Providing Opportunities and Security Through ICT

Fujitsu will contribute to the creation of a society where ICT connects and supports the world's seven billion people, providing them with security and opportunities to pursue their dreams.



USTAINABILITY REPO

# Highlights in 2010

### "K computer"\* –Computing to Create a Prosperous Future that Fulfills the Dreams of People

The growing list of complex and challenging problems faced by the world includes global warming, increasingly destructive natural disasters, depleted resources, and the emergence of serious new illnesses. Fujitsu looks toward a prosperous future that fulfills the dreams of people and is committed to rapidly finding solutions for the problems that stand in its way. This will mean gathering wisdom from the whole world and making rapid progress in advanced research.

The key to this is a supercomputer with the ability to process huge volumes of information and reveal to us the unseen future.

Fujitsu is cooperating with RIKEN, an institute of physical and chemical research, as part of the High-Performance Computing Infrastructure (HPCI) initiative led by Japan's Ministry of Education, Culture, Sports, Science and Technology (MEXT), by developing the K computer, with completion planned for 2012.

\*"K computer" (or 京, the Japanese character for quadrillion) is the name adopted by RIKEN in July 2010 or Japan's Next-Generation Supercomputer.



The K computer uses over 80,000 CPUs in parallel that provide high performance and reliability while consuming little power. In June 2011, while still under construction, the incomplete system set a world performance record.

### The World of Computer Simulations that the Supercomputer Makes Possible

The high processing speeds of which the supercomputer is capable enable it to model complex phenomena.

Such computer simulations make it possible to evaluate the effects of radiation or arrangements in space that would otherwise be dangerous, and to assess the conditions for phenomena on such a vast scale as to make actual experiments difficult.

### Safe & Secure Our lives will change.

### We will work to save every possible cancer patient.

How drugs work within the human body, and the actual complex mechanisms of life itself, are still not well understood. As the K computer refines our understanding and predictions, we can expect dramatic changes in the development of new



pharmaceuticals. For example, experimental evaluations have previously only been performed one by one on the vast numbers of candidate drugs, but once we have an understanding at the molecular level of the proposed remedy and its working on cancer cells, we can look into the fundamental problems in the expectation of developing effective drugs with few side effects.

### Detailed weather forecasts will minimize disaster damage.

While the accuracy of weather forecasts is improving year by year, further improvements require more precise data processing. This takes an inordinate amount of time on today's supercomputers, and they cannot keep up with actual weather



conditions. The high speeds of which the K computer is capable are expected to make detailed predictions of local heavy rain possible.

### Industry The way we make things will change.

### Efficiency will increase, without compromise on safety or performance.

Various computer simulations are already used in the complex design and development of rockets and aircraft, but current supercomputers can only calculate on the basis of components such as fuselages and wings, so wind-tunnel facilities built at great expense must be used. The K computer is expected to be able to handle the aircraft as a whole, reducing both the time and cost of development, while offering the decisive advantage of constructing aircraft with superior performance.



### Basic Science The unknown will be rendered visible.

### We want to know how the universe was formed and its future.

Various theories have been proposed for how the universe was formed. However, present technologies do not enable us to visit distant stars or galaxies for experimental proof. But this is where computer simulation comes into its own. The number of stars and the periods of time that can be handled are highly dependent upon the speed of data processing, and high performance supercomputers are essential. The K computer will give us glimpses of the distant future of the Earth and of humankind by simulating the phenomena of the universe.



### A Word from Fujitsu

### We are contributing to a prosperous "dream" future through Supercomputer Development.

Throughout recorded history, humankind has always dreamed of predicting the future, starting with the weather, typhoons and frost damage. In every age, sundials and astronomical observations were the most advanced technologies of their time, and aimed to discover the laws of Nature and to prepare for its vagaries. The high regard in which fortune-tellers and shamans were held by the rulers of their day tells us of the great importance that was attached to predictions.

Today, supercomputers have made it possible to grasp changes on many different scales, from the formation of the universe to the motions

of nuclear particles, and to make very precise predictions. We want to be a major resource in solving humankind's common problems, from measures against global warming and natural disasters, through saving resources and energy to curing serious illness. Through Fujitsu's supercomputer development and usage, we want to work with our customers to contribute to a prosperous and dream-inspiring future.



Masahiko Yamada Head of Technical Computing Solutions Unit

# Highlights in 2010

# Towards a Human-Centric Intelligent Society... Highly Reliable Cloud Computing Services for the World

Fujitsu, in deploying globally a secure cloud computing platform that achieves the world's highest reliability level (99.99% uptime), is concentrating on providing trusted cloud services that will minimize the consumption of resources and contribute to the formation of a sustainable society.



### Using ICT Effectively to Achieve a Sustainable Society

Large population increases, primarily among developing nations, are anticipated to take the world's population from today's 6.9 billion to 9.2 billion by 2050. The rate at which global resources are being consumed is increasing even faster than populations, and it is claimed that if all people were to enjoy the same standard of living as those in the developed nations, it would require 2.8 planet Earths.

Predicted increases in world population and resource consumption



Fujitsu believes that achieving sustainable development of international society under these circumstances will call for completely new concepts. Here, the key to finding solutions will be the effective use of ICT in virtual digital society.

The world's Internet connections topped two billion in 2010, and over 100 trillion e-mail messages were sent. Today's virtual society, free of physical restraints, is becoming the common platform for the peoples of the world.

We see the evolution of ICT, employed to maximum advantage while minimizing the consumption of resources, as a source of new value that can help the peoples of the world to achieve a sustainable society.

### A "Global-Scale Brain," Unfettered and Equal Access to a Business Engine for Everyone

To minimize energy consumption while working with our customers, local communities and the people of the world to

make a sustainable society possible, we are strengthening the systems installed in our data centers and the network access to the cloud services they provide.

The tremendous diversity and huge volume of data and information stored in the cloud platform can be linked and utilized to resolve society's problems and give birth to new knowledge.

We estimate that using this platform offers far greater energy efficiencies than can be achieved by processing the same volume of information with existing (physical) servers. This "global-scale brain," which can be used by everyone, constitutes an unimpeded and equally accessible business engine. Such are Fujitsu's cloud services.

### **Global Deployment of Trusted Cloud Services**

In providing cloud services used by many people, reliability is the highest priority. Data centers must also achieve further reductions in their energy requirements.

At Fujitsu, based upon the systems and products developed in our existing business, we have used computing technologies such as data-stream processing and distributed parallel processing in a tightly integrated vertical model to provide a trusted cloud service, one that our customers can use with confidence. Of our data centers deployed at over 100 locations worldwide, those in Japan, Australia, Singapore, the United Kingdom, Germany and the United States employ the latest on-demand virtual system services among other leading-edge technologies so as to achieve not only the world's top level of reliability (99.99% uptime) but also energy consumption efficiencies that are already five times higher than before and will be ten times higher by FY 2012.

At Fujitsu, we are working with our customers in various fields to help build a sustainable society on this "trusted cloud" base.

### A Word from Fujitsu

# We are discharging our corporate responsibility for society's infrastructure through the Trusted Cloud Service.

As the amount of energy consumed by each individual continues to increase, in conjunction with the world becoming "flat", means that the world's energy resources are becoming seriously depleted. Fujitsu sees its task as addressing this problem by keeping energy consumption to the minimum while marshalling the resources of ICT to devise means of sustaining growth. For us, Trusted Cloud Services not only provide society with an infrastructure that has the needed safety and security, but also discharges our dual social responsibility of using less energy and sustaining growth. For example, ICT can provide active awareness of the movements of people or things and cloud services can provide support for appropriate actions. In this way, wasteful consumption of electricity and the waste caused by those unfamiliar with proper operation can be avoided, and our actions can be optimized sustainably. Fewer energy resources will be consumed in building a better society. This is Fujitsu's purpose in providing Trusted Cloud Services.



Chiseki Sagawa Head of Planning Unit, Software Business Group

### Providing New Values Through ICT

There are many problems confronting humankind in the quest for a sustainable society. Fujitsu uses ICT to address these problems over many areas, and is creating values that will enrich the future.

### Society's Problems in Food and Agriculture

It is claimed that as many as 900 million of the world's population are starving. Japan can only supply 40% of its own needs for food, and that percentage is declining, while the average age of farmers (66 years old) is increasing and their numbers are dropping. Japan's declining competitive strengths in agriculture are a serious concern.

Fujitsu's Approach

### Example 1

### Using Cloud Computing and Knowledge Management to Foster Successors and Increase Competitive Strengths

With fewer members of the next generation to take over agricultural businesses, efficient knowhow transfer is a key issue. Fukuhara Farm, Ltd., in Shiga Prefecture, uses Fujitsu's cloud computer services to introduce an agricultural knowledge management system to reduce such transfer periods from 10 years to just four or five.

At Sowakajuen Co., Ltd., in Wakayama Prefecture, smartphones are used as data-gathering terminals for cloud computing services to extend the production of fine quality mandarin oranges. Hitherto, growth control of the fruit was made in bulk, orchard by orchard, but now it is done individually, tree by tree, so as to improve the quality of the fruit and products processed from it and strengthen the brand.

Fujitsu is using ICT to collect and analyze data on agricultural operations that previously depended upon the tacit knowledge and experience of individuals. The data for soil, weather, growing

conditions and the results of operation are collected and analyzed to make the factors visible, to help workers acquire higher skills and to strengthen the agricultural product brand, in this way helping to make agricultural business sustainable.



Collecting meteorological and other information from sensors (Sowakajuen

### Example **2**

### Using Pedometers to Support Cattle Breeding

Increasing the birth ratio of cows is an important priority for many livestock breeders and dairy farmers. Fujitsu, noting that when cows come into heat their amount of exercise increases anything from three- to six-fold, constructed a system that uses pedometers attached to the cows to graph the amounts they exercise and deliver the graphs over the Internet. It is positioned as a system for detecting the fertile periods of cows. The system has been adopted by the agricultural cooperative of Iki City (JA Iki), where it is expected that successful impregnations will be more than doubled. There is the additional advantage that inseminators will no longer have to stay up

all night in cattle sheds watching for cows to come into heat, which is a great improvement in their working conditions.

is contributing to the sustainable development of livestock breeding

Through this experience, Fujitsu



A pedometer attached to a cow's leg

### Social Problems in Health and Medicine

In 2030, the proportion of elderly people in the Japanese population is expected to exceed 30%, and coping with the soaring medical-treatment costs, nursing care and hospital/clinic cooperation is an important issue for society. These kinds of problem are expected to arise in the nations of East Asia and other areas in the future.

Fujitsu's Approach

### Example 1

### Medical Treatment at Home Using Smartphones

As the Japanese population ages, many more elderly people are living alone, and the costs of medical treatment are soaring. One response to this problem calls for changes that would make treatment possible at home.

"You Home Clinic" specializes in providing treatment at home, and since December 2010 it has been using Fujitsu's cloud computing services and smartphones to control the scheduling of home visits to patients, to check map information, to input vital signs, and to e-mail prescriptions. By adopting the service, twice as many patients as before could be visited at home with an improvement in the quality of medical care.

Fujitsu has over 30% of the Japanese market for electronic health records, and has made improvements to the environment of medical care. From now on, in the area of treatment at home, efforts will be extended to establish the environment for a recycling oriented economy in cooperation with services for private health-care companies and lifestyle support related services.



A doctor examining a patient at home

### Example 2

### Outsourcing ICT Services in Finland

An urgent issue for medical facilities is how to provide seamless information services to patients.

In 2009, Fujitsu worked with a Finnish social insurance institution to construct an electronic health record system for medical institutions throughout Finland, and in 2010 it entered a contractual agreement with Finland's third-largest city, Tampere, to undertake the outsourcing of ICT services for the Pirkanmaa Hospital District and eight administrative districts surrounding Tampere.

From November 2010, a broad range of ICT outsourcing services have been provided, linking information among research institutions, pharmacies and imaging centers of both local government and groups of hospitals.

This global experience will be used to ensure that Fujitsu continues to contribute to the good health of society.

and dairy farming.

### Social Problems in Transportation

There are an estimated one billion cars in the world now, and by 2030 the number is expected to exceed 1.5 billion. The financial costs of traffic jams in Japan are put at 2% of GDP, and it is not uncommon for this figure to exceed 3% in the overcrowded countries of Asia and the Middle East.

### Fujitsu's Approach

### Example

### Providing Vehicle Probe (Positional) Information

In 2007, the Fujitsu Group formed a research association, the Taxi Probe Commercial Viability Study Group, jointly with Denso Corporation and Panasonic Corporation to improve traffic-related and environmental problems by acquiring, processing and distributing positional information from several thousand taxis in the Tokyo area. In 2010, this effort was extended to trucks and buses.

Based on the information thus acquired and actual probe information, the research association was able to reduce CO<sub>2</sub> emissions by up to 30% by providing measures such as navigation functions that display the shortest routes. Fujitsu, by using this knowhow and deploying the SPATIOWL positional information service, will contribute to the solution of transportation problems including traffic jams and fuel costs.



Aiming to reduce traffic jams and fuel costs

TOPICS

### Social Issues in Education

Education is one of the fundamental infrastructures supporting the future of society and the economy. There is more need than ever for improvements in primary and secondary education, which form the basis for fostering the mental capacity, judgment and powers of expression that children need if they are to thrive.

Fujitsu's Approach

### Example

### Participating in the "Future School Promotion Project"

Introduction of ICT to the classroom makes children feel interested and motivated, and improves their understanding, while providing finely tuned educational support such as close linkage between school and home.

To promote the use of ICT in elementary schools, the Fujitsu Group has been participating in the Ministry of Internal Affairs and Communications' Future School Promotion Project since August 2010.The research provides each child with a tablet computer, each classroom with an interactive whiteboard, and each school with a cloud system to distribute learning materials etc. Given the appropriate ICT environment, children can learn from—and teach—one another and so enrich their learning experience. In future, we will contribute to education by promoting learning that is adapted to the children's situation.



Children sharing their approach to problems (Hiroshima Municipal Fujinoki Elementary School)

### Using a Supercomputer to Create New Values

### Contributing to the Revitalizing of Industry in the United Kingdom

In March 2011, Fujitsu was selected as a partner in a national project running through 2015 intended to revitalize industry in Wales. Two Welsh universities will play the central roles in introducing a supercomputer to be utilized by universities, public authorities and private companies. It is expected to create new employment opportunities and new businesses to achieve economic growth and technology improvement within the Welsh community.

Fujitsu, by promoting the global use of supercomputers, aims to create a prosperous and dream-inspiring future.

### Using a Supercomputer to Develop Treatments for Cancer Relapse and Metastasis

The University of Tokyo's Research Center for Advanced Science and Technology and Fujitsu worked together to build and operate a supercomputer system in August 2010 to develop pharmaceuticals for the treatment of cancer relapse and metastasis.

Thanks to this system, an R&D process that previously took three or four years of practical experimentation can now design synthetic antibodies in a matter of months.

### Increasing ICT Accessibility

To achieve a society in which the access to ICT is unaffected by regional or age disparities, or the existence of handicaps, so that all benefit equally from the advantages of ICT, we are actively promoting upgraded information communication networks and universal design.

### Our Basic Stance

The number of the world's Internet users has topped two billion, and ICT has become an essential part of the infrastructure that supports daily life. In stark contrast, however, broad-band Internet has hardly penetrated developing nations, and this information disparity (the so-called "digital divide") is a factor hindering economic development.

Fujitsu is introducing a number of initiatives to break down this digital divide so that all people of the world can have speedy access to information and an equal chance of making economic progress.

### Example 1

### Completion of an Indonesia Submarine Optic-Fiber Network

Fujitsu has collaborated with the German cable maker Norddeutsche Seekabelwerke GmbH (NSW) to complete the first Indonesian high bandwidth communications network, which links the islands of Java, Bali and Lombok, and Kalimantan and Sulawesi.

This "JaKa2LaDeMa" project provides PT Telekomunikasi

Indonesia with some 1,800km of high-capacity submarine cable and forms the infrastructure to support the Internet and the transmission of video and other data to the great benefit of daily life for the Indonesian people.



Installing the communications system

### Example 2

### Helping to Build China's ICT Infrastructure

Fujitsu has provided China Mobile Communications Corporation with over 500 units of UNIX servers and storage systems to handle massive amounts of data such as subscribers' information and billing for its 600 million-plus subscribers.

Fujitsu is providing highly reliable ICT infrastructure platforms to customers in telecommunications, education and government sectors throughout China. They are used for systems such as business support systems, business analysis systems and network control systems. Fujitsu will continue to provide highly reliable products and solutions in the Chinese market as a global ICT partner.

### Example **3**

### Scanner Sales Network Expands in Africa and China

PFU provides "fi-Series" professional document scanners for businesses that want to digitize large quantities of paper documents. Through a network of partners across the world it sells and supports in 185 countries and regions enabling it to achieve the leading market share globally. More recently, the demand for professional document scanners has been increasing in African nations such as Nigeria,Ghana and Gambia, driven by the adoption of electronic document processing by government and financial institutions. PFU's fi-Series has played an important role as an introduction of ICT.

Through stronger cooperation with distributors and resellers the distribution network across Africa was extended in 2010 to cover 46 African nations that can now benefit from the business efficiency and

productivity gains brought about by using PFU's fi-Series scanners.

The National Bureau of Statistics of China also chose 1,700 Fujitsu Group scanners and Chinese-language OCR software for China's Sixth National Census Project from November 2010, and the census benefitted from accurate and rapid preparation of the statistics.



Explaining products at a meeting in Ghana

### Example 4

### Telemedicine System Trials in Laos

Fujitsu, with support from Asia-Pacific Telecommunity (APT, an Asian international communications organization), has helped the move towards e-government in Laos. One step in this is, for example, constructing basic infrastructures for the introduction of a database at a central hospital and the opening of access points at provincial hospitals so that medical records/information can be shared. We are also working on constructing systems for an ICT environment that will support doctors in remote regions by enabling them to consult with colleagues via web-based teleconferencing and the two-way transmission of image data.

We will be using the knowhow acquired in this way to benefit the move to e-government in developing countries.



A telemedicine trial

### Universal Design–Equal Opportunities for All

The Fujitsu Group recognizes its social responsibility to create an environment that provides equal opportunities for a diverse range of people to use ICT effectively. With this in mind, we are working to promote universal design.

The Fujitsu Group positions universal design as an important corporate management strategy and we are proactively implementing it to meet our social responsibilities. By taking advantage of these results in our products and services, we will improve society's productivity, increase our customers' level of satisfaction, and contribute to their businesses.

Fujitsu Design Policy WEB

### http://www.fujitsu.com/global/accessibility/policy/

### Fujitsu Group ICT Universal Design Policy



### Example 1

### **Communications with Society**

The Fujitsu Group is active not only in using universal design for its products and services but also in publicizing its efforts to as many people as possible.

- Fujitsu submits its corporate website to JIS audits and is committed to improving its accessibility so as to reach the JIS "AA" standard.
- Fujitsu participates in the International Conference for Universal Design, which publishes research and introduces practical examples to encourage a society with high levels of

universal design. There, the Fujitsu Group shares its attitude and collects messages from participants on the theme "Universal Design for Tomorrow" for publication on its website.



Messages from participants

Messages on Universal Design for Tomorrow WEB http://jp.fujitsu.com/group/fdl/activities/ud2010/ message\_global.html (in Japanese)

### Example 2

### Raku-Raku (Easy-to-Use) Mobile Phones and PCs

The Raku-Raku Phone, a mobile phone whose delivery to NTT Docomo began in 2001 and proved very popular, achieved total shipments of over 19.3 million units through March 2011 as a simple-to-use design featured product incorporating multiple functions.

We also released the Raku-Raku PC series in 2008. These PCs include a Raku-Raku keyboard that allows the user to recognize at a glance the characters they want to input and features the Raku-Raku menu, which allows the user to start work immediately. These products strive for ease of use, simplicity, and user confidence and are optimal as products for senior citizens and beginners.



WEB

http://www.fmworld.net/product/phone/ FMV Raku-Raku Personal Computers (in Japanese)

http://www.fmworld.net/fmv/rakuraku/

### Example 3

### A Mobile Phone Application for Children with Special Needs

Children with special needs, including those with learning disabilities and autism, need support in learning to tell the time, communicate, think ahead and write letters.

Fujitsu has developed an application for the mentors and guardians of such children that consists of three modules for mobile phones: "Timer," "Picture Card" and "Handwriting" to help with living and learning. The children's understanding of the time, messages to be conveyed, and the order of strokes in writing Japanese characters are all helped by using color filters and vibration, etc., that take disabilities into account. The application can be downloaded free of charge from the Fujitsu website.

The application was developed by Fujitsu and tested in collaboration with Kagawa University's Faculty of Education (Sakai Lab), which is actively involved in employing ICT in education and support applications. After the tests, functionality and user-friendliness were further improved.

This initiative was recognized when Fujitsu was awarded the fourth Kids' Design Award in July 2010 and the Universal Design Award 2011 in March 2011.

WEB

A mobile phone application for Children with Special Needs http://www.fujitsu.com/global/news/pr/archives/month/2010/ 20101029-01.html



### Providing Reliable and Secure ICT Infrastructure

The need for stable operation of ICT is a given, and it is used in the areas of security and disaster prevention, where it supports safe and secure living. To deserve growing trust from our customers, we are implementing ongoing improvements to our products and services.

### Our Basic Stance

Today, as ICT supports the social infrastructure on which business and daily living are based, Fujitsu has a social responsibility to ensure stable systems operation.

Also, in order to respond to the world's growing needs for ICT in the areas of security and disaster prevention, Fujitsu is offering reliability and security.

### Example 1

### Launch of Next-Generation "arrowhead" Securities Trading System

Advances in finance industry technology and expansion in online trading have led to a need for greater speed in order processing and the distribution of market information. The Tokyo Stock Exchange (TSE) selected Fujitsu as a system partner and launched a next-generation

trading system called "arrowhead." "arrowhead" achieves world-level

millisecond-level speeds in both order processing and market-information distribution and provides the high reliability needed by TSE. The new trading system not only offers greater convenience to a wide range of users but also enables new styles of trading and the creation of new business models that promise to add momentum to the Tokyo market.



SE Market Center

### Example **2**

## World's Largest Class of Registry Information System Using Linux

Fujitsu has constructed a registry information system using Linux for Japan's Ministry of Justice. The system contains the nation's real estate, company and legal-entity registrations, comprising about 270 million real-estate registrations and about 3.5 million company and legal-entity registrations. The system supports the management of the above-mentioned information and daily data entry at about 450 registry offices. It is one of the world's largest Linux systems in the area of mission-critical tasks.

The registry information system is a gigantic, critically important

part of Japan's electronic government system, of which the number of applications puts it on a par with the social security system. This project has concentrated some 50 facilities scattered throughout Japan into four locations in the effort to reduce costs and boost reliability. Fujitsu will continue to discharge its social responsibility by the construction and stable operation of government systems.



Supporting a stable administration

### Example **3**

### A New Biometric Security System for ATMs in Brazil

Bradesco S.A. is Latin America's largest private financial institution (with 3,628 branches and 32,015 ATMs). Fujitsu has now supplied it with a Palm Secure biometric palm-vein authentication security system for its ATMs.

Dishonest use of ATMs is a serious social problem in Brazil, and several biometric authentication systems were studied for adoption. The high evaluation of Palm Secure's outstanding authentication accuracy and the resistance of vein patterns to external tampering led to the adoption of Fujitsu's system. Palm Secure contributes to safety and security within Japan and

around the world with a widening range of applications for buildings and room access, including PC login.



Introduction of biometric security for ATMs

### Example 4

### Contributing to the Return of the "Hayabusa" Asteroid Probe

The Japan Aerospace Exploration Agency (JAXA) launched the "Hayabusa" asteroid probe in May 2003. Fujitsu helped to ensure the success of this mission by developing and operating a number of key systems, including the orbit determination system that determined its position and speed, and the real-time satellite status monitoring and fault diagnosis system that automatically detected equipment faults.

"Hayabusa" overcame a number of problems, secured the world's first asteroid samples—fine particles from the Itokawa asteroid—and returned to Earth in June 2010. Fujitsu continues to provide development and operational support for JAXA's ground systems and is committed to furthering the development of Japan's space technology.



The "Hayabusa" asteroid probe. (Illustration: Akihiro IKESHITA)

### Quality that Builds Trust, Safety and Security

The Fujitsu Group attaches fundamental importance to product quality in all corporate activities so that everyone can enjoy the benefits of ICT in security. Again, the priority is not on satisfying ourselves but on making products that satisfy our customers by providing the quality they expect.

To provide these high-quality products and services, Fujitsu has constructed and operates a quality management system (QMS). In operating this system, Fujitsu periodically verifies the progress of the PDCA (plan, do, check, act) cycle in the light of ISO and other international certification standards.

To further increase our customers' trust in the Fujitsu Group, we implement quality management using QMS in process improvement.

### Our QMS-Centered Quality Assurance Activities



### The Pursuit of Quality and Safety

Fujitsu responds by anticipating changes at our customers and their business environments so as to continue providing them appropriate products and services. At every stage from design through evaluation, production, to sales and support, we perform our quality improvement activities in line with the following principles.

### **Quality Principles**

- 1. We pursue quality from the customer's perspective.
- 2. We build in quality that anticipates changes.
- 3. We achieve quality consistent with our social responsibilities.
- 4. We use first-hand feedback based on the actual situation.
- 5. We work with our business partners to improve quality.
- 6. We seek to make public quality-related information transparently.
- 7. We foster employees who think about quality.

Based on the policy of emphasizing safety in all aspects of our business activities, we strive for assured safety in product designs, collection and the publication of information on product-related problems, and rapid response to such problems.

### Our Approach to Promoting Quality Assurance

Fujitsu has established a group dedicated to quality improvement within each division and each Group company so that we can provide high-quality products and services to our customers.

Also, through the Quality Assurance Unit, which consists of representatives of these dedicated groups, we work to develop countermeasures through information sharing and by improving support structures, which transcend the organizational framework. In this way, we work to establish a QMS that creates added value for the customer.



### Promotional Activities Qfinity Activities

Since 2001, Fujitsu has implemented Qfinity\* activities, which are independent quality improvement activities, in all divisions. The Qfinity concept emphasizes a quality improvement model using the PDCA cycle that exhaustively pursues not only better product functions and reliability but also quality improvements in all phases of work, including efforts to improve customer response and delivery and reduce costs.

In each division, we are moving forward with efforts on themes that reflect the division's major policies and the issues that arise in the workplace on a daily basis. Project activities include both group activities concerned with a specific theme and individual activities to propose reform and improvement based on their findings. In principle, all Fujitsu employees participate in at least one of these activities.

- •FY 2010: Approx. 5,700 project initiatives
- •FY 2010: Approx. 94,000 improvements/proposals

Using the web-based Qfinity information system on our intranet, all Qfinity information can be shared interdepartmentally, enabling us to do the benchmarking of the other divisions' objectives and processes, and to acquire information and knowledge such as technologies, know-how and other expertise.

### Qfinity Group-Wide Quality Improvement Activities



\*Qfinity: The word Qfinity was created by combining "Quality" and "Infinity" to express the concept of our commitment to the infinite pursuit of quality.

### Providing Reliable and Secure ICT Infrastructure

To make the successes of Fujitsu Qfinity activities widely known within the Group, we provide information to each Group company through the Qfinity website on our intranet and also hold a Group-wide Qfinity conference every year at which exemplary cases of Qfinity activities and awards are presented.

Every year, these Qfinity activities are collected into a handbook and distributed throughout the Group.





The Qfinity handbook

Group-wide Qfinity meeting

### Customer-Centric Quality Assurance Activities for Products and Services

In providing products and services, we adopt the customer-centric perspective. A customer-centric approach means understanding the issues from the customer's point of view. This attitude is central not only at the design review stage but also at every stage of each process, where we ask "does it meet customer needs and expectations?" as we perform the evaluations and audits.

Through this approach, items that do not meet customer expectations are withdrawn and not allowed to proceed to later processes.



Flowchart for Quality Assurance Activities

Fostering Experts Who Support Product Safety

In supporting product safety, since 2003 we have fostered Product Safety Experts who are approved under the Company's own system of approvals to check product safety. When they are unable to confirm safety, the affected product cannot be given final approval for shipment. These experts must be qualified in safety standards including Japanese, international and Fujitsu's own standards and must also check designs to ensure that previous product faults have been prevented from recurring.

The concept of preventing product accidents before they can occur is becoming more important than ever. This calls not only for familiarity with the accidents or hazards associated with the product and with others possessing similar functions and structures, but also for practical knowledge and assessment of any potential risks associated with the product itself and the way it is used, viewed from the perspective of the user.

This is why, in FY 2010, we established Company internal standards for implementing product safety risk assessments and trained risk assessors. We have now started using these for PCs. From now on, risk assessors will be used for a widening range of products as we seek to further increase product safety.



Training product safety risk assessors

### Satisfaction and Quality Surveys by Third-Party Organizations

The products and services provided through Qfinity and other activities are only delivered and provided when they reach the level expected by our customers.

We also implement customer-satisfaction and quality surveys by third-party organizations for these products and services, and have received particularly good results for customer satisfaction with reliability (in FY 2010 surveys covered some 1,000 companies). As a result, when this information is circulated to all parts of the Company, it can be reflected in developing the next products and services. Moving forward, we will continue to work to improve quality through the twin pillars of Qfinity activities and various surveys.





Improvements to processes, products and services

### Priority 2

# **Protecting the Global Environment**

Fujitsu will contribute to the resolution of global environmental challenges through ICT, while at the same time reducing the Fujitsu Group's own environmental footprint.



Target effects on and contributions to biodiversity

Establish Integration Index

Benefiting Customers and Society P43-54

Provide Green ICT to reduce CO<sub>2</sub> emissions by customers and society

Eliminated m tons (cumulative since FY 2009) Recycle ICT business equipment globally

Environmental efficiency factors of green products Achieved

(ref. FY 2008)

5% reuse rate

Increase proportion of renewable energy used

4.8 times (ref. FY 2007)

Reduce emissions of

Pursuing Internal Reforms P55-62 P65-69

greenhouse gases

reduction (ref. FY 1990)

Reduce CO<sub>2</sub> emissions in domestic distribution

reduction (ref. FY 2008)

# Highlights in 2010

# Green Policy Innovation: Working with Customers to Create a Prosperous Low-Carbon Society

The Fujitsu Group promotes Green Policy Innovation as a project to lower customers' environmental burdens using Green ICT. This initiative seeks to seed the new technologies for reducing the burden on the environment, and put them into practical use through in-house practice. By providing a more advanced, greater variety of Green ICT, we work with our customers to realize a prosperous, low-carbon society.



Policy

novation

### Our Global Target: Reduce CO<sub>2</sub> Emissions by More than a Cumulative 15 Million Tons over Four Years

Green Policy Innovation is a project to provide the products, solutions and services that embody environment-conserving technologies and knowhow developed within the Fujitsu Group with the aim of reducing the environmental burdens of customers and society as a whole.

As a global ICT enterprise group, Fujitsu has set a global target to make a significant contribution to cutting the emission of greenhouse gases. This calls for reducing CO<sub>2</sub> emissions by more than a cumulative 15 million tons over the four-year period from FY 2009 to FY 2012. The whole Fujitsu Group is actively engaged in achieving this target.

Innovation, in the shape of new technologies that contribute to reducing environmental burdens, is the driving force of this project. To realize a prosperous, low-carbon society, the development and practical application of a more advanced, greater variety of Green ICT is essential. The Fujitsu Group promotes developing leading-edge Green ICT, and works toward practical use of new technologies for reducing environmental burdens through in-house practice (as reference models). Technologies that prove reliable and effective are leveraged in the Green ICT we offer to our customers, further strengthening our Green Policy Innovation initiative.



### In-House Implementation of Advanced Green ICT

To achieve the practical use of new technologies for reducing environmental burdens, they must be applied in-house (as the "reference") as the essential validation of their reliability and effectiveness.

By adopting such load-reducing new technologies promptly within the Fujitsu Group, we can use the accumulated expertise and know-how in new products, solutions and services. Through this practical implementation approach using new technologies in the workplace, whether in R&D, offices, factories, data centers, or in management, we aim to acquire a wide range of practical know-how and use ICT to further improve the quality of Fujitsu's environmental management.

Tetsuzo Ozawa, Director, Environmental Reference Department, Corporate Environmental Strategy Unit

### **Environmental Management Dashboard and Power Dashboard**

We have established and started to introduce Environmental Management Dashboards in daily environmental management. These automatically collect information from various sources, derive targets for management and actions by processing it, and make it visible on purpose-oriented displays to give support in the decisions and judgments of executives and managers, and the individual actions of general employees.

Similarly. Power Dashboards have been created to make each business location's electric power consumption visible, and have been used to save summertime electricity usage and to minimize the effects of earthquakes.





A Typical Environmental Management Dashboard Display

### Optimizing Natural Energy Usage

The amount of natural energy supply is weather-dependent, so achieving the best distribution balance between supply and electricity storage is necessary to stabilize availability and spread utilization. At our Kawasaki Plant, the solar power generation system is combined with electrical storage batteries, and supercomputer simulations are being used to control the storage batteries, to develop the technology to use excess electrical

power and to smooth loads. This technology will contribute to realizing the smart communities and the smart cities in the future.

Demand



### Using the Cloud in Manufacturing (Engineering Cloud™)

We are moving CAD, analysis, simulations, and product databases, which are all essential to manufacturing, into the cloud. Concentrating servers offers reductions in power consumption and costs and promises to accelerate technology development. High-speed graphic compression techniques developed within the Fujitsu Group are used to smooth remote network access and high-speed graphic displays, while adoption of the thin client approach provides a pleasant, stress-free operating environment for manufacturing.



#### Numazu Software Development Cloud Center TOPICS

Between FY 2008 and FY 2010, this center used our own products to bring together six separated domestic facilities for the development environment, forming a cloud-based concentration of the servers. Through this process, it reduced the number of servers from about 1,800 to about 1,000, achieving a cumulative reduction in CO2 emissions of 2,660 tons over the three years. In future, this know-how of concentrating servers and creating a cloud environment will contribute to a wide range of reductions in environmental burdens of our own and our customers'.

We are also making power consumption visible, so that the

amount used by individual ICT equipment can be identified, switching off storage devices by the linkage to servers, and measuring the temperatures of air at the inlets and outlets of servers so that local hot

spots and cold spots can be reduced to raise the efficiency of air conditioning. These measures, among others, will reduce our CO<sub>2</sub> footprint by 1,036 tons in FY 2011, and we remain committed to further reductions.



An inspection tour course of the Numazu Software Development Cloud Center

# Highlights in 2010

Green Policy Innovation: Working With Customers to Create a Prosperous Low-Carbon Society

Promoting Green Policy Innovation 2 Reducing Customers' Environmental Footprints through ICT

### Japan Advanced Institute of Science and Technology (JAIST) in Hokuriku Up to 151.5 Tons of CO<sub>2</sub> Reduction per Year

Working to Increase the Efficiency of Server Utilization

JAIST was founded in 1990 as a national graduate school to perform world-class advanced technology research and to provide post-graduate education. Its campus is among richly wooded hills overlooking the Kaga Plain and it is actively engaged in environmental preservation.

Their environmental approach is reflected in system configuration. For example, thin client computers were adopted for the personal use of students, academic and administrative staff in 2006, and about 120 servers were used to configure the internal ICT environment under integrated control.

In line with this approach, JAIST focused on improving the efficiency of server utilization. Servers were prepared based on predictions of the maximum access numbers and peak load times, but in reality, the usage frequency of servers differed between students, academic and administrative staff and varied with time. JAIST therefore aimed to configure an ICT system that provided the necessary computing environment as and when it was needed.



Presentation of Minister of the Environment Award for the Prevention of Global Warming

In December 2010, the "private cloud" implemented at JAIST, with its significant reduction in ICT equipment energy usage, received the Ministry of the Environment's 2010 award for activities to prevent global warming (Category: Technology Introduction and Diffusion).

### Integration and Virtualization to Increase Server Utilization Efficiency, Cut CO<sub>2</sub>

JAIST saw virtualization of servers and a cloud-based computing environment as central to optimizing the usage of every individual server. JAIST worked with Fujitsu on the validation of small-scale environments over several years and finally established the university's own private cloud environment in 2010.

This private cloud integrated and virtualized the former about 120 servers in only 51 physical servers, enabling a dramatic increase in usage efficiency. Air-conditioning efficiency was also increased by ducting cooled air directly into the server racks and optimizing the arrangement of racks.

Validation of the environmental efficiency of this system revealed that its introduction reduced electrical power and space to save up to 151.5 tons of CO<sub>2</sub> per year, a reduction of 56.9%.



Special ducts that supply cooled air directly within racks and improve server cooling efficiency

The effective introduction of ICT throughout society leads to its enhanced prosperity. The Fujitsu Group is committed to providing the Green ICT through which both we and our customers can create a prosperous low-carbon society.

WEB

Green Policy Innovation–a project to reduce the environmental burdens by adopting Green ICT http://www.fujitsu.com/global/about/environment/green-it/







### Stakeholder's Voice

# Taking up the Challenge of System Efficiency Improvements

Ever since the school opened, we have consistently sought to reduce power consumption and configure environmentally friendly systems by choosing low-power-consuming hard disks.

This time, by improving the efficiency of server usage, we have significantly reduced the number of servers and the power consumption. At the same time, we greatly reduced the space they required and by making changes to the cooling system we have also increased air-conditioning efficiency.

We continue to address the challenge of ongoing improvements to system efficiency.



Mikifumi Shikida, Associate Professor Center for Information Science, Japan Advanced Institute of Science and Technology

### A Word from Fujitsu

# Partnering with JAIST; Always Aiming for Leading-Edge Technology

JAIST had already been working on the virtualization of clients, and had completed this for all users. This was where the present system started, and the customer's insistence on being right at the forefront of advances was a great example for our sales and system engineers. In future, we intend to continue as a useful partner, working closely with JAIST.



Akio Nagata, Fujitsu Hokuriku Systems Noriaki Sunada, Fujitsu Hokuriku Branch Yusuke Yamazaki, Fujitsu Hokuriku Systems

# Highlights in 2010

# "Let's Make a Nationwide Dandelion Front Map Together!"

Interest in or fascination with the plants and animals familiar to us in our daily lives can be a starting point for the conservation of biodiversity. The call "Let's Make a Nationwide Dandelion Front Map Together !" springs from the idea that ICT could become the occasion for turning peoples' interest towards familiar animals and plants.

### STEP 1 By Fujitsu Employees and Family Members

### Using ICT to Create Enjoyable Opportunities for Encountering Nature

Japan's National Strategy for the Conservation and Sustainable Use of Biological Diversity in 2010 included as one of its targets conservation of the special features of plants, animals and ecosystems characteristic of specific localities, and the formation of a network of such ecosystems to maintain and restore biodiversity by 2020.

To contribute to this conservation of biodiversity at the local level, in April 2010 the Fujitsu Group started to survey the distribution of dandelions using our own ICT.

The survey made use of Fujitsu FIP Corporation's Mobile Photo System and Fujitsu's On-Demand Virtual System Service\*, accumulating photos of dandelions taken by mobile phones with GPS functions in a graphic database, using location information and mapping to view and analyze the data. The survey was performed by Fujitsu employees and their families from April 2010 through February 2011, and received some 1,400 graphic dandelion data sets. Employees who participated reported that the project enabled them to enjoy time with their families while bringing them closer to nature.

\* On-Demand Virtual System Service: The ICT infrastructure including servers and storage was provided as a virtualized cloud service using network access to Fujitsu data centers.

### STEP 2 Citizen Participation in Activities

### Spreading Interest in Biodiversity to as Many as Possible

Pursuing internal

reforms

Benefiting customers

and society

Medium-term environmental vision Green Policy

Conserving biodiversity

This success encouraged us to believe that a familiar plant like the dandelion could serve to increase interest in biodiversity throughout Japan, so survey participation was extended from employees to the general public. This started as "Let's Make a Nationwide Dandelion Front Map Together !" in February 2011.

The survey had two main objectives. One was to investigate the position of dandelions in the biosphere and the effects of global warming by mapping the dandelion fronts nationwide. The other was to bring people closer to nature and so spread awareness of the importance of biodiversity among as many people as possible.

People were able to participate simply by taking photos on their GPS-equipped mobile phones and attaching the location and time information when they mailed the photo to the survey E-mail address.

### The survey used the Mobile Photo System and the On-Demand Virtual Service.





### STEP 3 Finalizing the Nationwide Dandelion Front Map

### Shaping a Shared Desire to Cherish the Natural Environment

From the new start in February 2011 through the following June, a total of some 9,700 graphic data sets on dandelions were gathered.

Aichi University of Education (a national university) cooperated with Fujitsu in classifying the collected dandelion data into indigenous and non-native varieties, estimating the date on which they flowered, and created the first Japanese nationwide map of dandelion fronts that distinguished between non-native and indigenous varieties (including specifically the white dandelion\*, *taraxacum albidum*), and published them on the website.

ICT links and shapes the wishes of those who value nature. Fujitsu, as an ICT enterprise, is committed to benefitting biodiversity through various uses of ICT, and will continue to configure regional bio-networks and databases for bio-information.

\* White Dandelions: This variety thrives in western Japan, and the northward expansion of its habitat is attributed to global warming.

### Stakeholder's Voice

### **Biodiversity as It Affects Dandelions**

We who live in the 21st century have no choice but to form a sustainable society based on biodiversity. Conserving biodiversity is also vital to make possible the continued future use of biological resources. Investigating specific living things also reveals to us how we are affecting them. This includes dandelions.

For example, if we examine the areas in which the indigenous Japanese dandelion (a typical harbinger of spring) is found, we see that its distribution shrank as urbanization spread. Conversely, if we examine where it still thrives, we will find certain urban areas where environments that predate Japan's era of high economic growth still survive from when the Japanese lived in harmony with nature. The Japanese dandelion may even provide clues on how to live in comfort and peace—in an environment in harmony with nature.



By all means let us try to think of biodiversity in terms of the living things most familiar to us, starting with the humble dandelion.

Mikio Watanabe, Professor Aichi University of Education (a national university)







### Fujitsu Group Environmental Management

We recognize environmental protection to be an imperative for us as a global ICT corporation and, together with our customers and society, we strive for sustainable growth and development while working to reduce our environmental burden.

### Operating in Harmony with Nature as the Starting Point for Fujitsu Environmental Management

The Fujitsu Group has pursued "operating in harmony with nature" since its founding in 1935. Environmental conservation is one of our highest priorities, and our environmental management is guided by Corporate Values enshrined in the Fujitsu Way, that "in all our actions, we protect the environment and contribute to society."

### Growing Together with Society and Our Customers

The realization of a low-carbon society is one of the central challenges for humanity in the 21st century. To achieve this, it will be necessary for society as a whole to find more environmentally friendly ways to work and live. Multifaceted support from ICT is an increasingly important part of these efforts.

### The History of Fujitsu's Environmental Activities

- 1935 Park-style design adopted for new Kawasaki Plant at the suggestion of Fujitsu's founder, Manjiro Yoshimura
- •1938 Kawasaki Plant completed
- •1972 Environmental control sections established at each plant
- •1989 Environmental Committee established
- •1991 Environmental Engineering Center established
- •1992 Fujitsu's Commitment to the Environment formulated
- 1993 Fujitsu Environmental Protection Program (Stage I) formulated
- 1997 All domestic manufacturing sites certified ISO 14001 compliant

Given this background, we revised the Fujitsu Group Environmental Policy in April 2011. The Fujitsu Group Environmental Policy spells out our ideals and directions to promote environmental management that reflects the uniqueness of the Fujitsu Group enterprise. In the latest revision, we state that "We proactively promote environmentally conscious business activities to help the environment and economy coexist harmoniously." as one of those directions. While it goes without saying that we contribute to reductions in both our customers' and society's environmental burdens, this policy aims to grow our business to achieve sustainable growth and development for the Fujitsu Group along with our customers and society.

WEB Fujitsu Group Environmental Policy http://www.fujitsu.com/global/about/environment/approach/policy/

- 2000 Corporate Environmental Strategy Unit established
- 2002 Fujitsu Group Environmental Policy established
- 2006 ISO 14001 globally integrated certification acquired, including overseas Group companies
- \* 2007 Environmental Burden Reduction Project by Green ICT, Green Policy Innovation, started
- 2008 Green Policy 2020 medium-term environmental vision formulated
- 2009 Biodiversity Action Principles formulated
- 2010 Fujitsu Group Environmental Protection Program (Stage VI) formulated


### Based on Explicit Concepts and Vision

To instill all Group employees with the concept of "operating in harmony with nature," which is the starting point for environmental management, we stipulate our "Green Policy 21" environmental concept. Based on this concept, we implement continuing environmental activities in all our business areas.

Furthermore, Green Policy 2020 is our medium-term environmental vision, which indicates the directions and roles that the Fujitsu Group must play as targets for 2020. Green Policy 2020 stipulates three targets, benefiting our customers and society, pursuing internal reforms, and conserving biodiversity, and sets up specific topics to work on in achieving these targets.

WEB Environmental Concept "Green Policy 21"

http://www.fujitsu.com/global/about/environment/approach/greenpolicy21/

Medium-Term Environmental Vision "Green Policy 2020" http://www.fujitsu.com/global/about/environment/approach/greenpolicy2020/

## Reducing Environmental Burdens Based on Global Targets

Since December 2007, the Fujitsu Group has been promoting the Green Policy Innovation initiative to reduce our customers' environmental burden using green ICT to achieve the Green Policy 2020 vision's goals. Under the initiative, we provide customers with solutions and ICT infrastructure that leverage the accumulated technologies and expertise of the Fujitsu Group with the aim of lessening the environmental burden from companies and society in general.

#### Medium-Term Environmental Vision: Green Policy 2020

Fujitsu's Green Policy 2020 vision proposes a transformation of the Fujitsu Group into an organization with low-carbon corporate activities while it works to create technology solutions in collaboration with a variety of independent parties. It envisions these efforts realizing a low-carbon and prosperous society.



In December 2009, we established the target of helping to reduce  $CO_2$  emissions by at least 15 million tons worldwide over the four years from FY 2009 through 2012, and have been promoting the provision of green ICT while working for cooperation with local regions throughout the world.

## New Environmental Action Plan Strengthens Environmental Activities Globally

Then, in April 2010, we created the Fujitsu Group Environmental Protection Program (Stage VI) that covers FY 2010 through FY 2012 based on back projections from our Green Policy 2020 vision and recent global environmental issues such as climate change and biodiversity conservation (see pages 37 and 38).

We will continue to reliably implement environmental action plans as a unified group and work to realize a prosperous low-carbon society.

### First Certification as an "Eco-First Company" in the IT Services Industry



In September 2010, the Fujitsu Group was certified as an Eco-First Company under the Ministry of the Environment's Eco-First Program. This was the first such certification in the IT services Industry.

The Eco-First Program encourages even further actions related to environmental protection by industry leading companies. Under this system, each corporation promises the Minister of the Environment that they will make efforts to protect the environment, for example, by measures to counter global warming or conserve biodiversity.

### Environmental Concept: Green Policy 21

At Fujitsu, we place our global scale environmental activities, called "Green Policy Earth," at the core of our environmental concept and position the specific activities to implement these as our Green Policy Products, Green Policy Factories, and Green Policy Solutions. We further position the mechanism that supports these activities as Green Policy Management.



## Targets and Results for the Fujitsu Group Environmental Protection Program (Stage VI)

Fujitsu instituted a new action plan for the period from FY 2010 through FY 2012 and aims to achieve its goals while practicing the PDCA cycle steadily.

## Setting up an Action Plan and Targets for the Period from FY 2010 through 2012

In April 2010, we created the Fujitsu Group Environmental Protection Program (Stage VI) to run from FY 2010 to the fiscal year ending March 31, 2013 (FY 2012).

The program is based on the three targets established in the Green Policy 2020 and defines six key areas: strengthening advanced green ICT R&D, improving the environmental value of products and services and strengthening the development and provision of green ICT, strengthening efforts to reduce the environmental burden from the Group itself, strengthening our foundation for environmental management, promoting activities that make environmental contributions to society, and promoting activities that conserve biodiversity. Moreover, we have established a further 18 items to serve as specific program targets.

## All FY 2010 Targets Achieved

We succeeded in achieving all of the targets set in the Fujitsu Group Environmental Protection Program (Stage VI) for FY 2010.

Furthermore, since we achieved results significantly better than the targets for certain of the items (R&D on advanced green ICT, environmental efficiency factors, renewable energy, CO<sub>2</sub> reduction in distribution and transportation), we raised the targets.

We will continue to use the PDCA cycle and work toward the FY 2012 goals.

Targets (FY 2011)



Targets (FY 2010)

2.7 times

9% reduction

60% materials suppliers'

procurement rate ("no. of

companies" rate)

4.8 times

18% reduction

62.7%

10 times

16% reduction

80%

10 times

15% reduction

100%

Performance (FY 2010)

Targets of Fujitsu Group Environmental Protection Program (Stage VI) http://www.fujitsu.com/global/about/environment/management/ program/stage6/

(FY 2012)

elated

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Status

#### Strengthen advanced green ICT R&D Develop technologies for next-generation datacenters and networking that will double overall efficiency of ICT products by end of FY 2012. By end of FY 2012, more than 70% of all technology developed will be solutions for reducing the burden on the environment.\* 1.2 times 1.3 times 1.5 times 2 times Strengthening advanced • 58% areen ICT R&D 25% •60% •70% Develop & deliver green ICT to contribute to customers 5.26 million tons 5.60 million tons 9.55 million tons 15 million tons and society. or more Provide green ICT that will reduce cumulative CO<sub>2</sub> emissions by 15 million tons over FY 2009–12 period. Develop and provide Eco-friendly products (Super Green products). 17% 10% or more 20% or more 30% or more With respect to newly developed green products in all departments, Super Green products that contribute to reduced environmental footprints through low energy and resource demands must comprise 30% by end of FY 2012. Benefiting customers Improving the Develop and provide Eco-friendly products (environmental efficiency factors). With respect to newly developed green products in all departments, the environmental efficiency must be raised to 4.0 times the FY 2008 value by end of FY 2012. and environmenta Raise to 1.5 Raise to 3.2 Raise to 3.5 Raise to 4.0 society value of products and services, and enhancing the development Promote product recycling. Sustain 90% resource reuse rate of business ICT equipment globally at Fujitsu recycling centers. Sustain 90% 93 3% Sustain 90% Sustain 90% and delivery of green ICT Develop and provide environmental solutions. Departmental Departmental Departmental Departmental Promote the development and provision of environmental solutions in all areas, including industry, transport, business, households, and energy conversion sectors. and regional and regional and regional and regional coverage rate: coverage rate: coverage rate coverage rate: 70% 78% 85% 100% Expand provision of environmental solutions in major regions, including Japan, Europe, Americas, and Asia/ Pacific. Reduce greenhouse gas emissions 2.5% reduction 11.7% reduction 3% reduction 6% reduction Reduce total greenhouse gas emissions associated with manufacturing globally to 6% below FY 1990 levels by end of FY 2012 (Co.: 5% reduction, other greenhouse gases: 20% reduction).

## Fujitsu Group Environmental Protection Program (Stage VI)

Item Breakdown

Reduce greenhouse gas emissions (renewable energy)

Increase use of renewable energy sources to 10 times FY 2007 levels by end of FY 2012.\*

Reduce CO<sub>2</sub> in transport and distribution. Reduce CO<sub>2</sub> emissions from domestic transport to 15% below FY 2008 levels by end of FY 2012.\*

Promote business partners greenhouse gas reduction.

Promote procurement from business partners that limit

or reduce greenhouse gas emissions.

Green Policy 2020 Three Targets

Action Plan Item

37 2011 FUJITSU GROUP SUSTAINABILITY REPORT

Enhancing

efforts to

reduce the

footprint

Fujitsu Group's

environmental

Pursuing

internal

reforms

## Green Policy Innovation–Achievements in Reducing CO<sub>2</sub> Emissions

Since FY 2007, the Fujitsu Group has been promoting the environmental burden reduction project by Green ICT, Green Policy Innovation. In FY 2009, Fujitsu set a global target of cutting CO<sub>2</sub> emissions by more than 15 million tons over a four-year period from FY 2009 to 2012. During FY 2010, we exceeded our targets and contributed to a total CO<sub>2</sub> reduction of 3.23 million tons, comprising 0.67 million ton from providing Green Policy Products, which are eco-friendly ICT infrastructure products, and 2.56 million tons from providing Green Policy Solutions, which are ICT solutions that contribute to reducing environmental burdens for a cumulative total of 5.6 million tons from FY 2009.

## $\ensuremath{\mathsf{CO}}\xspace_2$ Emissions Reduction Targets and Achievements through Green Policy Innovation



Green Policy 2020 Three Targets	Action Plan Item	Item Breakdown	Targets (FY 2010)	Performance (FY 2010)	Targets (FY 2011)	Targets (FY 2012)	Status	Related Pages
	Enhancing efforts to reduce the Fujitsu Group's environmental	Factory improvements (chemicals) Reduce output of priority chemicals to 10% below FY 2007 levels by end of FY 2012.	4% reduction	48% reduction	7% reduction	10% reduction	$\checkmark$	P58
		Factory improvements (waste) • Reduce waste generation to 20% below FY 2007 levels by end of FY 2012. • Maintain zero waste emissions at factories in Japan.	•11% reduction •Status maintained	•20.1% reduction •Status maintained	•13% reduction •Status maintained	•20% reduction •Status maintained	$\checkmark$	P57-
	footprint	Office improvements Achieve four-star rating or better under the Green Office plan for every office by end of FY 2012.	Japan: trials using new standard Internationally: field survey	Japan: trials using new standard Internationally: field survey (completed)	Japan: 70% Internationally: draft evaluation standards	Japan: 100% Internationally: trial implementation	$\checkmark$	P60
Pursuing internal reforms	Strengthening environmental governance	Continuously improve globally integrated environmental management systems. • Promote further ICT deployment for environmental management, build smart environmental management systems. • To improve environmental performance, by the end of FY 2012 we intend to apply a framework of assessments for the extent of target achievement and the compliance situation of 100% of Group main domestic production companies.	Customization and trial of remote communications     Establishment of performance assessment procedures	<ul> <li>Trial implementation</li> <li>Performance assessment procedures established</li> </ul>	Block application rate: 50%     Trial     implementation	<ul> <li>Block application rate: 75%</li> <li>Expand as far as domestic manufacturing group companies</li> </ul>	$\checkmark$	P66-
		Promote environmental management through communications with stakeholders. Promote environmental communication at all levels to improve environmental management.	Improved communication of environmental information	Both internal and external information dissemination improved	Improved communication of environmental information	Improved communication of environmental information	$\checkmark$	P69
	Promoting environmental contributions to society	Increase environmental awareness among all staff through community-based environmental actions. • Launch Act-Local-System by end of FY 2010 to globally share information on social contribution activities around the world. • Sustain environmental social contributions activities around the world and promote activities that will contribute more to local communities through utilizing Act-Local-System.	<ul> <li>Construction and management of a domestic network,</li> <li>Construction and management of an international network</li> <li>Japan: once a year internationally: once every three years</li> </ul>	•Network implementatio •Japan: Implemented at all business sites Internationally: implemented at 54% of business sites	Management of the domestic network, Management of the international network     Japan: once a year internationally: once every three years	<ul> <li>Management of the domestic network, Management of the international network</li> <li>Japan: once a year Internationally: once every three years</li> </ul>	$\checkmark$	P65
Preserving biodiversity	Promoting efforts to preserve	Reduce impact of company's operations on biodiversity. • Develop numerical indicators to measure impact of operations on biodiversity and build system to expand contribution of ICT to reducing that impact. • Promote procurement from business partners that work to preserve biodiversity.	*Construction of the Fujitsu Group BD integration index to evaluate impact on biodiversity *60% materials suppliers' procurement rate ("no. of companies" rate)	Completion of numerical indicator development • 60.9%	<ul> <li>1.5% reduction in level of impact (in main business areas) compared to FY 2009 as evaluated by the BD integration index</li> <li>80%</li> </ul>	<ul> <li>3% reduction in level of impact (in main business areas) compared to FY 2009 as evaluated by the BD integration index</li> <li>100%</li> </ul>	$\checkmark$	P63-
	biodiversity	Contribute to community-building that conserves biodiversity. - Build case studies that contribute to biodiversity through ICT in all major offices by end of FY 2012. - Conduct biodiversity preservation/education programs in all offices by end of FY 2012.	<ul> <li>Implementation of survey to construct a model to contribute to biodiversity</li> <li>Japan: once a year Internationally: once every three years</li> </ul>	<ul> <li>Survey implementation</li> <li>Japan: Implemented at all business sites Internationally: implemented at 30% of business sites</li> </ul>	Pilot project based on survey results Japan: once a year Internationally: once every three years	Development at main business sites     Japan: once a year Internationally: once every three years	$\checkmark$	P63-

\* Target values were increased.

## **Environmental Accounting**

To promote environmental management, we introduced environmental accounting in FY 1998, and by evaluating our environmental protection activities, we have clarified the issues and promoted sharing of the results.

## Basic Environmental Accounting Elements

While conforming to the Ministry of the Environment's Environmental Accounting Guidelines 2005, the Fujitsu Group's environmental accounting adds estimated benefits based on Fujitsu's own approach to environmental accounting.

This accounting covers Fujitsu itself plus 30 affiliated companies, mainly in the manufacturing system in Japan and overseas. Note, however, that other affiliated companies concerned with environmental solutions, which have been added to the range covered by "R&D costs and benefits" since FY 2010, are also included in this accounting.

There were two additional changes to accounting coverage for FY 2010: after the transfer of Fujitsu Media Devices Limited it was excluded from the totals, and Fujitsu Technology Solutions (Holding) B.V. was added.

## Costs and Economic Benefits in FY 2010

The results of this accounting for FY 2010 showed costs of 33.11 billion yen (a 10.1% increase from the previous year) and the economic benefits were 59.71 billion yen (a 10.9% increase from the previous year). Thus both costs and benefits grew by over 10%. Also, our capital investment was 4.57 billion yen (a 90.4% increase from the previous year).

Note that the influence of the changes in the coverage of accounting was that when the values for the two companies were subtracted, costs were reduced by about 200 million yen and benefits were reduced by about 800 million yen.

#### Trends in Costs and Economic Benefits



## Reasons for Changes in Costs and Economic Benefits

Costs increased by about 3.1 billion yen compared to the previous year. This is because in contrast with management activities, whose costs fell by about 600 million yen in association with reductions in environmental advertising costs, the cost of R&D increased significantly, by about 4.1 billion yen. R&D costs grew substantially as a result of promoting R&D on products and solutions that contribute to environmental protection in line with "Benefiting Customers and Society" which is a major goal of the Fujitsu Group's medium-term environmental vision Green Policy 2020.

Economic benefits increased by about 5.9 billion yen compared to the previous year. Although the benefits from our management activities fell by about 600 million yen, benefits from pollution prevention increased by about 1.5 billion yen, benefits from resource circulation increased by about 1.4 billion yen, and benefits from R&D increased by 3.4 billion yen. The benefits from management activities fell because environmental advertising, which is a factor in reducing costs, was cut back, resulting in fewer estimated benefits from that advertising. The increase in the benefit from pollution prevention was due to aggressive promotion of investments aimed at preventing both air pollution and water pollution in our affiliated companies. Specifically, this was due to an increase in the risk avoidance benefit, which is an estimated benefit from prevention efforts. Our benefit from resource circulation increased due to the influence of changes in the sale price of valuable items no longer needed at affiliated companies, which in recent years have been influenced by these changes. With regards to the benefit from R&D, to contribute to reducing the environmental impacts of our customers and society, we have strengthened our Green ICT lineup, so providing these products to our customers led to an increase in economic benefits as calculated by our proprietary method of calculating these estimated benefits.

Thus R&D costs and benefits both rose significantly in FY 2010. In the future, we will continue to refine environmental management by evaluating our environmental protection activities using environmental accounting.

WEB Environmental Accounting

http://www.fujitsu.com/global/about/environment/management/ accounting/

	Item	Main areas covered	Capital investment (billion yen)	Costs (billion yen)	Economic benefits (billion yen)	Related pages
	Pollution prevention costs/ benefits	Preventing air pollution/water pollution, etc.	1.09(+0.17)	4.82(+0.01)	7.18(+1.49)	P57~58
Business area costs/	Global environmental conservation costs/benefits	Preventing global warming, saving energy, etc.	1.70(+0.58)	2.84(-0.07)	1.38(+0.09)	P55~56.60.62
Denents	Resource circulation costs/benefits	Disposal of waste, efficient utilization of resources, etc.	0.02(+0.01)	2.87(-0.30)	10.64(+1.42)	P57~58、60
Upstream/downstream costs/benefits		Collection, recycling, reuse, and proper disposal of products, etc.	0.00(±0.00)	0.82(±0.00)	0.44(+0.05)	P49~50、61
Administration costs/benefits		Provision and operation of environmental management systems, environmental education of employees, etc.	0.82(+0.74)	3.51(-0.60)	0.93(-0.61)	P66~69
R&D costs/benefits		Research and development on products and solutions that contribute to environmental protection, etc.	0.85(+0.58)	17.15(+4.08)	39.14(+3.42)	P43~48、 51~54
Social activity costs		Donations to, and support for, environmental groups, etc.	0.00(±0.00)	0.06(+0.01)	_	P63~65
Environmental remediation costs/benefits		efits Restoration and other measures related to soil and groundwater contamination, etc.		1.03(-0.08)	0.00(±0.00)	P59
Total			4.57(+2.17)	33.11(+3.05)	59.71(+5.85)	-

Numbers in parentheses indicate increases or decreases in comparison with the previous year.
 Due to rounding, figures in columns may not add up to the totals shown.

Items shown as "0.0" include items for which the value was smaller than the display units used. See pages 41 and 42 for details on the environmental performance index (environmental conservation benefits).

### Looking Back on FY 2010 Environmental Activities

All first year target were met for the Fujitsu Group Environmental Protection Program (Stage VI). Fujitsu is further enhancing its global environmental activities to be a leader in environmental management.

In FY 2010, we started the Fujitsu Group Environmental Protection Program (Stage VI), which consists of 18 items, and achieved all of the targets for the first year. The main results of these activities included expanding provision of Green ICT products, reducing greenhouse gas emissions, and starting the use of quantitative indicators to measure the influence and contribution of business activities on the new priority field of conserving biodiversity.

We also made progress in expanding our environmental management globally. For example, to strengthen development of environmentally friendly products, we drew up common criteria for environmentally friendly design based on global standards with Fujitsu Technology Solutions in Germany, which develops servers and PCs. Also, to advance standardization related to procedures to evaluate reductions in environmental burdens, we participated proactively in international standardization institutions such as the ICT for Energy Efficiency Forum and the International Telecommunication Union. As a result of these efforts, we received a wide range of honors and praise from our stakeholders during FY 2010.

We aim to be a future leading corporation in environmental management and will strengthen our global environmental activities still further.

First, we will become more rigorous about compliance with the law and are working to strengthen our global governance. We will also unfailingly achieve the targets of the Fujitsu Group Environmental Protection Program (Stage VI), which are solemn undertakings to customers and to society. Furthermore, while developing environmental technologies that create new values for our customers and providing environmental solutions, we will deploy globally the leading-edge environmental technologies we have developed at data centers and other sites in Japan.



Atsuhisa Takahashi Corporate Executive Advisor (Environmental Strategy)

Minoru Takeno President, Corporate Environmental Strategy Unit

Our awareness of energy and our values have been changed by the Great East Japan Earthquake, which occurred in March 2011, and we realize that energy must be used throughout society even more efficiently than ever before. We in the Fujitsu Group have renewed our awareness of energy as both a critical management resource and a source of risk. We will work to save energy and reduce electricity usage by taking full advantage of the environmental management foundation we have developed so far and will continue to improve our energy efficiency in the future. Furthermore, we will work aggressively to develop products and services that save energy and result in even lower CO<sub>2</sub> emissions based on our current successes. Thus, we will contribute to our customers' business reforms and the building of a sustainable society.

## **Stakeholder's Voice**

### Expert Opinion

I recognize that the Fujitsu Group's environmental efforts are solid ones that Fujitsu has sustained steadily and reliably over many years while showing both visions and roadmaps. As a corporation positioned to reduce society's environmental burden by taking advantage of ICT, we have high hopes for Fujitsu's environmental activities through its main businesses. I give high marks for Fujitsu's carefully considered allocation of resources, importantly not just in the short term, but over the medium and long term too, including its investment in R&D for these purposes.

When it comes to ICT technologies, Fujitsu does give the impression of a "hard" approach. However, one of their strengths is that they are also capable of a "soft" approach, that is, a more humanistic approach that can speak to people's feelings or appeal to their emotions, such as a map that shows where and when the dandelions are starting to bloom across Japan.

I also came to understand that in the solutions area, Fujitsu handles matters that are less immediately obvious than hardware. This area is not about just improving or replacing hardware but involves a wide range of trial-and-error and practical experience to create proposals at a new level intimately related to the general way we work and live.

I believe that Fujitsu, in its efforts to become a top corporation in environmental management, is making solid progress in most areas where society commonly has expectations of corporations and I firmly believe that Fujitsu will move forward to even more "aggressive" environmental activities.

While Fujitsu has put efforts into saving energy and reducing CO<sub>2</sub> emissions, I hope that they will, in the future, contribute to the creation of a society in which both the current and future generations can live happily without excessively burdening the Earth's environment based on a broader understanding of sustainability rather than a mere preoccupation with the environment.

Furthermore, if that happens, the important issue to address in broadening

and deepening activities will be more "How can we move forward?" rather than "What should we do?" I hope that Fujitsu will provide its employees with increasing opportunities to acquire the habit of dialogue and collaboration with a wide variety of stakeholders to whom they have not hitherto been so strongly linked, including NGOs, local communities, students, and children.



Junko Edahiro Representative of e's Inc., Representative of the Japan for Sustainability NGO

## Operating Activities and Environmental Burden (Material Balance)

We promote environmentally friendly business activities through overall quantitative assessment of our environmental burden from the life cycle and supply chain standpoints.

#### Material Balance



#### **Calculation Methods**

		INPUT
Development /	Raw Materials	Material inputs to our major products* shipped in FY 2010 (raw materials per unit for each product times the number of units shipped in FY 2010)
Planning & Design	Chemical Substances	Volume of PRTR Law target chemicals handled by plants/sites in FY 2010
Procurement	Water	Volume used by plants/sites in FY 2010
Manufacturing / Development	Energy	Electricity, oil and gas consumed by plants/sites in FY 2010
Distribution / Sales	Energy	Energy consumption in transportation in FY 2010
Usage	Energy	Electricity consumption by major products* shipped in FY 2010 (Assumed hours of use per product x age-based electricity consumption x the number of units shipped in FY 2010)
Collection/Reuse/Recycling		The weight ratio of recycled parts and resources with respect to the processing volume of post-use products is calculated according to the method of the Japan Electronics and Information Technology Industries Association. It excludes collected waste other than post-use electronic products.

\* Major products: Personal computers, mobile phones, servers, workstations, storage systems, printers, scanners, financial terminals, retail terminals, routers, LAN access equipment, access network products, mobile phone base stations, and electronic devices.



#### **Calculation Methods**

		OUTPUT
	Raw Materials	Material inputs to our major products* shipped in FY 2010 (per-unit volume of CO <sub>2</sub> emitted from mining the resource until it becomes a raw material for each product times the number of units shipped in FY 2010) In FY 2010, we improved our grasp of the number of electronic devices used in our products with very high accuracy.
Development /	Chemical Substances	Measuring the concentrations of PRTR Law target chemicals discharged through plants' drains and exhaust ports in FY 2010 and multiplying the total volume discharged (nickel compounds, manganese compounds, etc.) or total volume emitted (xylene, toluene, etc.), or calculating based on the chemical substance balance (xylene and toluene).
Planning & Design Procurement Manufacturing / Development	Atmospheric Release	C0:: C0: discharge volume associated with energy consumption by plants/sites in FY 2010 (Energy consumption times C0: conversion factor) NOx, SOx: Calculated from concentrations in gases discharged from vents (boilers, etc.) by plants/offices in FY 2010 Greenhouse gases other than C0:: Discharge volume of process gases used in four semiconductor plants in FY 2010. (Calculated by formulas such as <volume gas="" of="" used=""> x <ratio consumed="" in="" reactions=""> x <detoxification ratio="">) VOC: Emission amounts of the substances subject to emissions restrictions stipulated by the four electric and electronics associations for factories and business sites for FY 2010</detoxification></ratio></volume>
	Water Discharge	Wastewater volume discharged by plants/sites into sewerage or rivers in FY 2010 BOD: A measure of the emission volume of organic pollution of water discharged by businesses employing the volume of oxygen consumed when organic matter in water is removed by microbial activity. COD: A measure of the emission volume of organic pollution of water discharged by businesses employing the volume of oxygen consumed when organic matter in water is removed chemically by oxidation.
	Waste	Quantity of Waste Generated: amount of waste generated by plants/sites in FY 2010 Volume of Waste Disposal: The volume of landfill disposal and simple incineration by plants/sites in FY 2010 (including waste which is not a zero emission target)
Distribution / Sales	Atmospheric Release	The total volume of CO <sub>2</sub> emissions in FY 2010, including both fuel consumption by our shipping business in Japan when measurable, and shipping distance x freight weight x coefficient when the freight of companies other than Fujitsu is included, as in mixed load transportation
Usage	Atmospheric Release	The volume of $CO_2$ emissions during use of major products* shipped in FY 2010 (Amount of energy consumed x CO <sub>2</sub> conversion coefficient. The amount of energy consumed is calculated by multiplying the quantity of electricity used during the estimated time of use of each product unit by the number of units shipped in FY 2010)

\* Major products: Personal computers, mobile phones, servers, workstations, storage systems, printers, scanners, financial terminals, retail terminals, routers, LAN access equipment, access network products, mobile phone base stations, and electronic devices.

## Leading-Edge Green ICT Research and Development

We are concerned with reducing environmental burdens at the policy and proposal stages in our leading-edge research and development and we are continuously creating technologies that contribute to saving electricity and using next-generation sources of energy.

### Basic Approach

#### Promote the Development of Products and Services that are Optimized to Benefit Lower Environmental Burdens

To achieve the goal of reducing CO<sub>2</sub> emissions by about 30 million tons a year in Japan by 2020, as proposed in Green Policy 2020, our medium-term environmental vision, we need to develop revolutionary leading-edge technologies that have even greater environmental burden-lowering effects than at present.

Fujitsu Laboratories Ltd., which handles the Fujitsu Group's leading-edge green ICT R&D, has introduced the slogan "Strengthen leading-edge green ICT R&D and contribute even more to Fujitsu Group business" and is pushing forward with R&D on technologies that can benefit lower environmental burdens. Based on the concept of Green R&D, we are establishing and implementing policies from an environmental standpoint in all development work, from materials and devices through facilities, to systems and solutions.

### Efforts in FY 2010

### Quantitatively Evaluating CO<sub>2</sub> Emissions Reduction Benefits from the R&D Stage

To accelerate our environmentally oriented R&D, in April 2010 we started efforts to evaluate quantitatively the benefits in reduced CO<sub>2</sub> emissions (i.e., the environmental contribution) to be expected from the products and services that would include leading-edge technology while we were still in the R&D phase of developing that technology. These efforts are implemented across all units in the laboratories, and since researchers can evaluate the technologies they are responsible for (see figure), we can clarify the main advantages of the technologies from an environmental standpoint. Furthermore, by adding "the environment" to the axes of performance/functionality/quality and cost, R&D on leadingedge technologies that is balanced across all three of these axes becomes possible.

The Fujitsu Group Environmental Protection Program (Stage VI) sets up "Strengthening leading-edge green ICT R&D" as a priority and divides this into two areas with specific targets: the area of



- Low-carbon technologies for ubiquitous equipment
- Energy-saving technologies for data centers and networks
- Environmental solution technologies
- Exhibiting synergy between total technology development and open innovation
- Consolidation of elemental technologies from materials and devices to solutions
- Global technology coordination

next-generation data centers and networks and the area of solutions.

The target for the next-generation data center and network area is developing technologies that can double the overall efficiency of ICT equipment by the end of FY 2012. The target for the solutions area, also by the end of FY 2012, is to increase by at least 35% the development ratio for technologies that improve the effective reduction of environmental burdens.

In FY 2010, we did not just clear the target of developing technologies that can increase ICT equipment efficiency by of 1.2 times, we improved it to 1.3 times. Then again, in the solutions area, we were able to achieve a development ratio of 58% for technologies that improve the effective reduction of environmental burdens rather than the minimum 25% of the fiscal year target. Based on these results, we revised the solutions area development ratio target to at least 70% by the end of FY 2012.

Fujitsu Laboratories Inc. will, while further increasing the environmental contribution of our leading-edge technologies, aim to expand the applications areas to complete systems including those in which the individual technologies work together.

Press Release: WEB

http://www.fujitsu.com/global/news/pr/archives/ month/2010/20100329-02.html

#### Organization of Fujitsu Laboratories Ltd. (As of March 2011)



### R&D Example Optical Switch that Cuts Power Consumption by Half

In November 2010, Fujitsu succeeded in developing technology that reduces the power consumed by optical switches to one-half of previous levels.

An optical switch is a unit that can switch the optical signal path without conversion in a communication network. Previously, progress had been made in developing next-generation networks with low power consumption using optical switches, since the power consumption of converting from optical to electrical signals is high.

In the structure used in this switch, instead of the earlier finepatterned silicon, Fujitsu used, for the first time, fine-patterned silicongermanium and achieved a reduction in power consumption to half that of earlier switches.

With the volume of data transmitted over networks increasing every year, power consumption in network equipment is increasing in step and there is concern that this could become a serious energy issue in the future. Next-generation large-capacity network communications applications such as cloud computing and ultrahigh-definition video distribution can be supported by using this technology to reduce power

consumption. Note that since this optical switch uses commonly available silicon fabrication technology, its price can be reduced through mass production.

Fujitsu will continue to strive to achieve large-scale optical switches that can implement next-generation networks.



http://www.fujitsu.com/global/news/pr/archives/month/2010/20101109-02.html

**Optical Switch Mechanism** 



### R&D Example 2 Hybrid Energy Harvesting Device for Generating Electricity from Heat and Light Developed

In December 2010, Fujitsu developed a power generating device with a new hybrid structure that can extract power from both heat and light.

Previously, to use both heat and light as energy sources for generating electricity it was necessary to provide two separate devices: a thermoelectric element for generating electricity from heat and a photovoltaic cell for generating electricity from light. There was also the problem that combining multiple elements increased device costs.

For this newly developed hybrid energy harvesting device, Fujitsu developed a new organic material that can generate electricity from both heat and light and created a device that can generate electricity from both thermal and optical environments. Previously, there had been cases where in one of these environments it would have been impossible to harvest adequate energy. This new hybrid device, however, makes it possible to provide a larger amount of energy by selecting the more favorable environment and switching to that mode of generation. Furthermore, since the material used is relatively inexpensive, manufacturing costs can be held to a minimum. Since neither power from a generating station nor batteries are used, it is not necessary to use electrical wiring or change batteries.

We hope that this technology can be used in the energy harvesting area, in which energy is collected from the surrounding environment

in the form of light, vibration, heat, or radio waves and converted to electricity. Although energy harvesting is seen as a next-generation energy source, since a given mode of energy, say light or vibration, is not always present, there is demand for the ability to switch appropriately to an energy source that does exist in the surrounding area and generate electricity efficiently.

We are aiming for practical application of this device around 2015 as one that can respond to next-generation needs and are working to increase performance and develop mass-production technologies.



#### Hybrid Generating Device



### R&D Example 3 Developing a Wide-Area Traffic Simulator that Can Provide a Virtual Driving Experience

Smooth traffic flow is a critical issue for preventing traffic jams and accidents and reducing the associated CO<sub>2</sub> emissions. Given this background, to achieve future traffic patterns in which traffic jams can be avoided, in December 2010 we developed a wide-area traffic simulator that also allows drivers to experience the simulation.

At the same time as reproducing, in real time, the behavior of tens of thousands of vehicles on roads covering a wide area, this simulator also generates visual images for drivers and allows one of those vehicles to be driven virtually.

As an example of traffic policies that make use of this technology, we simulated a service that notifies drivers of the recommended speed that will allow them to pass through traffic signals without accelerating or decelerating. As a result of evaluation, we learned that the ease of driving and the CO<sub>2</sub> reduction effect change with the way drivers are notified and with the timing of such notifications. In addition to allowing the a priori evaluation of a variety of measures for smooth traffic flow, it also allows benefits and problems to be evaluated from the actual viewpoint of drivers. This will make it possible to implement appropriate measures that match the road conditions.

In addition to moving forward with practical implementation of this service, we will work to expand the simulation to an even wider area, expand the service, and aim at applying this system to verification of traffic policies over a wide area.



http://www.fujitsu.com/global/news/pr/archives/ month/2010/20101206-01.html



Driving experience simulator

## **Eco-Friendly Products**

We are accelerating the development of Green Products and Super Green Products and are working to reduce environmental burdens throughout the product life cycle.

## Green and Super Green Product Development

The Fujitsu Group has adopted a unified Group-wide approach to eco-design for newly designed products and works to improve environmental performance throughout the product life cycle. We have been implementing our own environmental assessments for products since 1993, and we strive to develop eco-friendly products that reflect environmental considerations in such areas as energy saving, 3R design\*, non-use of hazardous chemical substances, packaging materials, and information disclosure.

Moreover, in 1998, to further strengthen development of eco-friendly products, we established Green Product Evaluation Standards and positioned the products that satisfy them as Green Products. Then, in FY 2004, we combined what had previously been two separate sets of regulations — for product environmental assessment and for Green Product evaluation — into a single set of standards with even higher levels of consideration for the environment. We called these Product Environmental Green Assessment Regulations, and they have helped to both strengthen our Green Product development efforts and make them more efficient.

Furthermore, since FY 2004, we have been working on what we call "Super Green Product" development for newly developed products. Super Green Products are those that meet the required conditions for Green Products and are also top class in terms of low energy consumption and/or 3R design technology, non-use of hazardous substances, packaging materials and use of ecofriendly materials and technologies. Super Green Products are products or systems recognized as having superior environmental characteristics to others we supply or are available on the market.

Starting in FY 2010, the definition of Super Green Product has been revised to be the more strict "being in the top level in both energy saving and some other parameter (such as resource saving)."

In FY 2010, another 19 products were recognized as being Super Green Products.

\* **3R design**: Design based on the principles of reduce, reuse and recycle

Mechanism for Green and Super Green Product Evaluation

#### STEP 1 STEP 2 STEP 3 Carry out Product Carry out Green Carry out evaluation based Environmental Product Evaluation on Super Green Assessment Product definition Environmental Must score 90+ features satisfy the total evaluation Super Green points Product definition Super Green Product (product with superior environmental consideration) All evaluation criteria satisfied Green Product (product with enhanced environmental consideration)

#### The Green Policy Innovation Logo

The Fujitsu Group green IT project "Green Policy Innovation" logo is affixed to Green Products and Super Green Products.



## Improving the Eco-Efficiency Factor

We introduced the eco-efficiency factor\*, which evaluates both the environmental burden reductions and the product value increases at the same time for newly developed Green Products in the Fujitsu Group Environmental Protection Program (Stage V) in FY 2007. In the Fujitsu Group Environmental Protection Program (Stage VI), we changed the base fiscal year for products from FY 2005 to FY 2008 and are continuing these activities.

In FY 2010, which is the first year of the Fujitsu Group Environmental Protection Program (Stage VI), we achieved a factor of 3.2 in comparison with our target of 1.5, significantly exceeding the target. The main factors were improvements in data-processing power and energy efficiency in network products and PC servers. Since we have already achieved the FY 2012 target of 2.5, we revised that target upwards for even further improvement.

\* Eco-efficiency factor: A method for comparing old and new products that quantitatively grasps improvements in both product environmental burden and value (functionality and performance). This is an environmental index that promotes the creation of products that can provide even higher values with even lower environmental burden.



### Application to Global Environmentally Friendly Standard Products

In May 2011, we established an internal standard, the Eco Design Standard, that conforms to the IEC 62075<sup>\*1</sup> international standard and strives to meet the environmental requirements of the market<sup>\*2</sup>.

Fujitsu PCs and servers are designed in both Japan and Europe and are provided globally. We are moving forward globally with product environmental friendliness with this round of standards unification.

\*1 IEC 62075 international standard: A product life cycle environmental design standard for video, audio, information, and communications equipment. This standard was published in January 2008 and established as JIS C 9914 in July 2010 in Japan.

\*2 Covered equipment: PCs, servers, and storage systems.

### Super Green Product Development Examples

SPARC Enterprise M3000 **UNIX Server** 





## 🗱 Energy savings Operating power per unit performance reduced by half for faster recognition.

Chemicals

Weight reduced by 30% or more and volume by 10% or more compared to earlier products.

#### PRIMEQUEST 1400S2 Mission-Critical IA Server



#### 💮 Energy savings

Conforms to the standards of the Japanese 2011 Energy Conservation Law and reduces operating power consumption by 70% compared to earlier products. Uses the 80Plus Gold power supply.

3R design technology Weight reduced by 82% and volume reduced by 91%.

#### ScanSnap S1100 Color Image Scanner



### Dergy savings

Reduces sleep mode power consumption by 77.6% compared to the international Energy Star guidelines, reduces operating power consumption by 44.4% compared to earlier products, and reduces standby mode power consumption by 64.2% (compared to DC power operation).

## 3R design technology

Achieves the world's lowest class in chassis volume, a weight reduction of 78.0% compared to earlier products, and volume and parts counts reductions of 79.6% and 24.6%, respectively

## 🔏 Chemicals

Using LED light sources (eliminating mercury additives)

#### MBH7WLZ23 Wireless LAN Module



Energy savings Standby mode power reduced by 41% compared to competing products

(3R) 3R design technology Achieves the top level of miniaturization in its field.

> Chemicals Halogen-free materials used for printed circuit boards

#### **IPCOM EX2500 Series** Network Server



### 🗱 Energy savings

Reduces power consumption by 78% per unit performance, achieves an eco-efficiency factor of 7.49 and an environmental burden of 0.37.

### **GR** 3R design technology

Weight reduced by 41% and volume reduced by 53%.

SR-S316TL1 Secure Switch



### Brergy savings

Achieves an efficiency that is 300% of the energy consumption efficiency target standard and reduces power consumption by 87% compared to earlier . products.

3R design technology Weight reduced by 80% and volume by 82.5% compared to earlier products.

👗 Chemicals Lead-free solder is used in all printed circuit boards.

#### FTR-K3L Power Relay



Energy savings Achieves a standby mode power consumption of 0 W in a self-maintaining relay.

## 👗 Chemicals

Lead-free solder used and contains no materials covered by REACH regulations.





## **Eco-Friendly Products**

## Carrying Out Life Cycle Assessment (LCA)

The Fujitsu Group has made it obligatory to perform LCAs for all its Green Products. Calculation standards have been formulated for each product family, and the Group efficiently evaluates the environmental burdens of its products using its own database\*.

Performing LCAs makes it possible to determine which parts of a product's life cycle account for the greatest proportion of the environmental burden, so that environmentally friendly products (see page 45) can be designed effectively. We also apply the expertise developed through our LCA activities to calculate the eco-efficiency factor, and are actively using this as a tool for communicating with our customers.

\* Our Own Database: This is our own unique database of unit values, created by Fujitsu Laboratories based on input-output tables.

### IPCOM EX2500 LCA Improvement Effects (CO<sub>2</sub> emission)

Materials Manufacturing Distribution Use Disposal/Recycling (%) 120 100 Power consumption improvements 80 led to a use stage improvement of 63%. 60 Improvement effect: 63% 40 overall reduction. 20 Weight reduction led to a materials stage improvement of 9% 0 -20 **IPCOM \$2400** IPCOM FX2500 (Earlier product) (Evaluation product)

## Environmental Labeling and Information Disclosure

We actively disclose environmental information on our products, both via the Internet and in the form of environmental labels.

Since the end of FY 2006, we have registered notebook personal computers under the EPEAT<sup>\*1</sup> system, which encourages the purchase of green PCs and is used chiefly by US government bodies. Product environmental information for computers, magnetic disk devices, displays, printers, scanners, and mobile phones covered by green purchasing laws<sup>\*2</sup> is published on the Ministry of the Environment's website<sup>\*3</sup>, while the equivalent information for computers, displays, printers and scanners conforming to the ENERGY STAR Program in Japan is published on the website of the Energy Conservation Center, Japan<sup>\*4</sup>.

- \*1 EPEAT website: http://www.epeat.net/
- \*2 Green purchasing laws: Laws related to promoting the purchase of eco-friendly goods and products by the country or other parties.
- \*3 Ministry of the Environment's website:
- http://www.env.go.jp/en/laws/policy/green/index.html \*4 Energy Conservation Center, Japan website:
- http://eccj06.eccj.or.jp/cgi-bin/enestar/pub\_productsE.php

### Environmental Efforts Example Efforts to Making Networks Greener

It is estimated that, due to increases in network traffic, power consumption in network equipment in Japan will be 13 times larger in 2025 than it was in 2006. Thus rapid increase in power consumption in this equipment is an issue of concern.

To reduce our customers' environmental burden through saving energy in network products, we have been working to develop energysaving technologies from five standpoints: (1) devices, (2) systems, (3) whole networks, (4) network construction and operation, and (5) solutions that use networks. We develop, for example, access transport systems and optical expansion wireless units as products that incorporate a wide range of energy-saving technologies. At the same time as saving our customers significant amounts in operating and maintenance costs, these products contribute to making the whole network "greener."

#### Access Transport System Flashwave 2440 Series



- \* Energy savings: Complies with the FY 2011 standards in the Japanese Energy Conservation Law. Power consumption is reduced by 64% compared to earlier products.
- \* **3R design technology**: Weight was reduced by 62% and volume by 66% compared to earlier products.

#### Environmental Efforts Example 2 Developing and Providing Software that Saves Energy During ICT Operation

Energy-saving effects during operation can be obtained in ICT equipment such as servers, storage units, and networks by combining effectively with appropriate software.

For example, we supply a variety of software that reduces power consumption, including software to manage the state of energy-saving settings on PCs for the office<sup>\*1</sup>, software to automate power on/off, business operation, backup, and power supply control in servers for the data center<sup>\*2</sup>, and software to monitor whether the power is turned off in servers not in the operating state and to keep the number of powered on servers to an absolute minimum<sup>\*3</sup>. In, for example, software to build private cloud environments<sup>\*4</sup>, we contribute to energy saving by unified management of integration,

operation, and monitoring networks, servers, storage and other systems and increasing the efficiency of resource utilization.

We are also working on developing software that achieves further environmental burden reductions by using the abovementioned software to achieve energy savings.



Cloud infrastructure management software monitoring screen for server temperature and power monitoring

- \*1 Using Systemwalker Desktop Patrol V14g
- \*2 Using Systemwalker Runbook Automation
- \*3 Using Systemwalker Centric Manager
- \*4 For example, cloud infrastructure management software, ServerView Resource Orchestrator, and ETERNUS SF.

Conserving biodiversity

## **Reducing Chemical Substances in Products**

We cooperate with our business partners in striving for strict management of chemical substances whose use is restricted by laws and regulations in Japan and overseas, as well as of other potentially harmful substances.

## Management of Restricted Chemical Substances in Products

The Fujitsu Group designates substances that are harmful to people and the environment and whose use is either prohibited or regulated by law as "Fujitsu Group Specified Banned Substances." We provide products that do not contain such substances by strictly prohibiting their use in our products and by working to eliminate them through our green procurement programs.

We also recognize that minimizing the risks posed by certain chemicals is of the highest priority in ensuring our customers' safety. For this purpose, we designate substances suspected of being harmful (Substances of Concern) as "Fujitsu Group Specified Controlled Substances," or "Fujitsu Group Specified Reportable Substances," and, based on principle of prevention, we manage the amounts included so that we can transition to forbidding their use in stages as the danger of these specified substances becomes clear.

This effort is not limited to Japan but also applies to global regulations on chemical substances included in products.

## Management of Chemical Substances Restricted or Banned by Law

The Fujitsu Group defines legally regulated substances as "Fujitsu Group Specified Banned Substances," and provides products that do not contain them.

We have also established Fujitsu Group Green Procurement Direction (see page 61) and strengthen control of the chemicals in our products by requiring our suppliers to construct chemical management systems (CMSs).

In response to regulations such as the RoHS Directive\*, we have taken systematic action covering the entire supply chain by constructing a system headed by our product business division and including our quality assurance, purchasing, and environmental divisions, to manage chemical substances from design through to delivery.

\* RoHS Directive: Restriction of the use of certain hazardous substances in electrical and electric equipment

#### Framework for RoHS Compliance



Fujitsu Group companies are also constructing their own frameworks based on the above.

### Controlling Substances of Concern

The Fujitsu Group Specified Reportable Substances list includes substances that are REACH regulation\*1 candidate substances\*2, and we collect information on substance amounts from suppliers and then manage these quantities on a per-product basis. Moreover, the Specified Controlled Substances list also includes data from suppliers on amounts for substances that may not be restricted by every country's regulations, but which we consider to be of concern.

As far as PVC is concerned, we not only control the amounts included in our products but also require in our Green Procurement Direction that it be used as little as possible, and restrict its use in everything except sheathing for cables and insulating materials for electronic components.

- \*1 REACH regulation: Regulation concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals
- \*2 REACH candidate substances: Selected chemical substances with properties (carcinogenicity, mutagenicity, reproductive toxicity, etc.) regulated by REACH. If these substances are present in products, data on the amounts must be displayed.

## Contributing to Creating Mechanisms for **Chemical Substance Management**

In the Fujitsu Group, we see efforts towards chemical substance management as an issue for the whole supply chain and so we participate in activities such as the Joint Article Management Promotionconsortium (JAMP) and the Japan Green Procurement Survey Standardization Initiative (JGPSSI) industry groups and are studying how to configure a means of transmitting information efficiently.

Among these industry groups, we have been an active member of JAMP since its foundation. We were involved from the planning stages with the input format and entry support tools for the AIS (article information sheet), which is an included chemical substance information transmission sheet, and also participated in creating guidelines for appropriate management of included chemical substances and in practical education for business partners to promote the use of AIS throughout the industry. Furthermore, we are in charge of activities promoting the use of the JAMP information distribution infrastructure (JAMP-IT), which supports information exchange requests from multiple companies to create an environment for the smooth transmission of information.

## Using ICT to Control the Chemicals in Our Products

From requesting surveys by outside organizations through to gathering information by our own efforts, the Fujitsu Group maintains an integrated system for managing the information on the chemicals contained in the components and materials it purchases from its suppliers throughout its supply chain. Further, we use the large volumes of chemical-related data we collect to calculate amounts on a per-product basis, pinpointing the amounts of restricted chemicals at the product level and managing them accordingly.

The Group also offers an environmental business solution called PLEMIA/ECODUCE, a software package that utilizes this inhouse expertise.

Management of the Restricted chemical substances in products: WEB http://www.fujitsu.com/global/about/environment/products/chemical/ The PLEMIA/ECODUCE website (in Japanese) http://jp.fujitsu.com/solutions/plm/pdm/plemia/option-04.html

## **Promoting Product Recycling**

We are advancing collection and recycling of end-of-life ICT products from a global perspective to help create a recycling-minded society.

## Basic Approach

#### Recycling Activities that Conform to the Concept of Producer Responsibility

In accordance with the concept of Extended Producer Responsibility (EPR\*), under which the producer's responsibility for its products is not limited to the product design and manufacturing stages but extends to the disposal and recycling stages as well, the Fujitsu Group carries out recycling programs that comply with the waste disposal and recycling laws and regulations of the various countries in which it operates. We also try to do as much collection, reuse and recycling as we can even in countries where recycling is not obligatory, in line with the concept of Individual Producer Responsibility (IPR), which sees each producer as responsible for its own products.

IPR is a major challenge for the Fujitsu Group in expanding its business globally, but we believe that responding to this challenge and that of EPR in collaboration with industry associations and governments will enable us to help create a recycling-minded society in which the requirements and demands of all stakeholders are met.

\* EPR: Extended Producer Responsibility. The view that the manufacturer's responsibility lies not only in product design and manufacture but also extends to the disposal and recycling phases. This concept was made explicit in Japan's Fundamental Law for Establishing a Sound Material-Cycle Society enacted in June 2000.

### Promotion on a Global Scale

The Fujitsu Group recycles products in EMEA and the Americas (the United States, Canada, and Brazil) and Asia (Singapore, the Philippines, Australia, Hong Kong, Taiwan, and South Korea).

#### **Overseas Activities Example**

EMEA: Fujitsu Technology Solutions (Holding) B.V. (FTS) Through its partner companies, Fujitsu Technology Solutions (Holding) B.V. (FTS) recycles waste ICT products for corporate and individual customers in 27 countries in the EU, as well as in Norway and Switzerland. In addition, since 1988 at Paderborn, the Group's own recycling center in Germany, we have been contributing to the reuse of waste resources by disassembling products by hand so we can precisely classify and then appropriately recycle the materials.

In 2010 we processed 5,037 tons of waste ICT products and achieved a resource reuse rate of 96.3%.

To disseminate these activities widely, at CeBIT 2010, the world's largest ICT related trade show held in Germany, we both presented our recycling efforts and demonstrated PC



Visitor experiencing PC disassembly in the FTS environmental booth

disassembling at our booth and were honored by a visit from Germany's environment minister.

Moreover, since 2008 Fujitsu Technology Solution's South Africa office has been collaborating with local waste-management companies to collect and recycle from corporate and individual customers all products of any brand, including monitors, printers, mobile phones, desktop PCs, notebook PCs, calculators, TVs, and DVD equipment. This is the first time an ICT company has provided such a service in South Africa.



Large recycling bin installed at a public site in South Africa

Also at other overseas sites we have linked up with local recycling partner companies and promoted the recycling of ICT products

- Singapore: Fujitsu PC Asia Pacific Pte. Ltd. (FPCA) (Starting in 2007)
- •Brazil: Fujitsu do Brazil Ltda. (FBR) (Starting in 2010)
- Australia: Fujitsu Australia Ltd. (FAL) (Starting in 2006)
- •South Korea: Fujitsu Korea Ltd. (FKL) (Starting in 2003)

### Promotion in Japan

As an enterprise with official designation for wide-area industrial waste disposal in Japan, Fujitsu engages in various kinds of contracts for accepting industrial waste for appropriate processing. We have established Fujitsu recycling centers throughout Japan to create a nationwide recycling system. This system provides for rigorous traceability and security, and achieves a high resource reuse rate. By providing this safe and secure service, we are fully discharging our Extended Producer Responsibility (EPR).

#### Fujitsu Recycling Centers Throughout Japan



## Achievements in Collecting and Recycling End-of-Life ICT Products

Although the volume of materials collected is declining due to progress in miniaturization and reduced product weights, we processed 6,406 tons of recycled ICT products from corporate customers in FY 2010, and achieved a resource reuse rate of 90.6%. Also, we have now collected a total of 74,231 end-of-life PCs from individual customers.

#### **Promoting Recycling**

Experienced workers carefully disassemble collected products by hand and separate the materials into categories such as steel, copper, aluminum, precious metals, glass and 20 different types of plastic. They also strive to raise their manual disassembly standards through the use of animated disassembly manuals. Materials recognition equipment has been introduced for plastics that are difficult to discriminate, so as to allow the complete segregation of different types of plastic. In addition to minimizing the quantity of waste materials in this way, we are continually trying to turn them back into resources that can be reused to make products.

Also, to keep our customers informed of these initiatives, we distribute ballpoint pens and folders made from recycled plastic at exhibitions and other events, as well as demonstrating PCs being manually disassembled.



Plastic material identification equipment



Ballpoint pens and folders made from recycled plastic

#### **Providing Product Recycling Information**

In order to properly dispose of end-of-life ICT products, since FY 2004 Fujitsu has been operating a digital management system for its product disassembly manual.

Through this system, Fujitsu recycling centers can download from our in-Group website as animated disassembly manuals all the information they need to recycle products. In addition to providing a downloadable products disassembly manual, the system provides instructions on how to deal with items containing restricted chemical substances and plastic materials, and with products that contain customer data.





Electronic Disassembly Manual A Management System

Animated disassembly manuals

## Developing a Traceability System

We developed an integrated recycling information management system and since FY 2007 have adopted it at the Fujitsu recycling centers. This system prevents theft and illegal dumping by attaching barcodes to customers' ICT products and managing data on the history of the recycling process from acceptance at the recycling center through disassembly and destruction of the hard disks on a per-customer basis.

## Targets and Achievements in Stage VI of the Environmental Protection Program

The target was to sustain 90% resource reuse rate\* of business ICT equipment globally at Fujitsu recycling centers, and in FY 2010 the achievement was 93.3% (90.6% within Japan and 96.3% overseas).

\* Resource reuse rate: The ratio of the amount (by weight) of recycled parts and resources to the amount of end-of-life business ICT products processed.



#### Fujitsu Integrated Recycling Process

## Solutions that Benefit the Environment

We are working globally to provide solutions that reduce our customers' and society's environmental burdens through creating our own certification system for Environmentally Conscious Solutions.

## Basic Approach

#### The Vital Importance of Using ICT to Reduce CO<sub>2</sub>

To reduce the amount of greenhouse gas emissions worldwide, efforts will be needed to reduce power consumption and to develop the environmental technologies required and to radically reform the way people live and work. To achieve these innovations, ICT has an indispensible and ever increasing role to play in reducing environmental burdens. It will be critically important to take full advantage of such ICT in the future.

For example, CO<sub>2</sub> emissions can be reduced by Internet teleconferencing that reduces the transportation of people and things.

The Fujitsu Group sees ICT as the way to reduce environmental burdens (which we call "Green by ICT") and we are globally promoting the provision of leading-edge green ICT to reduce the burdens of society as a whole.

#### Action Policy

#### Concern for the Environment in Every Aspect of the **Solutions Business**

We believe that we must actively promote the reduction of environmental burdens by using ICT to achieve the CO<sub>2</sub> reduction targets in our Green Policy Innovation initiative.

Therefore, while we aim to increase still further the number of products and services that both solve business problems and reduce environmental burdens, as we were already doing, in FY 2010 we aimed to emphasize the quantitative reduction of burdens our proposals will achieve and give examples of their effectiveness when adopted. We also took the environment into consideration in all the business processes involved in providing solutions.

#### Efforts in FY 2010 Increasing the Certification of Environmentally **Conscious Solutions**

Ever since FY 2004, we have assessed the quantitative reduction in environmental burdens (in terms of reduced CO<sub>2</sub> emissions) achieved when our solutions are adopted, and we certify products and services that exceed the required standard as Environmentally Conscious Solutions. In FY 2010, we certified 33 new items, bringing the total to 230. While increasing the number of these certified products and services, we aim to indicate the CO<sub>2</sub> reduction ratio for all our solutions.

#### **Global Efforts**

To proactively offer solutions that reduce environmental burdens in Europe and the Asia/Pacific region, we started full-scale overseas operation of our certification system for Environmentally Conscious Solutions in FY 2010. This was when we shared the evaluation procedures used in Japan for Environmentally Conscious Solutions and examples of their application with the heads of our key overseas centers and established the certification system. We are aiming at 100% coverage of divisions and regions<sup>\*</sup>, which is a target of our Environmental Protection Program (Stage VI) by FY 2012.

\* 100% coverage of divisions and regions: Refers to implementing environmentally conscious solutions in five divisions (industry, transportation, business, home, and energy) and four regions (Japan, Europe, USA, and Asia/Pacific).

#### Making CO<sub>2</sub> Reductions by ICT Visible

In FY 2010 we introduced mechanisms for our sales and SE staff to quickly calculate the effect of environmental burden reduction by ICT for customers who adopt it and to present that effect clearly to the customer.

First, we created a proposal template that shows the standard CO<sub>2</sub> reduction amount for Fujitsu Group products and solutions and deployed this within the Company. Next, we developed an environmental contribution calculation web tool and started using it within Fujitsu in October 2010. This tool uses a procedure developed by Fujitsu Laboratories Ltd. for quantitatively assessing the effect of environmental burden reduction (in terms of reduced CO2 emissions) when Environmentally Conscious Solutions are certified. This tool makes it easy for sales staff to calculate the amount of CO2 reduced by ICT when customers adopt it.

Furthermore, to increase the use of these proposal templates and the environmental contribution calculation web tool by sales and SE staff, we held briefing sessions on effective ways to use them and gave in-house awards for proposals that incorporated CO<sub>2</sub> reduction amounts and reduction ratios. As a result, we were able to achieve CO<sub>2</sub> reductions by ICT adoption in many business cases over a wide range of business types, including manufacturing, distribution, banking, and health care. We are using these examples of CO2 reduction as reference material when customers are considering the reduction in environmental burden that they will achieve by adopting ICT.

In FY 2011, we named this environmental contribution calculation web tool EcoCALC. As we continue to improve its ease of use, we will expand its target usage from within the group to our business partners. Additionally, we will disseminate and share superlative examples of CO<sub>2</sub> reduction by adopting ICT both within and outside Fujitsu to expand the area in which we promote ICT to reduce environmental burdens.

#### EcoCALC, which calculates CO<sub>2</sub> emissions reduction effects



The EcoCALC screen

#### Adoption Example Shizuoka Telecasting Co., Ltd.

#### Updating the Platform for the TV station's Core System for Editing, Sales, and Broadcasting and Reducing Power Consumption by Half

Strengthening their ICT foundations became a critical issue for TV stations in handling new services such as terrestrial digital broadcasting and 1seg (One Seg) broadcasting, and in supporting the July 2011 transition to fully digital broadcasting, Shizuoka Telecasting, which broadcasts to Shizuoka Prefecture, upgraded their platform for editing, sales, and broadcasting in November 2010. This editing, sales, and broadcasting system is the core system that handles TV station business operations, from creating TV program schedules and time management for programs and commercials to issuing bills.

In updating their system, Shizuoka Telecasting adopted leadingedge platforms including a Fujitsu SPARC Enterprise UNIX server. At the same time as implementing an ICT foundation that provides the high quality and reliability required in the core system, we added functionality such as fault prediction and detection to allow business operations to continue even if a natural disaster or fault occurs. Also, Fujitsu's SupportDesk Standard maintenance and operations service makes 365-day/24-hour stable operation possible. While we optimized it with a view towards future upgrades of the whole system, we also reduced ICT operating costs. When we proposed this platform update, we made use of our environmental contribution calculation web tool. We showed numerically that this update would provide large benefits in terms of reducing both power consumption and CO<sub>2</sub> emissions and made proposals that combined cost reduction and environmental benefits.

We expect that this upgrade can reduce  $CO_2$  emissions by 51.6% compared with the previous system. This corresponds to an annual  $CO_2$  reduction equivalent to that of about 950 cedar trees.

## Voice

Sakio Sato Director for Information Technology, Shizuoka Telecasting

We are grateful to Fujitsu for their proposals that dealt with functional aspects and provided cost reductions.

Until now, we had not really considered power consumption, but Fujitsu rendered visible the



amount of CO<sub>2</sub> reductions and electricity savings, which were useful reference materials in deciding to adopt the system.

#### Adoption Example The Hokuriku Bank, Ltd.

#### Achieving a 40% CO<sub>2</sub> Reduction by Updating the System that Handles the Bank's Daily Business

As a regional bank representative of the Hokuriku area, the Hokuriku Bank provides community-based financial services. They upgraded their internal business system in February 2011. As one of their goals, in addition to increasing management efficiency and reducing operating costs, they also hoped to reduce their environmental burden. For this bank, increasing the environmental efficiency of systems used in daily business was an important issue because it proactively promotes environmental protection activities and aims at reducing their energy consumption by 1% per year and 5% over five years in accordance with the Japanese revised Energy Conservation Law, which came into effect in April 2010.

In upgrading their system, while concentrating the very large number of servers installed at the various banking offices in one business systems center, they adopted Fujitsu green products. Furthermore, they switched to a mechanism in which virtual desktops (including PC OS and application software) are provided on the servers in the business systems center and the staff access that software from their individual PCs. This created a system that can be used efficiently. As a result, the required ICT resources can be maintained while the number of physical servers, the power consumed and their cost, could be significantly reduced. When we investigated the  $CO_2$  reduction effect of the new system operated in this way, we found that it provides an effective reduction in  $CO_2$  by about 119 tons per year, which corresponds to a 40% reduction.

## Voice

and facilities.

## Akira Watanabe

Construction and Design Team Head Management Control Division, The Hokuriku Bank, Ltd.

Our bank has already pushed forward with a variety of approaches to reduce our environmental burden, including the installation of solar panels, growing greenery on rooftops, and switching to LED lighting. As part of that effort we have been



to LED lighting. As part of that effort we have been searching for a mechanism to reduce our environmental burden within the bank. While the main aims of this system update were to increase efficiency and reduce costs, the effect of reducing environmental burdens was also one that we could not overlook. I hope that in the

future we can review our air conditioning and other equipment

## **Providing Environmental Solutions**

We provide solutions that support both implementing and improving environmental management so that our customers can achieve both their management strategies and reduced environmental burdens.

## Basic Approach

#### Environmental Solutions that Support our Customers' **Environmental Management**

In the context of increasingly severe economic crises and environmental problems, our customers must promote environmental management that aims at establishing management strategies and reductions in environmental burdens. Both are essential if they are to maintain and continue their business.

We at Fujitsu provide environmental solutions to support our customers' environmental management. We evaluate our customers' environmental activities and we "render visible" issues that must be improved in an integrated manner from a management standpoint. We propose measures that resolve environmental issues in a way that conforms with our customers' business strategies. Furthermore, our efforts are not limited to evaluating the current situation and proposing measures; we also support continuously increasing the level of our customers' environmental management by iterating the PDCA cycle.

When implementing an environmental solution, we propose optimal combinations of products and services from our extensive lineup that marshals Fujitsu's rich experience and know-how, including the collection and analysis of environmental information from within the organization, chemical substances management, facilities infrastructure management, and office power consumption management.

## Environmental Solution Example Starting to Provide Energy-Saving Solutions

According to the revisions of the Japanese Energy Conservation Law that went into effect in April 2010, every individual business operator whose total annual energy use exceeded 1,500 kl when converted to its crude-oil equivalent must report that usage to the government. As a result, there were businesses mainly involved in office work and manufacturers owning medium-sized factories who did not previously have to file but were now required to report this usage. Furthermore, businesses subject to this law are required to make efforts to improve energy efficiency by at least 1% on average per year. For corporations, in addition to complying with such legal obligations, saving energy is a critical issue that they must face from the standpoints of both CSR and cost reduction.

Therefore, in FY 2010, we released "energy-saving solutions" that combine tools and processes to resolve such problems.

First, processes form a foundation in which we iterate the PDCA cycle, and this becomes the cornerstone of energy-saving activities. Even if a business simply introduced new equipment, collected and tabulated energy consumption data from each division, and reported that to the government to deal with the revised Energy Conservation Law, this would be mere compliance with the law and would not be a true resolution of the problem. The essential aspects here are saving energy and reducing costs

#### Various Energy-Saving Solutions Provided by Fujitsu

Management Level, General Affairs, and Environment Divisions

Implementing energy management SLIMOFFICE – environmental management information system that supports the revised Energy Conservation Law

#### Facilities Control Room •

Reducing power and costs in facilitie (such as office buildings, factories, data centers) EDRAS for Windows – facilities

management system

- Futuric/SX Series building
- management systems
- Green Infrastructure Solutions

## **Energy Saving Support and Consulting**

Contributing to saving electricity through a variety of consulting options that support reducing power consumption

- Server room environmental diagnostic service
- Sales premises environmental diagnostic service
- Green facility service
- Medium and long-term planning support service



#### On the Office Floor

Cost reductions through management of printed records, electronic documents, and space saving

- EcoGate Print authorized printing solution RAKU-RAKU Library – document filing software
- Facility Cube ancillary facility all-in-one server rack

#### In Meeting Rooms

Reducing business travel costs by reducing personnel travel

 Internet Navigware – e-learning solution ·JoinMeeting – Web teleconferencing service

#### In Server Rooms

- Reducing electricity costs for ICT equipment •Systemwalker Desktop Patrol V 14g – PC resource management, security, and power saving measures
- SupportDesk Maintenance Service Plus Electricity saving status management

Fujitsu energy-saving solutions support a wide range of workplaces, including offices, conference rooms, and server rooms, and support saving energy, reducing environmental burdens, and cutting costs (in personnel, physical objects, and transportation).

WEB

Electricity and Energy Saving Solutions (in lapanese) http://ip.fujitsu.com/solutions/eco/energy by implementing the whole process of rendering the data visible, analysis, forming a plan, and taking any required measures. Also, after taking the required steps to check the effect, they must also collect and tabulate data and aim for further improvements. We at Fujitsu support our customers in implementing this Infinity Loop (shown in the accompanying figure).

#### The "Infinity Loop" that Promotes Energy Savings and Cost Reductions



Furthermore, tools are necessary to actually iterate the PDCA cycle in accordance with the process. For example, we use the SLIMOFFICE environmental management information system in data collection and tabulation, reporting, and rendering visible. We support the analysis and forming of phased plans with consulting

### Adoption Example Dainippon Screen Mfg. Co., Ltd.

Additionally, it is important to increase the motivation of each and every employee to achieve energy savings. Fujitsu doesn't just render data visible to those in charge of energy savings, we also consider it important to make this data visible to employees. For example, by creating a mechanism that displays the previous day's

up for our customers' daily energy saving efforts.

example, by creating a mechanism that displays the previous days energy usage when an employee arrives at work and first turns on his or her PC, it becomes possible to rank individuals or divisions and to recognize individuals or divisions that achieve energy saving targets. Raising the interest and motivation of employees with positive approaches such as this can be effective in leading to successful energy saving efforts. We will continue to work to improve our support for our customers' energy saving efforts through processes, tools, and proposals that lead to increased employee motivation.

services provided by Fujitsu Facilities Ltd. For the phase in which

set of Fujitsu tools, including electronic document creation,

management of printed records, and videoconferencing tools.

the necessary measures are implemented, we provide an extensive

These processes and tools form two-fold support and powerful back

As an electricity-saving measure associated with the Great East Japan Earthquake, we started an energy-saving advice service in June 2011 through which we can provide the Fujitsu Group's energy saving know-how to our customers.

#### Consolidated management of environmental management information achieved and data collection and tabulating work load reduced by 20%

Dainippon Screen, which develops and manufactures printing equipment and manufacturing equipment for semiconductor and display products, had previously managed their energy consumption on a per business site basis. The enormous amount of work required to organize the data was a burden when their environment and safety promotion division assembled the data for every business site.

Here, after looking into the systematizing of this work, the superiority of a standard template and pricing became evident and the customer adopted the Fujitsu SLIMOFFICE EX environmental management system. Dainippon Screen started using this system in 2009.

SLIMOFFICE EX is a dedicated software system for consolidated management and analysis of the entire process from the collection of environmental performance data through environmental accounting. This system implements our standard template, which assembles

#### Fujitsu's know-how and can easily create the materials required for environmental reporting documents and the regular reports that must be filed under Japan's revised Energy Conservation Law.

As a result of adopting SLIMOFFICE EX, in addition to consolidating management of relevant information and becoming able to analyze its environmental activities, Dainippon Screen was able to reduce the amount of work associated with data collection and tabulation by about 20% and its CO<sub>2</sub> emissions by 13%.

Furthermore, in July 2010, Dainippon Screen acquired the world's first international certification for the ISO 50001 energy management system of their Rakusai business site. In addition to support for ISO 50001, we also plan to apply the SLIMOFFICE EX software system to activities other than environmental ones, for example labor and safety management.



## Efforts to Prevent Global Warming

We are examining all of our business operations in our efforts to reduce greenhouse gas emissions—not only factories and offices but also transportation and the products and services we provide.

### Basic Approach

We are working to reduce emissions of greenhouse gases associated with all our Group business activities. These efforts include reducing emissions of CO<sub>2</sub> due to energy consumption and other greenhouse gases at our factories and offices and reducing emissions associated with transportation (see page 62).

Furthermore, we are working to prevent global warming throughout all areas of business activity by contributing to reduced emissions of greenhouse gases by our customers, industry, and society in general by developing Green Products and Super Green Products (see page 45) that contribute to reducing environmental burdens and by providing IT solutions (see page 51).

## Preventing Global Warming from the Business Site Greenhouse Gas Emission Reduction Targets

We have set "reducing our total greenhouse gas emission by 6% by the end of FY 2012 compared with FY 1990 (the breakdown for total emissions is a 5% reduction in CO<sub>2</sub> due to energy consumption and a 20% reduction in gasses other than CO<sub>2</sub>)" as a goal of the Fujitsu Group Environmental Protection Program (Stage VI).

Our actual total emissions for FY 2010 globally were about 1.185 million tons, which is a reduction of about 128 thousand tons from the previous fiscal year and an 11.7% reduction from FY 1990.

### Trends in Total Greenhouse Gas Emissions (whole group and global)

CO2 emissions in Japan CO2 emissions outside Japan Emissions other than CO2 (10,000 tons) 200

189.4

Target total



\* CO2 conversion coefficient for purchased electric power: Calculations have been performed with a fixed value of 0.407 ton of CO2 per MWh since FY 2002 for performance reports in our Environmental Protection Program.

#### Reduction of CO<sub>2</sub> Emissions due to Energy Consumption

CO<sub>2</sub> emissions due to energy consumption are responsible for about 85% of the Fujitsu Group's greenhouse gas emissions.

Therefore, we continuously work to improve the following energy-saving measures to reduce CO<sub>2</sub> emissions.

- Energy-saving equipment, focusing on motive-power facilities (introduction of free cooling, inverters, energy-saving facilities, fuel conversion, etc.)
- Increased efficiencies through revised manufacturing processes, accompanied by proper motive-power facility operation and improvement of management
- Adjusting appropriate room temperature for office air conditioning, saving electricity for lighting and office automation equipment
- Promotion of the measurement and visualization of energy consumption and proactive use of that data
- Use of natural energy sources such as solar power

Further, we set up a new Low Carbon Committee (see page 66) at the corporate level in September 2008, establishing reduction targets for each business unit. Stronger measures to achieve these targets follow reforms to processes and equipment (in mounting, assembly and testing) and the development of new technologies. Moreover, our Capital Investment Guidelines define the economic and environmental criteria for investment as we identify and urgently implement priority measures.

As a result, our actual energy-consumption CO<sub>2</sub> emissions for FY 2010 were about 1.014 million tons (958 thousand tons in Japan, 56 thousand tons outside Japan), which corresponds to a 27 thousand ton reduction from the previous fiscal year and a 6.4% reduction from FY 1990.

#### Activities Example

#### Reducing CO<sub>2</sub> emissions with outside air cooling and the adoption of turbo cooling units for air conditioning

When we upgraded the aging water-cooled chillers at the Fujitsu Yatsuo Center, we reviewed the facility to determine an appropriate cooling capacity and upgraded to turbo cooling units with high energy efficiency. In contrast with the COP (energy consumption efficiency) value of 4.1 for the water-cooled chillers, the turbo cooling units have a COP value of 5.7\* and achieve a reduction in CO<sub>2</sub> emissions due to energy savings.

Furthermore, we adopted equipment that draws in the cool, comparatively damp, outside air that is characteristic of Toyama Prefecture for server room air conditioning. We expect to save an amount of power roughly equal to that consumed by one server air conditioner during periods when outside air is used. We expect to achieve an annual CO<sub>2</sub> emissions reduction of 116 tons through these measures.

\* The values shown here for the water cooled chillers and outside air cooling are based on actual operating performance and the values for the turbo cooling units are based on the manufacturer's catalogs.

<sup>\*</sup> Greenhouse gases other than CO<sub>2</sub>: These are converted to equivalent amounts of CO<sub>2</sub> using the global warming potential (GWP) of each gas. Our FY 1995 performance is taken to be the emissions in FY 1990.

#### Reducing Emissions of Greenhouse Gases Other than CO<sub>2</sub>

The semiconductor industry has established a voluntary action plan to reduce the emissions of PFC, HFC and SF $_6$ , which are all greenhouse gases.

We in the Fujitsu Group have set a target of reducing emissions by 10% relative to FY 1995 levels by the end of FY 2010, which is the industry target, and furthermore have set a target of a 20% reduction by the end of FY 2012 for the Fujitsu Group Environmental Protection Program (Stage VI). In our semiconductor divisions, we have changed to gases with a lower global warming potential and, for example, continue to install equipment to extract harmful materials in new and existing fabrication lines.

In FY 2010, we reduced the amount of these emissions measured in global warming potential (GWP) equivalent by 101 thousand tons to about 171 thousand tons by changing gases used and other measures as well as installing 15 new harmful materials extraction units. Since this corresponds to a 33.9% reduction compared to FY 1995, we succeeded in achieving the industry target.

#### Promoting the Use of Renewable Energy

Although we have adopted renewable energy sources such as solar generation at some of our business sites, in the Fujitsu Group Environmental Protection Program (Stage VI), we have set increased use of renewable energy as a new goal, and introduced the target of installing three times as much capacity by the end of FY 2012 as we had in FY 2007.

In FY 2010, we installed 30 kW of solar generating capacity in the Fujitsu FIP data center, which opened in December, and 120 kW at FDK TWICELL. This resulted in a total installed capacity of solar generating equipment of 265 kW at the end of FY 2010, which is 4.8 times that of FY 2007.

Additionally, we increased our target value to 10 times the FY 2007 level by the end of FY 2012, based on our current installation plans.

FDK TWICELL manufactures rechargeable batteries and has implemented a mechanism in which solar generated electricity is used for initial charging of batteries before shipment.



Solar panels at FDK TWICELL

## Cumulative Total of Installed Solar Generation (renewable energy\*)

Installation through the previous fiscal year (Rated capacity, kW)

 600
 Teresty



\* Renewable energy utilization ratio: Calculated based on the rated capacity of solar generation equipment installed at Fujitsu business sites.

#### Responding to the Japanese Revised Energy Conservation Law

As a result of the revisions to and enforcement of the Japanese Energy Conservation Law<sup>\*1</sup>, business operators are now required to grasp their annual energy usage at all their business sites in Japan.

In the Fujitsu Group, we use a system (Fujitsu FIP's SLIMOFFICE) that grasps and tabulates the amount of energy we used in all of Japan, include the office space we rent, and manages the amount used by each company in the Group. Note that the Fujitsu Group includes 26 companies that fall within the class of Specified Business Operators (businesses whose annual energy usage is in excess of 1,500 kl when converted to a crude oil equivalent value) newly stipulated in the revised law.

Also, the amount of energy used by the Group within Japan under the Energy Conservation Law in FY 2010 was 618 thousand kl, and that corresponds to CO<sub>2</sub> emissions of about 1.096 million tons<sup>\*2</sup> based on the Law Concerning the Promotion of Global Warming Countermeasures<sup>\*3</sup>, which was also revised.

- \*1 Energy Conservation Law (abbrev.): the Law Concerning the Rational Use of Energy.
- \*2 About 1.096 million tons: There are differences in ranges for tabulation that include tenants and calculations based on CO<sub>2</sub> conversion coefficients for each electric power company for results reporting under our Environmental Protection Program.
- \*3 A system for calculating, reporting, and disclosing the amount of greenhouse gas emissions stipulated by Japan's Law Concerning the Promotion of Global Warming Countermeasures.

#### Participating in a Trial Emission Trading Scheme

We participated from FY 2008 until FY 2010 in the Japanese government's domestic emissions trading scheme pilot project, launched in FY 2008 with the aim of examining further global warming countermeasures based on a medium to long term viewpoint.

Continuing in FY 2010, we were validated by an external institution according to the trial emissions trading scheme\* pilot project, our emissions level for FY 2009 was verified, and we achieved our targets for the FY 2008 to FY 2009 period.

\* Trial emissions trading scheme: The principal framework for the trial implementation of an integrated emissions trading market in Japan. Participants voluntarily establish emission reduction targets and are allowed to supplement their own reduction efforts by trading emission allowances and credits.

#### Efforts Related to Scope 3

We have disclosed greenhouse gas emissions due to corporate activities through the Carbon Disclosure Project (CDP)\* for many years and we are also working to calculate our emissions of greenhouse gases including those of the supply chain.

Currently, the Scope 3 Accounting and Reporting Standard for calculating emissions from the whole supply chain is being studied for standardization in fall 2011 under the GHG Protocol, which is an international guideline for calculating and reporting greenhouse gas emissions. Also, in Japan, the Ministry of the Environment held an investigative commission on methods for calculating greenhouse gas emissions in the supply chain starting in July 2010. As a member of the subcommittee on product systems of that commission, we collected and assessed the data, and analyzed the precision and completeness of the calculated values. Based on the results of this case study, we are working towards methods for calculating the Scope 3 emissions internally.

\* Carbon Disclosure Project (CDP): A project in which institutional investors and others cooperate to request disclosure of information concerning climate change strategy and greenhouse gas emissions from the world's leading corporations. Priority **2** Protecting the Global Environment

t Benefiting customers and society Pursuing internal reforms

## **Reducing Environmental Burdens at the Factory**

We promote comprehensive environmental protection activities based on the Fujitsu Group Environmental Protection Program (Stage VI) at the factories that perform our manufacturing.

## Approach to Reducing Burdens at the Factory

The Group continually strives to reduce the quantities of materials, water resources, and energy used at its factories, as well as the amounts of chemicals and waste materials generated and atmospheric pollutants emitted, while trying to minimize manufacturing costs. It also takes a rigorous approach to complying with laws and regulations and eliminating environmental risks.

## Promotion of Green Process Activities in the Semiconductor Fabrication Process

In the Fujitsu Group, we promote Green Process activities, which implement, in coordination with cost-saving activities, measures such as optimizing the energy and amount of raw materials used in manufacturing processes and switching to alternative components with lower environmental burdens.

Previously, we promoted Green Process activities at all Fujitsu Group manufacturing sites. However, starting in FY 2010, we have, based on the past results of these activities, specialized these efforts for semiconductor fabrication factories that require particularly large inputs of raw materials such as chemical substances. We are also promoting activities at other manufacturing sites that focus on facilities and process improvements and on new technology development in the manufacturing areas (mounting, assembly, and testing processes) which we established in FY 2008.

In the Green Process activities at semiconductor fabrication

#### Example of a Green Process Activity • Fujitsu Integrated Microtechnology Ltd.

#### Reducing Industrial Waste by Processing Waste Plating Solution at the Factory Itself

At Fujitsu Integrated Microtechnology, which handles the Fujitsu Group semiconductor product packaging and test processes, each division within the factory sets its own targets for the Green Process activities it promotes.

For example, at the Kyushu plant, when we moved the previously subcontracted plating process in house, we decided to process some of the waste plating solution that had previously been subcontracted for processing as industrial waste to a vendor by using liquid waste processing facilities within the plant and so reduced the amount of liquid waste shipped out of the plant.

To process waste plating solutions within the plant, we installed new waste plating solution piping and at the same time as asking the plant builder for opinions on the load it would impose on the wastewater processing equipment, we repeatedly tested to determine the optimal values for conditions such as pH adjustment and the amount of processing chemicals added for the amount of liquid waste entering the equipment.

As a result of these efforts, we reduced both the CG value and costs by 89.4% on average compared to the previous method.

factories, as we did before, we first identify the total input of materials (raw materials, chemical additives, etc.) and energy into the process, together with their purchasing costs, and then establish our own original CG (Cost Green) index\*. Based on this, we then set quarterly or semiannual reduction targets (planned values) at the production line level for each factory and evaluate the degree of attainment of these targets while going through the PDCA cycle. Based on the results, we try to continually improve our production processes through initiatives like introducing new manufacturing technology, revising our processes, and improving the work procedures.

Also, for activities other than those for manufacturing processes at factories, if promoting the activity in coordination with the manufacturing process would be more efficient, we adopt the CG index (Cost/Green index) approach in those activities as well.

\* CG index: Cost/Green index: This index describes the product of input volume used per product, the cost, and the environmental impact (on a scale from 1 to 10).

## Reducing the Amount of Waste Generated Basic Approach

Working towards a recycling-minded society, our 3R\* policy encourages all employees to separate waste materials into different categories for effective recycling.

\* 3R: Reduce, Reuse, and Recycle

#### FY 2010 Performance

In Fujitsu Group Environmental Protection Program (Stage VI), we set the goal of reducing the amount of waste generated by our business operations by 20% compared to FY 2007 levels by the end of FY 2012.

We generated 31,063 tons of waste in FY 2010, which was a 1.3% reduction from the previous fiscal year's level and a 20.1% reduction from the FY 2007 level. The reasons for these reductions include the conversion of waste paper and waste acid to valuable materials.

These results include the Japanese companies FDK TWICELL and FDK Tottori, which have become consolidated companies as of this fiscal year.

#### Amount of Waste Generated

Amount of waste generated - - Effective utilization ratio\*

(tons)												(%)
50,000	9	6.	39	7.3	39	6.3	97	7.5				100
40,000	38	8	64	•		•			Reference level	Refe le	rence vel	80
30,000			34,058		31	,470	31,	063	, <b>▼</b> Ta	rget: 3%	Targ 209	et: 60
20,000										S12	; reduct	tion 91.40
10,000										   	1	20
0												0
	20	00	7 20	300	3 20	009	20	10	2011 (target)	20 (tar	12 <sub>get)</sub>	(FY)

\* This ratio includes waste materials that are the object of zero emissions policies including ordinary waste (Japan only).

#### Example of a Waste Generation Reduction Activity • Shinko Electric Industries Co., Ltd.

## Recovery and Reuse of Nitric Acid Waste in the Plating Process

We use nitric acid to strip off and remove copper and nickel that has adhered to plating jigs and plating tanks at the Shinko Electric Industries Co., Ltd. Wakaho plant, and process that acid as liquid waste containing dissolved metals.

By purifying and concentrating this liquid waste using a diffusion dialysis method, we made it possible to recover and reuse the nitric acid. As a result, we were able to reduce the amount of nitric acid used by about 1,000 tons per year.

#### Nitric Acid Recycling Using Diffusion Dialysis



Waste nitric acid Recovered nitric acid

## Reducing Water Use

#### **Basic Approach**

We are working to reduce our use of water resources through recycling and reuse of service water, the use of rainwater, and other measures.

#### **Results for FY 2010**

Our water use for FY 2010 was 21,628 thousand cubic meters. This was a 6.4% reduction from FY 2009 and a 12.0% reduction from FY 2008.

The ratio of recycled water to total water use was 27.0% in FY 2010, which was an increase from the 26.2% ratio in FY 2009.

#### Trends in Water Use



## Reducing Chemical Substance Emissions Basic Approach

Prevention of environmental risks that could lead to environmental pollution or adverse health effects due to the use of harmful chemical substances has been established as our basic policy for chemical substances management. We manage the amounts used for about 1,300 chemicals, and we work to reduce the amount discharged and implement appropriate management at every business site.

#### **Results for FY 2010**

We set the goal of reducing emissions of specific chemical substances by 10% compared to FY 2007 by FY 2012 in the Fujitsu Group Environmental Protection Program (Stage VI).

Emissions of specific chemical substances by the whole Fujitsu Group in Japan in FY 2010 were 132 tons, which was a 48% reduction compared to the FY 2007 reference year.

#### Trends in Emissions of Specific Chemical Substances\*

(tons) 300



\* Specific chemical substances: Of the substances that are the object of VOC and PRTR regulation, those for which the amount handled is at least 100 kg/year, and one substance selected from the top three substances in emission levels for the reference year.

#### Example of Reducing Specific Chemical Substances Reducing VOC Emissions by Substitute Metal Mask Cleaners

We have been working since 2005 to reduce VOC emissions at the Fujitsu Nasu plant, which mainly manufactures cell phones and cell phone base stations.

Among VOCs of concern, we previously used 1-methoxy-2propanol as a cleaner for the metal masks used when printing solder paste on printed circuit boards at the Nasu plant. As the result of evaluating an isoparaffin family hydrocarbon solvent that does not contain this substance, we determined that the cleaning ability of this solvent is not inferior to that of the earlier cleaner. In July 2010, we started switching over to non-VOC cleaners and succeed in completely eliminating the use of 1-methoxy-2-propanol.

#### Comparison of Metal Mask Cleaning Quality The same quality level was achieved after switchover (lower photograph).



## Reducing Environmental Burdens at the Factory

### Environmental Liabilities

We intend to be a corporate group that accurately forecasts and evaluates today the extent of its environmental liability tomorrow, that does not defer settlement of this liability to a later date, and that discloses information to its stakeholders on the soundness of the Group from a medium- to long-term perspective. To achieve this, at the end of FY 2010 we recorded as a liability on the Group's consolidated balance sheet 5.38 billion yen soil-pollution cleanup costs, high-level PCB waste disposal costs, and asbestos processing costs during facilities demolition. Based on data previously acquired, this total is the amount we calculate to be necessary for the Fujitsu Group in Japan to carry out these tasks.

For processing waste with high levels of PCBs (transformers and capacitors), we have registered in advance with Japan Environmental Safety Corporation (JESCO), which processes PCB waste under Japanese government supervision, and perform this processing based on JESCO plans.

## Responding to Soil and Groundwater Pollution

We have reviewed our internal rules established in FY 2006 in response to soil and groundwater problems and will handle such problems based on these revised rules for soil and groundwater surveys, policies, and disclosure. In the future, at the same time as performing planned surveys and, if pollution is discovered, implementing cleanup operations and countermeasures appropriate for the conditions at each business site, we will also disclose relevant information in collaboration with government authorities.

The following website gives an overview of our initiatives to combat soil and groundwater pollution, together with the results of our surveys of groundwater pollution at our sites in Japan and the status of our cleanup operations at those sites.

WEB Our initiatives to combat soil and groundwater pollution (in Japanese)

http://jp.fujitsu.com/about/csr/eco/factories/gwater/

### Status of New Soil and Groundwater Pollution Measures Undertaken in FY 2010

A voluntary survey in FY 2010 revealed soil and groundwater contamination at one site. We reported the state of contamination at this site and explained our countermeasures to local citizens and authorities.

In FY 2010, we completed the soil and groundwater decontamination work started in 2007 at the Suzaka plant and reported its completion to the local citizens and authorities. We will continue to perform periodic groundwater monitoring in the future.



Contaminated soil removal from an underground storage tank at the Suzaka plant

#### Measures to Purify Soil and Groundwater Pollution Due to Past Business Activities

We have dug wells to monitor groundwater contamination near our sites where soil or groundwater contamination has been found. We continuously monitored seven such sites in FY 2010.

The table below lists the largest of the most recent measurements for chemicals whose measurements are recognized to have exceeded legal limits in FY 2010 stemming from past business activities.

#### Business Sites Where Soil or Groundwater Contamination Has Been Found

Site		Location	_ Cleanup and	Monitoring W Maximum Value	Regulation	
	Name	Location	Countermeasure Status	Substance	Measured value	Value (mg/l)
	Kawasaki plant	Kawasaki City, Kanagawa Prefecture	We are continuing to clean up VOCs by pumping and aeration.	Cis-1, 2- dichloroethylene	2.5	0.04
Oyama		Oyama City, Tochigi	We are continuing to clean up VOCs by pumping and	Cis-1, 2- dichloroethylene	3.075	0.04
	plane	Prefecture	aeration.	Trichloroethylene	0.452	0.03
	Nagano	Nagano City, Nagano	We are continuing to clean up VOCs initiatives by	Cis-1, 2- dichloroethylene	0.33	0.04
	plane	Prefecture	pumping and aeration.	Trichloroethylene	0.045	0.03
	Shinetsu Fujitsu	Shinano machi, Kamiminochi Gun, Nagano Prefecture	We are continuing to clean up VOCs by pumping and aeration.	Cis-1, 2- dichloroethylene	0.048	0.04
		Oyama City, Tochigi Prefecture	We are continuing to clean up VOCs by pumping and aeration.	Cis-1, 2- dichloroethylene	0.095	0.04
	Optical Components			1, 1- dichloroethylene	0.024	0.02
				Trichloroethylene	0.31	0.03
	FDK Sanvo plant	Sanyo-Onoda City, Yamaguchi	We are continuing to clean up VOCs	Cis-1, 2- dichloroethylene	0.061	0.04
	Sunjo pione	Prefecture	aeration.	Trichloroethylene	0.11	0.03
	FDK	_	We are continuing	Cis-1, 2- dichloroethylene	0.42	0.04
	Washizu plant	Washizu, Kosai Gity, Shizuoka Prefecture	to clean up VOCs by pumping and	Trichloroethylene	0.16	0.03
	piant		aeration.	Tetrachloroethylene	0.044	0.01

## Reducing the Environmental Burden in Offices

We strictly observe all laws concerning the environment and also work to save energy and achieve zero waste emissions, not only in our factories but also in all our business offices in Japan and overseas.

#### Green Office Systems

To promote environmental burden reductions that exhibit the greatest possible degree of group governance, even in business offices, we initiated our Green Office system in FY 2007. This system comprehensively evaluates aspects such as the level of environmental consideration and independent efforts at each office and renders visible this evaluation by assigning one of three levels (see the following figure).

In the Fujitsu Group Environmental Protection Program (Stage V), we established the goal of achieving a level of two stars ( $\star\star$ ) or more at every office in Japan covered by this system by the end of FY 2009 and we aim to continuously improve and increase our level of environmental awareness. As a result of this effort, all of the offices at 371 sites had achieved the three star ( $\star\star\star$ ) level by the end of FY 2009. At the same time we also achieved zero waste emissions\* of waste materials from all 371 sites, which was the largest such effort in Japan.

In the Fujitsu Group Environmental Protection Program (Stage VI), which started with FY 2010, we set achieving a level of four stars ( $\star \star \star$ ) or higher at every office in Japan covered by this system by the end of FY 2012. In addition to the three star ( $\star \star \star$ ) level conditions, the following items were added to the four star ( $\star \star \star$ ) level conditions: biodiversity conservation activities, disclosure of environmental information to stakeholders, and unification of industrial waste processing for office emissions. Furthermore, there are now five achievement levels. At every office, at the same time as initiating activities to achieve this goal, we plan to create opportunities to discuss issues common to all offices and promote environmental activities intimately linked to the local community.

For our overseas sites, we initiated surveys of current conditions in FY 2010. In the future we will collect proposals based on the results of this survey and we are looking into implementing trials of those proposals.

\* Zero waste emissions: For simple calculations of emissions from the incineration or landfill disposal of industrial waste and paper waste

#### Overview of the Green Office Evaluation System



#### Activities Example

## Reducing Power Consumption at Offices by Using Smart Power Sockets

In May 2010, we started trial use of smart power sockets (which include a miniature power sensor) in some Fujitsu offices and succeeded in reducing average monthly power consumption by about 15%. This was due to increased individual awareness of energy saving, in such things as making special efforts to turn off personal computers when not in use by rendering visible power used in individual employee and individual equipment item units.

The smart power socket is a power tap that uses miniature highresolution power sensor technology developed by Fujitsu Laboratories and can detect the power consumed by the connected equipment. This device renders visible the waste and variation in power used in individual employee and individual equipment item units and promotes energy saving without degrading business productivity.

The detected values can be displayed on personal computers or accessed over a network. These smart power sockets have been marketed since April 2011 by Fujitsu Component Limited.



Smart power socket and gateway



\* Results of tests at some Fujitsu offices

### Reducing Waste from Offices On-Site Waste Disposal Auditing

The important Law on Waste Disposal and Cleaning applies to all offices in Japan.

To confirm that ICT equipment and other types of industrial waste are being properly dealt with, we perform standardized group-level checks of the regular on-site audits both of the security levels at companies that process confidential documents and at Fujitsu Recycling Centers that have elected to dispose of in-house ICT equipment. A member of the Fujitsu Corporate Environmental Strategy Unit visits both the recycling centers and companies that process confidential documents once a year with the person in charge of waste disposal from the relevant office, using a standardized checklist to check the documentation and the onsite disposal operation itself. Priority **2** Protecting the Global Environment

(Benefiting customers and society)

Pursuing internal reforms Conserving biodiversity

## Green Procurement with a Centralized Global Procurement System

We are promoting green procurement together with our business partners by using our unique proprietary centralized global procurement system to provide our customers with products and services having minimal environmental burdens.

### Fujitsu Group Green Procurement Direction

We are aggressively promoting green procurement activities together with our business partners based on the Fujitsu Group Green Procurement Direction describing our basic approaches to procurement of eco-friendly parts, materials, and products and items we require of our business partners.

WEB Fujitsu Group Green Procurement Direction http://www.fujitsu.com/global/about/procurement/green/

## Green Procurement Requirements for Our Business Partners

We request that our business partners implement the following two activities to promote green procurement.

#### Establishment of Our Business Partners' EMS\*

We require as a matter of principle that all our business partners establish a third-party certified EMS to ensure that they continuously implement environmental burden reduction activities. We also periodically survey the status of their EMS implementation by using our original survey form.

\* EMS: Environmental management system

### Establishment of Our Business Partners' CMS\*1

We request our business partners to establish a chemical substances management system (CMS) based on the JAMP\*<sup>2</sup> guidelines on management of chemical substances contained in products. If their management system is inadequate when we audit their manufacturing sites, we will provide support for correctional efforts that aim to strengthen their management system in the supply chain.

As of the first half of FY 2010, all of them covered by this effort had completed establishment of a CMS. We will continue with these efforts in the future.

\*1 CMS: Chemical substances management system

\*2 JAMP: Joint Article Management Promotion-consortium http://www.jamp-info.com/english/

## Green Procurement Activities Based on the Fujitsu Group Environmental Protection Program (Stage VI)

Since FY 2010, we have been promoting the limitation or reduction of CO<sub>2</sub> emissions and the conservation of biodiversity as the Fujitsu Group Environmental Protection Program (Stage VI) and we ask all of our business partners to implement activities regarding these two themes.

We have set a target of 100% implementation by our business partners providing us parts and materials by the end of FY 2012 as one goal of the Fujitsu Group Environmental Protection Program (Stage VI). We drew up an activity evaluation index for the situation of our business partners' actions and request that they carry out activities in line with this index to achieve the target.

At the start of these activities, we held 14 briefing sessions for both domestic and overseas business partners and a total of about 1,300 companies participated.

#### Drawing up an Activity Evaluation Index

We set up an original three-stage index for measuring the situation of our business partners' activities and requested their cooperation.



## Promoting Our Business Partners' Efforts to Limit or Reduce CO<sub>2</sub> Emissions and to Conserve Biodiversity

We provided them with our original  $CO_2$  emissions calculation tool to assist with their actions for limiting or reducing  $CO_2$  emissions, and we promoted the establishment of their own internal structure for it by holding a briefing meeting for each business partner to grasp its  $CO_2$  emissions or target.

We provided our original guidelines for biodiversity conservation introducing detailed informative explanations of activities and typical activity examples and our original checklist tool that readily evaluates the current status of their activities. These were provided to our business partners only. We also invited about 20 business partners to our seminars on these themes to improve their knowledge and actions.

We achieved the 60% implementation rate that was the target for the end of FY 2010 as a result of these efforts. We are aiming at a rate of at least 80% for FY 2011 and plan to provide tools and seminars for promoting these efforts in order to support our business partners in making further improvements in these areas.

## TOPICS

#### Receiving the Grand Prize at the Green Purchasing Awards\*

Our activity for biodiversity conservation was awarded the grand prize at the Twelfth Green Purchasing Awards in October 2010.

Our efforts were highly acclaimed for innovation and uniqueness. Specifically recognized were the Fujitsu Group's encouragement of its business partners to conserve biodiversity, the fact that we provided guidelines to our business partners,

and that we set up an evaluation index.



Awards ceremony at the Green Purchasing Awards

\* Green Purchasing Awards: An awards system that aims to spread green procurement through the Green Purchasing Network.

Priority **2** Protecting the Global Environment

(Benefiting customers and society)

## **Environmental Considerations in Distribution**

We are promoting the rationalization and streamlining of distribution while keeping the whole global supply chain in mind. We are also working to reduce the  $CO_2$  emissions associated with distribution.

## Promoting Global Green Distribution

We are working on Green Logistics Activities which strive to reduce CO<sub>2</sub> emissions associated with transportation by coordination between the distribution divisions of all group companies and cooperation between manufacturing and sales divisions. Furthermore, we take advantage of partnerships with our business partners and strive to reduce the environmental burden associated with distribution across the whole supply chain.

Our goal was to reduce CO<sub>2</sub> emissions in domestic distribution by 11% compared to FY 2008 by the end of FY 2012 as proposed in the Fujitsu Group Environmental Protection Program (Stage VI). However, by expanding modal shifts and reducing the number of trucks, we were able to achieve an 18% reduction (this includes fluctuations in amounts distributed and the effects of the March 2011 earthquake) compared to FY 2008 in FY 2010. We have therefore increased our target for FY 2012 to a 15% reduction compared to FY 2008.

We have also started to measure the CO<sub>2</sub> emissions in international transportation and the transportation CO<sub>2</sub> emissions at overseas sites and thus are promoting green distribution activities globally.

## Trends in CO<sub>2</sub> Emissions from Transportation (Fujitsu Group)



### **Expanding Modal Shifts**

We are working to reduce CO<sub>2</sub> emissions using modal shifts and are promoting effective activities based on rail transport and switching from air to surface transport. In FY 2010 we promoted such modal shifts for personal computers, cell phones, and purchased materials.

As a result of increasing our use of rail transport, we acquired Eco Rail Mark certification as established by the Japanese Ministry of Land, Infrastructure, Transport and Tourism and the Railway Freight Association in March 2011.



### PCs

In August 2010, we switched from trucks to rail for transport of notebook personal computers for corporate customers and some maintenance parts shipped from Shimane Fujitsu Ltd. to the Tokyo distribution center. We implemented this by coordination between the factory and related divisions and moving up shipment times.

## **Purchased Materials**

From May 2010, we changed our method of transporting purchased imported materials from Tokyo Bay to Fujitsu Isotec Limited. In addition to the earlier 20-foot containers, we also changed from truck transport to rail transport for the 40-foot sea-going containers. This was because we are participating in the Ministry of Land, Infrastructure, Transport and Tourism's Rail Transport Model Business program and implemented this effort jointly with the Japan Freight Railway Company.

# TOPICS

## Receiving Minister of the Environment's Award

We received the 2010 Minister of the Environment Award for the Prevention of Global Warming\* sponsored by the Ministry of the Environment for reducing CO<sub>2</sub> emissions through modal shift.

This award reflects the fact that we were given high marks for significantly reducing transportation CO<sub>2</sub> emissions by aggressively adopting modal shifts in cooperation between distribution companies and our related divisions and by implementing a consistent system from materials procurement through product shipment.

\* 2010 Minister of the Environment Award for the Prevention of Global Warming: This award, established in FY 1998, is awarded every year as part of the Ministry of the Environment's promotion of global warming countermeasures to an individual or group that achieved distinguished results in preventing global warming.

### Adopting Hybrid Vehicles

Starting in November 2010, we switched over to hybrid vehicles for the trucks owned by a cooperating transportation company used

solely by Fujitsu for mail and package delivery in the Tokyo metropolitan area. These vehicles, equipped with ecological tires and Fujitsu in-vehicle terminals, reduce CO<sub>2</sub> emissions by improved fuel efficiency.



Newly adopted hybrid vehicle

## Drawing up the Fujitsu Group Green Logistics and Procurement Direction

We have formulated the Fujitsu Group Green Logistics and Procurement Direction, which specify our basic approach to green distribution and the matters we require of our suppliers. We will work to protect the global environment along with our suppliers through distribution activities based on this procurement direction.



Fujitsu Group Green Logistics and Procurement Direction (in Japanese) http://jp.fujitsu.com/about/csr/eco/products/logistics/guide.html

## **Conservation of Biodiversity**

We have set conservation of biodiversity to be a priority area in the Fujitsu Group Environmental Protection Program (Stage VI) and are promoting activities aimed at conserving biodiversity based on four action plan items.

## Basic Concepts

## Formulating the Four Action Plan Items that Aim at Conserving Biodiversity

Only the bounty of nature makes our daily lives possible. Like the provision of food and forests, climate regulation, water purification, recreation, etc. ,the functions that nature performs for mankind are incalculable. These functions are called "ecosystem services," and they depend on "biodiversity." The recent remarkable deterioration of ecosystems makes conserving biodiversity an urgent necessity to ensure sustainable ecosystem services.

Given this background, we set conserving biodiversity as one goal in the Fujitsu Group's medium-term environmental vision, Green Policy 2020, as published in July 2008. Furthermore, we set a goal of promoting specific efforts by 2020 for all of the items proposed in the leadership declaration for the Business and Biodiversity Initiative, which was signed at the ninth meeting of the Conference of the Parties (COP 9) to the Convention on Biological Diversity (CBD).

To achieve that goal, we settled on the Fujitsu Group

#### The Fujitsu Group Biodiversity Action Principles and Four Action Plan Items



Biodiversity Action Principles in October 2009. In this, we introduced both (1) Pursuing the Conservation of Biodiversity and the Sustainable Use of Natural Resources in Business Activities and (2) Contributing to Building a Society that Ensures the Conservation of Biodiversity and the Sustainable Use of Natural Resources as themes for future efforts and established four related action plan items in the Fujitsu Group Environmental Protection Program (Stage VI), which started in FY 2010.

#### Efforts towards Conserving Biodiversity Quantitative Evaluation to Reduce the Impact on Biodiversity of Our Business Activities

To conserve biodiversity, it is important to evaluate the quantitative impact of business activities on biodiversity and to promote activities that reduce that impact with targets set appropriately.

Accordingly, we first analyzed how our business activities affected biodiversity and ecosystem services. From this, we understand that our influence on ecosystems mainly depends on the use of water and forest resources. We also understand that there were possibilities of impact on biodiversity through (1) use of mineral resources and energy resources, (2) waste processing, (3) land development and reform caused by its use as business sites, (4) contamination due to emissions of chemical substances into the air and water, and (5) climate change due to emissions of greenhouse gasses to the atmosphere.

To reduce such impacts, in FY 2010 we constructed the Fujitsu Group Biodiversity (BD) Integration Index as a means of quantitatively evaluating the influences of business activities on biodiversity. In this framework, we identify business activities that impact biodiversity and extract impacting elements as quantitative data related to this business activity. Next, we use existing methods to evaluate these impacting elements so as to weight and integrate them, and it can



### Framework for Quantitative Evaluation Using the Fujitsu Group BD Integration Index

therefore ultimately provide an index of the loss of ecosystems caused by business activities or of ecosystem value.

In the Fujitsu Group Environmental Protection Program (Stage VI), we have set a target of reducing the impact of our main business areas on biodiversity, as evaluated by the BD Integration Index, by 3% by the end of FY 2012 compared to FY 2009. We are currently evaluating and analyzing impact trends in FY 2010. (The impact caused by the use and emissions of chemical substances is increasing, the impact caused by waste emissions is decreasing.)In FY 2011, we will strengthen our activities that reduce the impact on biodiversity while aiming to achieve a 1.5% reduction compared to FY 2009, the reference year.

## ICT and Biodiversity

### Contributing to the Conservation of Biodiversity Using ICT

The effective use of ICT will make it possible to perform operations such as the collection and analysis/evaluation of information about living things and ecosystems, the monitoring of living things and of their habitat, and the management of information on them efficiently.

As an example of this application of ICT to biodiversity conservation, we implemented a countrywide survey of dandelion distribution using the camera function in mobile phones (see pages 33 and 34).

Fujitsu's ICT is also useful in forest management and conservation. With the number of forests in Japan that are deteriorating due to the inability to perform forestry care, it would make easier to share information and implement functions such as forest registry management, work plan management, and operations performance management by connecting the forest worksites with the offices using an information network.

#### The Possibility of Conserving Biodiversity through ICT



#### Comparison of Tree Species Discrimination by Earlier Methods and Hyper-Spectrum Methods





100 m

: Japanese : Co



Tree species discrimination by

cypress

Furthermore, we are working on vegetation surveys using "hyperspectral imaging analysis technology," currently under development. This technology measures the spectrum of reflections from the ground in a helicopter or other aircraft and analyzes the distribution of vegetation over wide areas of land. By using this technology, we can, for example, survey the extent to which alien species have penetrated existing species' habitats or grasp the distribution of cedars and Japanese cypresses. We believe that this technology will significantly reduce the effort required to survey vegetation distribution, which was previously observed visually.

In the future, we will continue to use our technological abilities and know-how to contribute to avoiding or reducing the loss of biodiversity as well as maintaining and expanding biodiversity through the use of ICT.

## Contributing to Spreading these Efforts Throughout Society

## Participating in External Organizations

We participate in external organizations such as the Business and Biodiversity Initiative (B&B) and the Japan Business Initiative for Biodiversity (JBIB) and contribute to the spread of biodiversity conservation efforts throughout society.

At the ninth meeting of the Conference of the Parties (COP 9) to the Convention on Biological Diversity (CBD), B&B inaugurated the event with the signing, by more than 40 companies from around the world, of the "leadership declaration." By publishing their best practices, these companies promote the conservation of biodiversity and sustainable use. Fujitsu published the results of those efforts at a side event to CBD COP 10.

JBIB is a group in which over 30 Japanese companies from a wide range of businesses participate. Its purpose is to deploy activities that contribute to conserving biodiversity by aiming for dialogue between stakeholders and other companies based on the results of joint research. Fujitsu is involved with research activities and tool development for this effort.

## Activities on a Global Scale

#### Promoting Tropical Rainforest Restoration Activities in Malaysia

To contribute to biodiversity conservation from a global perspective, we have implemented tree planting activities in Thailand, Vietnam, and Malaysia. Currently, at the Fujitsu Group Malaysia Eco Forest Park, we continuously call for volunteers to assure that the saplings planted grow into a tropical rainforest and we also perform supplementary plantings and maintenance.

Since FY 2010, we have implemented eco tours to study biodiversity while observing the actual condition of the

rainforest, making the park not just a place for tropical rainforest restoration activities, but also a place for education. In FY 2010, 30 Fujitsu Group employees and family members and 19 employees of local Fujitsu Group companies, experienced forest planting and forest maintenance and also took study tours of primary forests and mangrove forests.



An eco tour in progress

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## **Environmental Contributions to Society**

We actively promote environmental contribution activities at all Fujitsu sites, both domestic and overseas, and aim for coexistence with both the international society and local communities.

## Our Basic Approach

All employees of the Fujitsu Group recognize the importance of the global environment and, to assure that the next generation inherits a beautiful planet-wide environment, they contribute to their local community through activities based on the following three pillars: regional contributions, nature conservation and environmental education.

## Regional Contributions

To maintain local environments and to provide pleasing environments for local residents, we implement regional contribution activities, such as cleanup activities and planting activities not only at our offices, stores, and plants throughout Japan but at our overseas sites.

## Coastal Cleanup, Fujitsu Broad Solution & Consulting, Inc.

Since a large amount of junk washes up on the Senbonhama seashore, a scenic area in Numazu City, Shizuoka Prefecture, we made "Having fun while cleaning up the coast on the Senbonhama seashore and having fun while thinking about the environment" a theme at the Fujitsu BSC Mishima Development Center and have held seashore cleanup events every year since 2001.

This effort was held on the third Sunday of June 2010, and about 50 people, including employees and their families, attended.

## Coastal Cleanup in Hong Kong (Fujitsu Hong Kong Ltd.)

To protect the habitat of the endangered Chinese white dolphin (Sousa chinensis), eight employees of Fujitsu Hong Kong Ltd. participated in a cleanup activity of the seashore near the Hong Kong International Airport. We collected about 50 bags (500 kg) of plastic refuse.

## Nature Conservation

We are working on farmland maintenance, forest planting and similar activities to promote the maintenance and recovery of biodiversity and to defend nearby natural environments.

## Popularization of Biodiversity Through Agricultural Work

We participate in the Yamanashi Corporate Farm Building System, which is promoted by Yamanashi Prefecture, with employees assisting as volunteers in the agricultural work of grape farming through to harvesting. Our aim is to have participants learn how appropriate management of agricultural land conserves biodiversity and to deepen their understanding of this while enjoying the experience of agricultural work.

This activity started in March 2010 in one part of the farm run by Yumekyo Wine Farm in Koshu City, an effort we called the Fujitsu GP2020\* Wine Farm. In it, a group of 107 employees and family members visited the farm three times and performed the vine training, placing paper covers over the ripening bunches, and helped in harvesting operations. Using the grapes that so many employees had assisted with, we completed 300 bottles of Fujitsu GP2020 wine.

\* GP2020: an abbreviation for Green Policy 2020, the Fujitsu Group's medium-term environmental vision.



Environmental Protection Efforts Through a Golf Event – Ecosystem Survey at the Tournament Site

We carried out an ecosystem survey at the Tokyu Seven Hundred Club, where the Fujitsu Ladies golf tournament is held, and identified many plants and animals that are on the Ministry of the Environment's "Red List." The effort made it clear that this golf course contributes to the environment as a place where wild plants and animals can live and grow.



Pursuing internal reforms



An *Epipogium* orchid Ministry of the Environment: Near Threatened

*Lefua echigonia* (a small catfish, like fish) Ministry of the Environment: Endangered

### Forest Planting Activity at the Atsugi Research Laboratory

In June 2010, we held a memorial tree-planting meeting at the Atsugi Research Laboratory and invited Mr. Akira Miyawaki, a leading botanist, to attend.

We planted 80 seedlings based on potential natural vegetation and collected acorns from the three main types of tree, *Castanopsis, Machilus thunbergii*, and oak, and started raising them.

## Environmental Education Activities

The Fujitsu Group visits schools to give lessons, in order to make local adults and children aware of the importance of the environment. In FY 2010, we gave lessons in 56 locations, including elementary schools, junior high schools and community centers, for around 3,400 people, in which we presented the "PC 3R" exercise (in which students learn about 3R while dismantling a PC) and the My Earth card game (in which students study global environmental problems).

Also, to respond to the demand for more of these lessons, we held an instructor development course in FY 2010 in which a further 40 Fujitsu Group employees learned how to deliver the lessons. As of April 2011, 85 instructors are providing these environmental lessons at locations throughout Japan.

#### On-Site Environmental Classes that Use Fujitsu's Latest Technology

We started a new on-site environmental class for elementary school students in the sixth grade that encourages energy saving by using the Fujitsu smart power socket with built-in power sensor (see page 60) that was announced in April 2011.

The program consists of teaching the students that electricity is wasted when it is converted and that it is important to eliminate waste, and having them think about saving energy when using a PC as a familiar example. This class was developed when we participated in an education support project using ordinary citizens as teachers. The project was sponsored by Japan's Ministry of Economy, Trade and Industry.



The scene at an on-site environmental class: Measuring power consumption using a smart power socket

\* See pages 86 to 89 for more information on our efforts related to activities that contribute to society in general.

## **Environmental Management**

We are continuously working to improve our ISO 14001-based environmental management system and to promote group-wide environmental management.

## Fujitsu Group's Environmental Management

We have constructed an environmental management system (EMS) based on the ISO 14001 international standard and are promoting environmental improvement activities across the group. After acquiring ISO 14001 certification for our Japanese consolidated subsidiaries at the end of FY 2004, we expanded this effort to include our overseas subsidiaries and acquired global integrated certification in FY 2005.

By constructing an EMS along with a supply chain spreading across the globe, we have further strengthened our global governance. This also allows us to promote even more efficient and highly effective environmental activities; not only grasping our status of achievement of the Fujitsu Group Environmental Protection Program (Stage VI), but also collecting a wide variety of information from all Group companies such as legal compliance emergency response and environmental communication activities.

## **EMS Implementation and Operational Status**

We have, as of the end of FY 2010, acquired global integrated ISO 14001 certification for a total of 91 companies, including 12 overseas Group companies. In addition, our 25 overseas companies which are not production base sites are constructing and operating an EMS in line with Fujitsu Group environmental policies. In this way, we have established an environmental management structure across the whole group.

Fujitsu establishes EMS based on a matrix structure composed of a "line program" which promotes activities associated with ownbusiness features and a "site program" which promote activities to tackle site-based issues. This ensures rapid response to top management's decision-making.

## Environmental Promotion Structure

The final decisions on environmental management are taken at meetings of the Management Council, chaired by the president. Fujitsu has two directly controlled organizations under the Management Council. One is the Environmental Committee, which reports to the Management Council and controls a wide variety of discussions related to improvements in the Environmental Protection Program, EMS systems and so forth. The other one is the Low Carbon Committee, which is made up of executives from business groups and studies companywide policies such as emissions reductions associated with business activities for global warming prevention.

The Environmental Committee sets up subcommittees to handle specific environmental issues by people from across business groups and units. In FY 2010, we inaugurated the Leading-Edge Green R&D Committee as a new subcommittee to strengthen R&D on revolutionary green ICT that will contribute to achieving a low-carbon society. This new committee promotes the development of leading-edge technologies that will boost the efficiency of ICT products and improve the environmental load reduction effects of solutions. The Environmental Committee's deliberations are shared with the whole group and we have created a Global Environment Management Working Group (WG) under the Green Management Committee as an organization to strengthen our EMS activities through promoting an understanding of the results of the committee to encourage proactive actions. In the Global Environment Management WG, we assemble people from across the various business groups and inform them of items that we request be handled by the various divisions and group companies to unify our global information sharing.

### Structure for Environmental Activities



## Promoting the Fujitsu Group Environmental Protection Program (Stage VI) Globally

In FY 2010, as the first year of the Fujitsu Group Environmental Protection Program, we announced the program through our lines, sites and factories thoroughly. In addition, we held joint briefing

sessions for environmental management controllers from group companies at eleven locations in Japan. We also created opportunities overseas to explain the program directly to local managers and environmental supervisors from



A Briefing in Europe

29 companies in four areas (the Americas, Asia/Pacific, China, and Europe) In the sessions we communicate all targets of the program while emphasizing the need to benefit customers and society, pursue internal reforms and conserve biodiversity.

In addition to promoting the Environmental Protection Program, by having each company make an effort to enhance the Fujitsu Group integrated environmental management system, Fujitsu strengthens its global environmental management system.

## **Environmental Management**

## Continuous Improvements to the Environmental Management System

#### Constructing Smart EMS

Fujitsu has developed original environmental management tools such as Global Environment Database System and ISO 14001 Green Management System. The Global Environment Database System enables us to consolidate a wide variety of information such as plan, performance and measures of environmental load. And ISO 14001 Green Management System consolidates risk and environmental information such as compliance to enhance and visualize our environmental management. Also, we use Join Meeting\* for remote communication in EMS operation.

\* Join Meeting: A web-based conferencing system

#### Efforts to Improve Environmental Performance

We have been working on creating a system to evaluate the status of target achievement, compliance and operational management to improve our environmental performance at factories.

We continuously make efforts to strengthen environmental governance by promoting the Environmental Protection Program (Stage VI), adopting ICT for smart EMS construction, and forming systems to improve environmental performance.

#### Implementing Environmental Audits

## Internal Audit Implementation and Results

Internal audits are directed by the Corporate Internal Audit Unit, which is unaffiliated with any line organization to ensure that our internal audits are fully objective and independent. The Corporate Internal Audit Unit allocates internal auditors who belong to Fujitsu or Fujitsu Group companies.

In FY 2010, we internally audited factories, offices, and other facilities at 484 locations both in Japan and overseas from July 2010 to January 2011.

For this audit, we scrutinized the trends and results with the FY 2009 internal audit and the external audit and found three major points to be focused on: (1) verification of compliance, (2) verification of the status of efforts for our Environmental Protection Program (Stage VI), and (3) verification of the status of human resources development. Also, we continuously implement mutual audits between different sales and marketing divisions, a program we have been working on since FY 2009. This promotes invigoration by reflecting other division's findings on our own activities.

As a result of these internal audits, we discovered 409 indicated matters, of which five were classified as major, 35 as minor, and 369 were observations.

One of the major matters was a serious flaw in the succession of persons in charge. About 60% of all matters arose from compliance evaluation, objectives, targets and programs, and operational control.

Operational control at subcontracting and maintenance companies was found to be inadequate. We are implementing control measures in our 2011 internal audit.

### **External Audit and Results**

FY 2010 an external audit was carried out from August 2010 through January 2011. In Japan, we were audited by the Japan Audit and Certification Organization for Environment and Quality (JACO). JACO made two comments that cover group-wide activities. In addition, JACO pointed out two minor matters and made 79 observations for individual Group companies. One of the targets of the Fujitsu Group Environmental Protection Program was not well recognized. Outside Japan, we were audited by Stiftelsen Det Norske Veritas (DNV). DNV identified no matters for the Fujitsu Group as a whole, but they identified 18 minor matters and 43 observations. Some of them were inadequacies with respect to specific laws and regulations and inadequacies with respect to internal auditing. We have completed remedying these matters as of the end of FY 2010. We shared the findings throughout the Group and are confirming the status of these matters in the FY 2011 internal audit.

We started discussions with audit organizations in September 2008 about the introduction of performance evaluation (ISO 14031) in our internal audit to improve the quality of our environmental activities. During FY 2010, we established evaluation methods and will implement them, mainly in factories, starting in FY 2011.

#### Status of Environmental Compliance

While the Fujitsu Group committed no major violations of environmental laws and caused no accidents that had any major impact on the environment in FY 2010, there were 15 events in which laws were violated and our own standards were not met and delays in appointing a person to be in charge. Most of these were inadequacies in operating management procedure or documentation, such as (1) water quality standard values being exceeded (temporary BOD\* excess in factory effluents), (2) insufficient verification of items associated with solid waste processing, or (3) delays in setting an assignee (delays in reporting an assignment).

At the same time as strengthening our reeducation efforts across the whole Group, in moving forward to prevent reoccurrences, we will aim at thorough reporting in constructing new waste processing systems at office sites.

\* BOD: Biochemical oxygen demand.

## Internal Education and Enlightenment Activities Our Environmental Education System

To ensure that our environmental activities take firm root, the Fujitsu Group believes it essential to inculcate and raise the environmental awareness of each and every employee to a point where it links to actual practice. To this end, the Group has been carrying out environmental education and enlightenment training since 1995, based on the system described below.

In addition to having all of our employees undertake environmental e-learning once every three years to acquire a basic understanding of environmental issues, environmental education also forms a part of the general training given to new entrants when they join the company and to ordinary employees, middle managers and senior executives whenever they are promoted. On top of this, customized environmental training is also delivered to individual areas of the business such as sales, systems engineering (SE), design, quality assurance and production. We are implementing facilities management education and internal auditor education as professional education for employees in charge of work related to the environment.

#### Fujitsu's Environmental Education System

New entrants	Ordinary employees	Middle managers	Senior executives					
Environmental e-learning (triennial)								
Environmental Leader Course (biannual)								
Function-specific train	Function-specific training (Sales, SE, Design, Production) (triennial)							
Level-specific training (annual)	Level-specific training (annual)	Level-specific training (annual)	Level-specific training (ad-hoc)					
Environment Month (lectures, seminars, workshops, etc.) (annual)								
Information provided via intranet (updated as required)								
Environmental awareness survey (annual)								

\* See page 75 for details of our efforts in human resources development overall.

#### Implementing Environmental e-Learning

Once every three years, we implement an environmental e-learning program for all Fujitsu Group employees. This program is aimed at publicizing, understanding, and implementing the Fujitsu Group Environmental Protection Program and to carry out environmental protection activities that conform to ISO 14001.

In FY 2010, we implemented an environmental e-learning program whose main theme was informing people of the Fujitsu Group Environmental Protection Program (Stage VI), which started in FY 2010, and continuation of ISO 14001 certification.



Environmental e-learning screen

#### Training Workshop for Environmental Leaders

We hold workshops for environmental leaders from each site to foster corporate abilities and know-how. In FY 2010, the conservation of biodiversity was the theme, and the participants brainstormed on what biodiversity conservation activities they themselves should work on.

In April 2010, we held a two-day/one-night training workshop for supervisors at Nakatosa Town in Kochi Prefecture, where the Fujitsu Group Nakatosa Kuroshio Forest is located, for those in charge of biodiversity conservation and enlightenment activities at branches and group companies. This workshop increased the participants' depth of understanding of biodiversity through river water quality surveys and other exercises.

In September 2010, we also held a supervisors workshop at Furano City in Hokkaido Prefecture. At this workshop, we carried out a forest recovery activity in Hokkaido's vast outdoors and implemented an environmental education program called Furano Nature School for participants to experience nature with all their senses and think deeply about the environment. In addition to studying at this environmental education facility, they participated in a tree-planting effort.





River water quality survey activity

Furano Nature School environmental education program

## In-House Award Scheme Environmental Contribution Award and Environment Contest

To raise the environmental awareness of employees in all Fujitsu Group companies, we have operated an Environmental Contribution Awards scheme and an Environmental Contest (with a photo division and an eco-life division), open to all employees, every year since 1995. Since FY 2002, Fujitsu's president has presented the top Environmental Contribution Award at the company founding anniversary celebration held in June every year.

## Unique Award System in the Fujitsu Solutions Business Group

In FY 2008 the Fujitsu Solutions Business Group independently established an awards scheme to help even more customers utilize our outstanding environmental solutions. Of these, the Special Environmental Award, which is given to organizations that perform outstanding activities, is awarded at the Solutions Sales Promotion Meeting, held in April each year. Priority **2** Protecting the Global Environment

Pursuing internal reforms (Conserving biodiversity)

## **Environmental Communication**

At the same time as working to achieve bidirectional communication with all our stakeholders including overseas stakeholders, we aim at strengthening our environmental management through participation in external groups.

## Promoting Environmental Communication Domestically and Overseas

We recognize the importance of communication with our stakeholders and take a wide range of opportunities for proactive communication, including issuing social and environmental responsibility reports, disclosing information on our website, conducting advertising campaigns, and exhibiting at exhibitions and trade shows in Japan and overseas. We also work to improve our daily environmental protection activities through bidirectional communication.





International Greentech and Eco Products Exhibition and Conference Malaysia (IGEM) 2010 (Kuala Lumpur, Malaysia)

Eco Products 2010, Tokyo

#### Main Conventions in which Fujitsu Participated in FY 2010

Convention	Location	Date	
Japan			
N-expo 2010 Tokyo	Токуо	May 2010	
Interop TOKYO 2010	Makuhari	June 2010	
Hamamatsu Environmental Technology Convention	Hamamatsu, Shizuoka	July 2010	
The Best 100 Surprising Ecological Items of 2010	Kyoto and Tokyo	August 2010	
Eco-Life Yamagata	Yamagata	October 2010	
CEATEC JAPAN 2010	Makuhari	October 2010	
Ishikawa Dream Future Expo	Kanazawa	October 2010	
Iwate Environmental Kingdom	Morioka	November 2010	
Eco Products 2010	Токуо	December 2010	
Kawasaki International Eco-Tech Fair 2011	Kawasaki	February 2011	
Overseas			
International Greentech & Eco Products Exhibition & Conference Malaysia 2010	Malaysia	October 2010	
7th Eco-products International Fair	India	February 2011	

## Promoting Environmental Management Through External Groups

We participate in international external groups and promote international standardization of products and services that contribute to environmental protection. At the same time as improving the international competitiveness of Fujitsu Group products and services and increasing our business opportunities, these efforts also aim at strengthening our environmental management.

#### Helping to Establish Global Standards

We are promoting standardization for methods for evaluating environmental burden reduction by the use of ICT solutions through our participation in the International Telecommunication Union (ITU), the ICT for Energy Efficiency Forum (ICT4EE), and the Green IT Promotion Council. Our aim is to see standardization encourage the widespread adoption of Green ICT and for this to lead to reduced environmental burdens globally.

In FY 2010, we submitted to the ITU-T\* working group on ICT and climate change the results of the Ministry of Internal Affairs and Communications' FY 2009 "data center experimental demonstration addressing the characteristics of 'cold spots,' regions characterized by lower ambient temperatures," which was positioned as an effort promoting ICT to achieve a lowcarbon society, and we incorporated our data center best practices in that recommendation.

\* ITU-T: The Telecommunication Standardization Sector. ITU-T is in charge of standardization measures in the communications field, in the International Telecommunication Union. If a new standard is recognized, it is published as an "ITU-T Recommendation."



Award	Date	Sponsor	Reason for Award
ITU-AJ Awards International Activities Encouragement Award	May 2010	ITU Association of Japan	Working towards agreement within Japan, and promoting the Japanese proposal to the ITU concerning ICT and environment change
Japan Electronics and Information Technology Industries Association President's Award	May 2010	Japan Electronics and Information Technology Industries Association	Efforts on international standardization activities in the environmentally conscious design area and contributions to strengthening Japan's international competitiveness
Information Technology Award Achievement Award	June 2010	Telecommunication Technology Committee (TTC)	Promotion of upstream activities related to ICT and climate change
Green IT Award 2010 The Minister of Economy, Trade and Industry Award	October 2010	Green IT Promotion Council	Semiconductor laser using quantum dots that achieves significant energy savings in $\Pi$ equipment
12th Green Purchasing Award Grand Prize	October 2010	Green Purchasing Network (GNP)	Efforts to conserve biodiversity in the Fujitsu Group Procurement Division
The Green Grid Most Improved Data Center Energy Efficiency Award Performance Award	October 2010	The Green Grid, Japan office/DatacenterDynamics	Working group on saving energy and continuous energy trend monitoring for data centers
2010 Environment Minister's Award to Distinguished Organization of Merit in Promoting the Creation of a Sustainable Society	November 2010	Ministry of the Environment	Establishing medium-term goals for reducing the amount of solid waste emitted from business sites, promoting achievement of those goals in a planned way, and achieving significant reductions
7th Life Cycle Assessment Society of Japan Awards Incentive Award	December 2010	Life Cycle Assessment Society of Japan (JLCA)	Implementation of LCA in product development and production activities
2010 Minister of the Environment Award for the Prevention of Global Warming Technology Introduction and Diffusion	December 2010	Ministry of the Environment	Modal shift based transportation CO <sup>2</sup> emissions reduction activities/ Significant reduction of energy usage in ICT equipment by building private clouds at leading-edge universities
Low CO <sub>2</sub> Kawasaki Pilot Brand '10	February 2011	Kawasaki City	SPARC Enterprise M Series/Facility Cube

#### Outside Awards Received by the Fujitsu Group and its Employees in FY 2010

## Priorities 3–4 Embracing Diversity and Developing Human Resources

Fujitsu will promote diversity in its human resources, irrespective of nationality, gender, age, or disability, to enable individuals to grow with the company.

Fujitsu will also lead the way in cultivating employees who, from a global perspective, are pioneers in contributing to the advancement of society.



Employees feeling proud of working for Fujitsu

# Highlights in 2010

## Cultivating Global Leaders Who Ask "What is Good for Society?" and Seek the Common Good

The world faces a daunting mountain of problems, from financial crises, through environmental threats to burgeoning populations and limited supplies of food. Companies that seek continuing growth therefore need not only a strategy for their own business but also a management that addresses the global issues of sustainability for society, humankind and the planet. The Fujitsu Group asks "What is good for society?" where the keyword is the common good achievable by cultivating business leaders who combine the pursuit of corporate strategy with the creation of social values.

## We Founded the Global Knowledge Institute to Develop Human Resources for Knowledge Management, and Promoted the Global Leadership Program.

The decisive factor for corporate competitiveness will dramatically shift away from "efficient manufacturing" towards "creation of new value by marshalling knowledge" as the Internet advances. Fujitsu foresaw this new era, and founded the Global Knowledge Institute (GKI) in 1999. Ever since, its activities have been directed at developing global leaders and promoting knowledge management as the lynchpin of our knowledge strategy.

Promoting knowledge management aims to maximize corporate value and to provide products and services with high knowledge content based on the strategic sharing and active use of accumulated knowledge. In developing global leaders, the main strategic aim is to educate those who will lead in this global knowledge competition. We have been systematically implementing this training program both within Japan and worldwide since 2000.

## We Develop Business Leaders Who Can Create Social Value While Executing Management Strategy.

No business today can consider profits without taking into account the sustainability of society, humankind and the global environment. As long as the pace of technological innovation and globalization continues to accelerate, companies will have to consider issues, make decisions and take actions on a global scale with greater agility. If we are to continue responding to our customers' expectations under such rapidly changing circumstances, every business location must

> have business leaders with the incisive judgment and actions to respond rapidly to all eventualities.
The Fujitsu Group calls the essential quality that these leaders must possess Practical Wisdom, and our priority has been to develop such leaders. "Practical Wisdom is the wisdom that is based on a sense of the Common Good – what will be good for society. It will, in any specific and individual context, make it possible for a person to give insights into the meaning of interrelationships and values and to make the best decision" (Ikujiro Nonaka, Management Guru, 1935–). The Fujitsu Group sees Practical Wisdom as the basic prerequisite for leaders deploying a global business.

Our training program for new leaders presupposes the necessary basic management skills and puts the priority on Practical Wisdom. The program focuses on both subjective and objective view points, the ability to create "Ba,"\* and humanity, seeking to identify essential qualities through dialogue, knowledge and experiences. Through lectures by global authorities and dialogues with active business leaders, the participants study the basic theory of knowledge creation and Practical Wisdom in leadership, and master the ability through practical exercises. In order to secure diversity in our employees and to promote globalization, joint sessions are held with participants in various overseas leadership development programs, such as the Global Organization Leadership Development Program (GOLD), and joint workshops with overseas business schools, among other initiatives to link and advance global business leadership training programs carried out at our locations around the world. By March 2011, a total of 614 employees had participated in this program.



System of Leadership Development Programs



#### Stakeholder's Voice

# The Fujitsu Group business leaders are required to recognize and be committed to the common good as citizens of the world.

We are well aware of the issues that test individual abilities when dramatic changes are taking place in the social environment. At times like these, true value is only created by leaders who read the context of dynamic interrelationships, think things through without losing momentum, then immediately reach a decision and take action.

The same is true for the business management since the environment is changing day by day. From a global perspective, we face dizzying changes, and business management calls for leaders who can decide and act on the spot. And surely this will only be possible if they have firm convictions of what is the common good. The Group has inherited many valuable things like the expression of the vision "Turning dreams into reality" or the Japan–America Institute of Management Science (JAIMS) – an attempt to bridge East and West through education – and has implemented it in many different ways. In the future, this vision will become even more important and central to the development of business management leadership resources.



#### Ikujiro Nonaka

Professor Emeritus of Hitotsubashi University, Chairman of the Economic Research Center, Fujitsu Research Institute, and concurrently Head of the Research Center for Practical Wisdom

# **Diversity and Inclusion**

Fujitsu is engaged in a range of activities and implementing systems to create workplaces in which employees recognize each other and all employees can exhibit their full abilities and work energetically.

#### Diversity: Understanding It and Working Towards It

#### **Embracing Diversity and Inclusion**

Based on the statement "We respect diversity and support individual growth" in the Corporate Values of the Fujitsu Way, in 2008 we set up the Diversity Promotion Office as an organization to promote respect for diversity throughout the company. The Diversity Promotion Office's vision for Fujitsu is:

- Improving individual growth and job satisfaction That all employees will have mutual respect for one another, that each will demonstrate their own personal added value, and that everyone will contribute to the organization.
- Improving corporate competitiveness and growth That we will continue to create new knowledge and technologies through free and active discussions from a variety of viewpoints.

With these two objectives in mind, we are aiming to create workplaces where people can work energetically, create new values, realize coexistence and mutual prosperity with society, and develop Fujitsu into an even better company.

#### Efforts at Promoting Diversity

To review the status of its diversity promotion, Fujitsu has been carrying out an annual survey of all corporate officers, employees and temporary staff. Based on the results of this survey we are focusing on the following three measures: (1) a reform of mindset and culture in the organization; (2) support for individual success; and (3) promotion of diverse styles of work and improvements to productivity and individual satisfaction.

From FY 2008 through FY 2010, as our first medium-term plan, Fujitsu worked to create policies that foster awareness and understanding of diversity so as to create a basis for diversity promotion. In addition to publishing the results of questionnaires and interviews with top management in internal publications, we have introduced role models and various efforts on our Diversity Promotion Office website (in both Japanese and English). We

also held a variety of company events, including companywide diversity promotion forums, various networking events, and forums with individual themes, which were well attended by our employees.



We implement diversity-related Companywide diversity promotion forums at various levels, including our

training in our training programs at various levels, including our new employee training and workplace management training for managers. Additionally, we study policies and resolve related issues in diversity promotion focus groups held by managerial staff volunteers from a variety of workplaces. We also hold seminars on diversity management for managers based on the results of those focus groups. Furthermore, from January to April 2011, we implemented an e-learning program called "Creating a workplace that inspires all employees to work energetically" aimed at handson experience in the workplace related to diversity promotion for all executives, employees, and temporary staff.

In addition to past and ongoing activities, with understanding and achievement of diversity as the goal, we are working on policies aimed at resolution of individual problems that came to light through earlier activities, setting goals, and implementing solutions in the workplace as our second medium-term plan for the period from FY 2011 through FY 2013. In particular, we are looking into workplace deployment of policies by managers representing the diversity promotion headquarters, setting target values for female employee activities and providing support, and deployment of these efforts to Group companies in Japan.

# Support for Individual Activities and Promotion of a Work/Life Balance

#### Creating a Workplace Environment Where Female Employees Can Participate Actively

As an immediate high-priority issue, Fujitsu is setting quantitative targets to reliably create significant numbers of female managers while promoting activities to achieve these targets.

We are selecting people from the leadership level of our female employees and, in coordination with the workplace, the management level, personnel, and the Diversity Promotion Office, establishing and implementing training programs appropriate for these individuals as candidates for promotion. For other levels of employees, we also hold workshops and events to review their careers and envisage the formation of their future careers. We are also planning and implementing networking events with other companies and different businesses as opportunities to receive fresh encouragement from others. Furthermore, to help our female employees improve their self esteem and acquire job satisfaction, we are implementing forums for all our female employees and giving publicity to role models. Starting in FY 2011, as a new effort, we are setting up "diversity mentors" who will support personal and career development of our female employees from a different standpoint from that of their supervisors.

Note that we use the same recruitment standards regardless of gender with respect to promotion of managers.



#### Trends in Women Managers (Fujitsu Limited)

#### Employment of People with Disabilities and Creating Workplaces Where They Can Play an Active Role

Fujitsu actively employs people with disabilities based on the concept of "consider carefully, but welcome unreservedly" and many people with disabilities are working in a wide variety of positions, including as researchers, developers, sales staff, and systems engineers.

When hiring new employees, in addition to holding our own seminars, Fujitsu strives to make it possible for many people with disabilities to interview with Fujitsu by participating in employment events held by commercial employment companies. Fujitsu also provides actual cases of people with disabilities working at Fujitsu in pamphlets and on web pages. In determining workplace assignments, we work together with the workplace to bring out the best of the individual's abilities, and after the assignment we hold interviews. Thus, we implement long-term follow up from human resource development until the employee is established. In addition, Fujitsu holds forums on the creation of networks of disabled employees and the creation of workplaces where everyone can produce results regardless of any handicap they may have. Moreover, we publicize on our intranet role models and manuals for workplaces that can accept the disabled.

Trend in Employment Rate of People with Disabilities (Fujitsu Limited)



#### Promoting a Work/Life Balance

 Arranging support environments for compatibility between work, pregnancy, child care, and nursing care needs
 Fujitsu is committed to providing a work environment that is easy to work in, allows employees not only to work but also to raise

children or care for family members, and supports a diverse range of work styles so that all our employees can fulfill their potential. In accordance with the Law for Measures to Support the

Development of the Next Generation, we have implemented

our action plans\*. In addition, we provide babysitter subsidies, paid leave to honor long-term service as well as volunteer activities, and we have established and are operating in-house childcare facilities at some of our sites. Furthermore, to assist employees who are taking child care leave to return to the workplace and help them build networks, we are implementing training for employees accompanied by their children.



Logo mark stipulated by the Minister of Health, Labour, and Welfare according to Article 14, Item 1 of Japan's Law for Measures to Support the Development of the Next Generation (Next–generation approval mark)

### Number of Employees Using the Care Leave Support System (FY 2010, Fujitsu Limited)

(FY 2010, Fujitsu Limited) (People)					
System	Total	Men	Women		
Child care leave*	116	4	112		
Family care leave	14	6	8		
Reduced working hours (child care)	194	5	189		
Reduced working hours (family care)	1	0	1		
Paternity leave	527	527	_		

<sup>t</sup> The percentage of employees who return to the workplace after taking child care leave is nearly 100%, for both men and women.

Moving forward, in addition to continuing to improve workplace conditions, we will be reviewing the ways we work and proceeding in line with the plan.

\* Action Plan: Based on the Minister of Health, Labour and Welfare's approval of our first action plan (April 1, 2005 to March 31, 2007) and our second (April 1, 2007 to March 31, 2010), we have established and are now implementing our third action plan (April 1, 2010 to March 31, 2013).

#### • Forums that aim at reforming the way we work

We are implementing a variety of forums to improve both productivity and individual satisfaction based on the many different ways people work with the theme "Reforming the Way We Work."

Although we focused on understanding differences in ideas through FY 2009, in the FY 2010 forums, we paired managers with employees and implemented training based on concrete, practical measures.

#### Introducing a work from home system

So that each and every one of our employees can work efficiently to create even higher added value, in addition to the existing tele-work system (both the satellite office and mobile work types), Fujitsu set up a work from home system as of April 2010.

#### **Recruitment of Global Talent**

The Fujitsu Group, including its Group companies within Japan, recognizes the progress of business globalization and promotes global recruiting.

#### • Support for foreign employees in Japan

Fujitsu started the "Integr8" support project in 2007 to allow employees from abroad to display their true abilities. As part of our efforts to form a community that can connect foreign and Japanese employees, Fujitsu invited instructors from both within and outside of Fujitsu and we heard lectures on topics of concern to foreign employees, such as the Fujitsu Group's globalization strategies. In this and other ways, Fujitsu supports the formation of interpersonal networks and communication. In FY 2010, we held three such lectures. This community has now exceeded 300 persons, both foreign and Japanese nationals, and is leading to autonomous, proactive activities that support the workplace. In addition to providing a website on our intranet that includes the rules and regulations that must be followed while working at Fujitsu, and other procedures necessary for living in Japan, we are also moving forward with the creation of a system that can respond to questions and needs for counseling from our employees in English.

# Creating a Workplace Environment in which Older Workers Can Thrive

Fujitsu has established a post-retirement rehiring system aimed at providing opportunities to retirees who desire to continue work after the retirement age of 60 and who want to make the best use of their abilities.

# Developing Human Resources for Their Contribution to Society and the Planet

We consider the development of human resources and employee education as key management priorities, and are working to develop employees who can support a truly global ICT company.

# Developing Human Resources with a Global Viewpoint

One point of the Fujitsu Group's growth strategy is to accelerate the process of true globalization and to be a truly global ICT company. In order to develop global human resources who can carry out this strategy, we created a global business leader training program that carries out concentrated intellectual polishing of candidates for the next generation of global business leaders. Furthermore, we have established a wide range of training and human resource development systems.

In particular, in creating these wide-ranging measures, we are studying them from diverse standpoints and methods. The participants are selected from a broad range of occupation types such as junior staff, experienced managers, Japanese employees working abroad, and foreign employees working in Japan. Domestic programs are coordinated with those of various locations across the globe. Classroom lectures are combined with OJT.

#### Learning Language and Communication to Improve Literacy and Minds

Within Japan, we continue to work to improve our employees' language abilities, focusing on English. Our initial aim with new employees is for all of them to achieve a 600 TOEIC score. Employees not only study language intensively but also learn methods of language study that will lead to continuing improvement in ability through personal development. In addition, in order to develop global viewpoints, a wide range of subjects, such as acceptance of other cultures, and communication and management skills are incorporated in the programs.

Furthermore, we offer support programs for foreign employees working in Japan, to improve their Japanese language capability and daily living. These programs support not only the employees themselves but also their supervisors and colleagues.

### New Employees Become Global Human Resources through Experience

We operate a foreign rotation system (Global Exchange Program) for younger employees, which started in FY 2008. In this system, younger employees are sent overseas for a period of two to five years. In FY 2010 we implemented our "Global Competency Development Program" targeted at younger employees in their twenties. This consists of three categories: global mindset, communication capability development, and short-term overseas experience. About 100 employees participated in this program.

As a new initiative in FY 2011, we have completed preparations to start a "Global Practical Wisdom Leadership Development Program" for young managers in which participants will learn global leadership from direct experience, interactions with other cultures, and actual models. In this program, we are aiming to actuate the ability to compete on the global stage through experiences that expand the participants' capacity. This program consists of a three months concentrated training and a 1.5-year apprenticeship model.

#### Fujitsu University for HR Development

Drawing together the collective knowledge and expertise of the Fujitsu Group, Fujitsu University was established in 2002 to carry out world-class human resources development to lead the Fujitsu Group and our industry.

In support of these goals, we have implemented systematic education programs to develop high-level human resources based on the following pillars: (1) developing business leaders who can exhibit global business leadership; (2) strengthening the baseline (the values and skills) of our people so that they can understand our corporate vision and act based on those ideals; (3) training professionals who are able to provide customers with a high degree of added value; and (4) "work and life design support" that supports a wide range of individual needs.

In the future, Fujitsu will coordinate proactively with universities, other external educational organizations, and NPOs that provide high-level ICT human-resource development to raise the Fujitsu Group's presence to even higher levels.

#### Fujitsu University



#### Fujitsu NetCampus

This is an online education and training platform open to all of our approximately 170,000 employees in 206 Group companies in 30 countries around the world (as of March 2011). It provides applications/admissions for courses, study materials, testing, questionnaire and other functions. Unified e-learning, which aims at disseminating corporate policies throughout the whole company, is also implemented using this platform.

In FY 2010, we held five of these courses in Japan and one overseas. In FY 2011, we plan to hold a variety of such courses on various themes in cooperation with head offices.

\* Our environmental education program is presented on page 68.

# Approach to Human Rights and Work Practices

In all of our corporate activities, we consider the spirit of respect for human rights to be fundamental. Based on this stance, we promote both human rights enlightenment activities and the creation of a work environment that will satisfy our employees.

#### Efforts Promoting Respect for Human Rights

The shared principles articulated in the Code of Conduct of Fujitsu Way are guidelines for each employee to comply with in conducting daily business operations. Prime among them is "We respect human rights," a principle that underpins all our corporate and individual activities and disciplines the actions of every member of the Group.

In 2006, we stipulated policies for human rights in employment and clarified our Group stance of taking a consistent global approach. We continue to work for equal employment opportunities, respect for human rights, elimination of discrimination, and the abolishment of forced labor and child labor. While we publish these policies on our website, we take every chance for education or enlightenment that will promote understanding and penetration of these policies.

We will, in accordance with our commitment to the UN Global Compact in 2009, continue to move forward with management that places a high priority on human rights.

WEB FUJITSU Guiding Principles of Respect for Human Rights in Employment http://www.fujitsu.com/global/about/responsibility/society/

employees/humanrights/

#### Promoting Human Rights Enlightenment

In the Fujitsu Group, we implement activities to promote human rights awareness through Human Rights Enlightenment Committees. In FY 2010, to strengthen our efforts based on the actual situations in the workplace, we changed our regional human rights enlightenment committees into a new structure in which they are mainly managed by regional workplace representatives. Through this change, the Human Rights Enlightenment Committee stipulates company-wide critical themes for the fiscal year reflecting the workplace situations summarized by the regional committees. The members of these committees aim to instill their themes throughout all divisions and workplaces.

The main activities of the Human Rights Enlightenment Committee consist of taking up a variety of human rights issues, such as discrimination and harassment in the workplace, and implementing human rights enlightenment training for specific hierarchies or for all employees. Furthermore, every year in conjunction with Human Rights Week (in December), we work towards fostering an environment in which everyone – employees and their families – can discuss human rights in the workplace and at home by, for example, putting up posters on preventing sexual harassment, inviting employees to come up with slogans on human rights promotion and rewarding them, and distributing human rights promotional leaflets.

Human Rights Enlightenment Structure



To carry out these human rights enlightenment activities effectively, we also implement compulsory training every year for line managers in the personnel division, which is the promotional division for this effort, and strive to maintain their knowledge and skills as promoters of human rights enlightenment.

To handle requests for consultations from employees, we have established the internal Human Rights Consultation Service and we hold periodic compulsory training sessions so that the service personnel can respond appropriately.

# Striving to Provide Equal Opportunity in Employment and Advancement

# Equal Opportunity in Employment, Evaluation/Treatment, and Promotion of Managers

Together with our employment policy of not discriminating by education, age, gender or other factors, we offer opportunities for promotion once someone has reached a stage commensurate with general competence and performance. We are also strengthening our multifaceted efforts to increase equality of opportunity, including the introduction of a rehiring system for those who leave Fujitsu to raise children or care for infirm or elderly family members, and the proactive promotion of women employees to management positions.

- The percentage of managers at major overseas sites (with some 37,000 employees) is 14.3% (most of whom are hired locally), and of those managers, 19.6% are women.
- In FY 2010, the average length of employment was 19.0 years for men and 16.7 years for women.

#### Communication with Employees

#### Labor Relations

Based on labor-management agreements with the Fujitsu Labor Union, Fujitsu holds discussions about various employment conditions and explains management policies and business conditions to its employees through regular and ad hoc meetings such as the Labor Council or Productivity Council. Furthermore, the collective bargaining rights of the union are stipulated in those labor agreements.

Note that since Fujitsu adopts a union shop system, all ordinary employees are members of the Fujitsu Labor Union.

In Europe, starting in 2000, the European management attends the Employee Representatives' meeting every year, and shares the overall financial conditions of the Fujitsu Group and other issues with them.

#### **Employee Satisfaction Survey**

To gauge the dynamism of an organization and assess the level of employees' satisfaction therein, we have taken a multi-faceted employee satisfaction survey every year since 2004.

In FY 2010, we surveyed some 65,000 employees including those at Group companies. We maintain a high response rate in this survey and achieved 86% this year, and have confirmed that the degree of overall satisfaction increases every year. (The percentage proud to work at Fujitsu was 79.3% in FY 2010.) However, if we look at responses by

### Approach to Human Rights and Work Practices

organization or by hierarchical level, there are differences in satisfaction trends and the issues to be faced vary. Therefore, we feed back the results to each organization after we categorize them, and encourage individual organizations to improve their employees' satisfaction level.

At the same time, we analyze the relationship between employee satisfaction and Company measures and policies so we can improve employee satisfaction throughout the Company. In FY 2010, we added two survey items; "Brand promise penetration (shaping tomorrow with you)" and "diversity promotion," which are company-wide efforts, and analyzed the results, which we will be using. By adding necessary survey items like this, we plan to review our company policies, such as the personnel system, from the standpoint of improving employee satisfaction.

In April 2011, we held a company-wide event, the ES (Employee Survey) Forum, to share practical examples of the employee satisfaction improvement in individual organizations along with knowledge of how leadership should function. Furthermore, from time to time we publish messages from Fujitsu's president on employee satisfaction. Through these efforts, Fujitsu is striving to increase awareness of improving employee satisfaction at all levels, from management to the individual employee.

Thus, Fujitsu is targeting improved employee satisfaction from the standpoints of both individual divisions and the company as a whole based on this employee satisfaction survey.

#### Group Efforts in Overseas Businesses

In April 2010, we took an employee engagement survey of overseas business group managers (some 1,000 persons, in both Japan and overseas). This survey was intended to create work environments that make it both pleasant and worthwhile for employees to work. It focused on the degree of employee proactive commitment (or engagement) to the organization or management and to identify the elements involved in that commitment.

Employees who are highly engaged are proud to be working and make every possible effort for colleagues and customers. Generally, it is thought that in companies where the employees have a high level of engagement, employees work harder than is required and achieve superior business results, productivity, and customer satisfaction.

In response to questions related to engagement, such as "Do you feel motivated to go beyond your formal job responsibilities?" on average 65% of employees in the overseas group responded positively (whereas 23% responded "cannot say" and 12% said "no"). Since results vary and individual elements directly related to engagement differ between groups, each organization creates and implements its own action plan. We evaluated the progress of these action plans continuously over a one-year period to assist us in improving employee engagement in all organizations within the Group.

Results from the recent survey carried out in April 2011 began to come in from June. This year, the survey was a large-scale effort that extended beyond management to all employees and was intended to clarify even further the state of engagement across the whole overseas business group. Furthermore, we are incorporating the engagement index in the evaluation of top management of the Group and thus managements are now evaluated based on the results of the engagement survey for their own organization. TOPICS

#### Workshop Held on Creating an Even Better Labor Environment in China

In China, the labor environment is improving rapidly, first with the enactment of the labor contract act and labor dispute mediation and conciliation act in 2008, then with the publication of the Social Insurance Law in 2010, and now with the moves in 2011 towards making collective bargaining for wages mandatory. At the same time, workers are increasingly aware of their rights.

In this context, the Fujitsu Group in China is striving to create good labor-management relations by making thoroughgoing compliance efforts and providing even better working conditions and environments. As part of this effort, once every six months we hold a workshop at which we assemble personnel managers to share knowledge and create synergy between workplaces. At these workshops, we analyze labor-management relations from a variety of viewpoints through discussions on a various topics with third parties such as specialists from outside Fujitsu or personnel managers from other countries and contribute to implementing concrete measures in each company.

#### Health Management and Occupational Safety and Health

#### Support for Health Management and Maintenance

At the Fujitsu Health Promotion Division, we work to protect and maintain the health of Group employees and their families with the goal of creating a culture and environment in which employees can work in safety and with a sense of well-being.

 From treatment to prevention and health promotion
 Fujitsu is working to provide its health management activities not only to those who need treatment but also to our healthy employees.
 For example, as part of our promotion of preventive care, our health insurance union provides financial assistance for breast cancer screening and brain and lung checkups. Furthermore, we have adopted the latest CT and MRI equipment at the Fujitsu Clinics and are promoting checkups and providing opportunities for medical tests as a company.
 Health support activities

At each Fujitsu business location we have established a health promotion center or a health care center, which is responsible for health consultations and providing counseling for those in need of mental health care.

Our health support policies extend to the family members of our employees and our company-sponsored health checkups are made available to retired employees as well. These activities target not only individuals, but also operation at the organizational level to improve productivity.

#### Efforts to Improve Work Health and Safety

We establish at each business site in Japan a joint management and labor committee that works to improve workplace health and safety. We also perform workplace inspection tours to check for dangerous locations, improve safety, and perform risk assessments.

We promote health and safety education and training that matches the characteristics of each workplace to create a workplace environment in which all our employees can work confidently in safety and comfort.

# Priority 5 Communicating and Collaborating with Stakeholders

As a good corporate citizen, Fujitsu will pursue a thorough understanding of the multiple needs and expectations of its stakeholders and pursue business activities to meet these needs and expectations.



# Highlights in 2010

# A Dialogue with Stakeholders in Which Experts Were Invited to Address Fujitsu's Five Priority Issues

December 16, 2010, Fujitsu published its basic policy on corporate social responsibility, in which communication and collaboration with stakeholders is one of the priority issues.

We took this opportunity to plan the future promotion of various forms of communication with stakeholders, the first of which called on experts in a number of fields to gather and share their opinions on these major issues.

The dialogue began with a presentation by President Yamamoto of his thoughts on how Fujitsu had come up with the basic policy and priority issues for CSR. An additional presentation was made by Etsuro Yamada, President of the Public Relations Unit, giving practical examples of priority issues. Then, after we heard expert opinions on each priority issue, all participants exchanged views. In closing, President Yamamoto expressed his determination to implement management consistent with CSR policy.

Date:	Thursday December 16, 2010				
Place:	Fujitsu Headquarters in Shiodome, Tokyo.				
Experts:	Junko Edahiro				
	Masaharu Okada				
	Keiji Kawahara				
	Kimiko Horii				
Fujitsu:	Masami Yamamoto (President and CEO)				
	Masami Fujita (Corporate Senior Executive Vice President)				
	Atsuhisa Takahashi				
	(Then Head of Corporate Environmental Strategy Unit)				
	Morimasa Ikemoto (President of Fujitsu Way Unit)				
	Etsuro Yamada (President of Public Relations Unit)				
	Kimitaka Kato (President, Fujitsu Design Ltd.)				



#### Junko Edahiro

President of e's Inc. President of the NGO - Japan for Sustainability. She translates, writes, lectures on environmental themes, and sends such information overseas. She served as a member of the Council on Global Warming under the Cabinets of Prime Ministers Fukuda and Aso, and is a visiting researcher at the Research into Artifacts Center for Engineering, the University of Tokyo. Her main translations into Japanese include Al Gore's book An Inconvenient Truth.



#### Keiji Kawahara

Executive Director, International Association for Universal Design. President of KIDStudio Corp. Professor of the Nagoya University of Arts and Sciences Graduate School. He has won many awards in international design competitions and has participated in the planning and development of numerous industrial products that utilize the insights of universal design, including the "Touch Me" watch for the visually handicapped.

#### Providing Opportunities and Security through ICT

- Some of Fujitsu's projects supporting developing nations make wonderful and full use of ICT, for example in offering inexpensive and readily accessible communications services. I would like to see them leading to the solution of social problems in those regions from a long-term perspective, not ending up as field-trials. I would also like to hear from Fujitsu, as a global enterprise based in Japan, a well reasoned opinion on how to solve Japan's own problems such as social disparities and an aging society. (Ms. Edahiro)
- ICT-related services are less subject to restrictive legislation and commercial practices in developing nations, so they are easy to expand. I believe Fujitsu could develop its own CSR activities through social and other businesses by fully utilizing ICT. (Mr. Okada)

#### **Protecting the Global Environment**

 Fujitsu is pursuing various environmental initiatives, but things are moving fast world wide, and many other companies are also engaged in similar activities. It is therefore becoming more and more difficult each year to showcase activities that evoke stakeholders' sympathy.



#### Masaharu Okada

Professor at Kyushu University. Executive Director of the Grameen Creative Lab@Kyushu University. After joining a Japanese communications company he worked in its American and Internet business subsidiaries in Japan, engaging in a wide variety of international business centering around international law. Since 2001 he has been a consultant to venture and entertainment businesses.



#### Kimiko Horii

Former President and Advisor of the GEWEL NPO. After joining Japan Air Lines and then moving on to a foreign-affiliated battery company, where she served as Executive Secretary for the General Manager in Japan and south Korea, she moved to a foreign-affiliated cosmetics company. There, as National Sales Director, she managed 700 salespeople. In 2003, she founded GEWEL (Global Enhancement of Women's Executive Leadership). With the aim of achieving diversity and inclusion, she is active mainly in consulting to promote diversity within companies, in surveying employee awareness, and lecturing.



This is why the last few years have seen what we might call ecological exhaustion, a spreading sense of stagnation, with the activities of the ecologically concerned becoming habitual and some even disengaging from ecology. As Fujitsu has made protecting the global environment a priority issue, I hope Fujitsu will make this the opportunity to effectively convey the significance and the achievement of your efforts to your stakeholders. (Ms. Edahiro)

#### **Embracing Diversity and Developing Human Resources**

 One problem of diversity in Japan is that in many companies, even after they have introduced a new system to promote the active participation of female employees and to improve work–life balance, it often tends to make no headway. I therefore highly value Fujitsu's inclusion of this among its priority issues. To reform corporate culture through the promotion of diversity, a company needs to show acceptance of each individual employee's values. I expect to see Fujitsu's top executives and the management layer addressing this issue in word and deed, and would like Fujitsu, like other visionary companies throughout the world, to give clear messages at international conferences, etc. (Ms. Horii)

#### **Communicating and Collaborating with Stakeholders**

- For a company to advance, it must consider its relationships with many people, including its customers, suppliers and employees. Today, enterprises and their various stakeholders are pooling their wisdom in attempts to address societal problems. Naturally, employees are also important stakeholders, and increasing the satisfaction of different categories of employee will contribute to the greater satisfaction of other stakeholders. I am interested to see which social issues Fujitsu will address through dialogues with its stakeholders. (Mr. Kawahara)
- A social business can be seen as a business that values compassion. I would like to see Fujitsu create new businesses that show its stakeholders a distinctively Japanese compassionate DNA, such as the "waste not, want not" recycling society of Edo (now Tokyo) period, and the "three goods" of Japan's Omi merchants (good for the seller, the buyer and society). (Mr. Okada)

#### The Last Word in Today's Dialogue



Masami Yamamoto President and CEO

Thank you, every one of you, for the valuable opinions you have expressed today. Japan has traditionally seen virtue in unpublicized good works, and the Fujitsu Group has accordingly not aggressively publicized the CSR aspects of its corporate activities. However, both the Group and the world are becoming increasingly globalized, and we owe it to our stakeholders to provide them with accurate sources of information and explanations of the issues we are addressing as we seek to further increase the centripetal force of the Group. This is the thinking behind the brand promise "Shaping tomorrow with you" that we adopted in 2010. The "you" refers to you and all our other stakeholders. The brand promise represents our commitment to society that Fujitsu will, together with all of our stakeholders, envisage and shape one "new tomorrow" after another. Today's stakeholder dialogue forms a part of this process, and we will continue listening to your opinions and providing you with information in the future as we strengthen our ongoing efforts in ways that are true to Fujitsu.

### With Our Customers

We adopt a customer-centric approach and communicate proactively with our customers so that we can grow together as their partner.

#### To Increase Customer Satisfaction

Based on the statement "We seek to be their valued and trusted partner" in the Corporate Values of the Fujitsu Way, all our ideas and actions originate from a customer-centric approach to business. We aim to contribute to the success of our customers and grow together as their valued and trusted partner.

Fast-changing social and economic environments make this a difficult time in which to see far ahead, so we place ourselves in the position of the customer to better and more rapidly understand new requirements and innovate to meet those needs as quickly and accurately as possible. We are aiming for management innovation through using the "Program to Improve the Quality of Management "\* and taking a number of initiatives to form an innovative corporate culture that can keep pace with the changes at our customers'.

#### Promoting Field Innovation with the Customer

Fujitsu incubated "Field Innovation" in 2007 to create a prosperous future along with our customers.

It is important to get back to the starting point, where ICT is seen as only a tool to support people in their work and increase efficiency in their working places. Field Innovation concentrates on the customer's work place to determine the true nature of the issues by visualizing relationships between people, processes, and ICT. This increases the value of using ICT by making full use of theses insights from the workplace.

By making such management issues visible, Field Innovation leads to continuing customer's management innovation in line with the intentions of top management. We have already implemented Field Innovation programs at as many as 300 customers and also continue to use it ourselves within the Fujitsu Group.

Additionally, we have fostered specialists known as Field Innovators. Now, 400 Field Innovators visualize the issues and build consensus with customer at customer's locations to promote innovation. We continue to foster Field Innovators, to strengthen the framework and concentrate their knowledge.

Fujitsu accumulates practical wisdom as the knowledge gained through Field Innovation, then uses it to increase the quality of our activities and provide further value using ICT.

#### Results of Field Innovation Activity (Including Fujitsu Group internal projects)

(Units. Activity)					
	FY 2008	FY 2009	FY 2010		
Results of Activity	129	294	331		



#### The Field Innovation Process

 We insist on rendering all the facts visible
 Field Innovation identifies the target field in which innovation is to be applied and the facts are rendered visible thoroughly using ethnography\*, visualization of PC operations, and the latest technology.

\* Ethnography: A site survey method used in cultural anthropology. In this method, daily life is surveyed from the viewpoint of the subject by actually participating in the life or work being studied.

#### Facts modify attitudes

Issues only become clear when the basic facts are known and mindsets can be reformed. Also, we can aim for agreement on mindset reform through workshops and achieve reforms that take advantage of people's knowledge. Our innovation methodology is threefold — in People, Processes and ICT, where people's mindset, actions and work processes have changed.

#### Ongoing innovation brings an innovative mindset to businesses and organizations

By continuing our innovation methodology in line with customers' top management intentions, we aim to establish powerful companies and organizations that will themselves continue to innovate.

### Operation of the Fujitsu Customer Relations Center and the Fujitsu Contact Line

We established the Fujitsu Customer Relations Center in 2003 to handle inquiries and other problems concerning products and services from customers who are not sure where to address their inquiries. And we have also been providing rapid responses to customers concerning the functions and prices of products before they make their purchases. All such prepurchase telephone inquiries are referred to a single window of the Fujitsu Contact Line, with the telephone number for access published on our corporate website and in catalogs, press releases and advertisements.

The Fujitsu Customer Relations Center and the Contact Line act as a clearing house that links the customer to the best line of communication for answering their inquiries. They not only contribute to increasing customer satisfaction

<sup>\*</sup> The Program to Improve the Quality of Management: This is the framework for customer-centric management excellence modeled on the Malcolm Baldrige National Quality Award of the United States, the *de facto* global standard for management innovation.

by their accelerated responses but also extract customer feedback, which is reported to the departments responsible for development and quality improvements of the related products and services.

Note that when we receive opinions or when something is brought to our attention in the form of a complaint from the customer, the specific content of that feedback or complaint is reported to our executives.





Trends in Inquiries Addressed to the Customer Relations Center (Inquiries) 60,000



#### PC Support Center for Individual Customers

To handle the diversifying needs and environments of our individual customers, Fujitsu has established a system that can provide technical advice and assistance 365 days a year at our Azby Technical Center, which is a major part of the personal products support desk.

WEB Azby Technical Center (in Japanese) http://azby.fmworld.net/support/intro/azby\_tech.html

#### **Examples of Improvements Based on Customer Feedback** Miniaturization of notebook PC AC adapters

In response to customer requests to miniaturize and reduce the weight of notebook PC AC adapters to make them more portable for business trips, we reviewed our internal evaluation standards for selecting AC adapters for greater usability and lower cost.

As a result of this review, we switched from the earlier 80W adapters to 65W ones. We implemented further miniaturization and weight reduction in AC adaptors.

#### Placing Importance on Connecting with Our Customers

#### **Fujitsu Family Association**

The Fujitsu Family Association was founded in 1964 as our user community to help members exchange information and improve each other's skills. As of the end of FY 2010, it had 11 chapters and LS Research Committees throughout Japan with some 3,500 members.

Since there was increasing interest in new technologies such as cloud computing, many networking events, study and research activities were held among the members on those topics in FY 2010 covering how to apply these new technologies to their business, and so on. Also, conferences were held in spring and autumn in Japan, and an overseas seminar in the United States, while six issues of the members' magazine "Family" and occasional issues of "e-Family" (the web version) were published during the year as activities of the main office of the Family Association. The LS Research Committee\* held research section meetings on 16 themes as its research activities on leading-edge management and ICT, and published a summary report. Furthermore, we held seminars and research meetings at 11 local chapters to provide problem solving and practical business support to local members.

\* LS Research Committee: This committee was originally formed as the "Large Systems Research Association" in 1978, which was merged with the Fujitsu Family Association in 2007 with the renewed purpose of carrying out research on leadingedge technologies and leading-edge concepts, and implementing effective utilization of ICT that will contribute to members' growth



#### Fujitsu Family Association (in Japanese) http://jp.fujitsu.com/family/

#### Directions in Advertising

In all advertising and publicity activities in the Fujitsu Group, we strive to observe all laws and corporate internal regulations and to only use fair and appropriate expressions and graphic symbols.

- Main advertising and publicity activities
  - •TV programming: Fujitsu sponsors "See the world by train" and "fight! KAWASAKI Frontale (a Japanese soccer team)" for Japanese TV.
  - •TV commercials/newspaper advertisements: Fujitsu places advertisements for Fujitsu products in daily life. The themes of this series of press advertisements have included firefighting, farming, the Automated Meteorological Data Acquisition System, the Subaru telescope, and data centers.

#### Product and Service Marking/Labeling

In the divisions in charge of every Fujitsu product or service, we make all possible efforts to observe all laws and company internal regulations concerning the marking and labeling of Fujitsu Group products for content, performance, safety and specifications.

### With Our Business Partners

We promote our CSR procurement in cooperation with our business partners as well as support their efforts to enhance business continuity management (BCM) and compliance.

#### Promoting Socially Responsible Procurement

In procurement, we pursue a policy based on harmonious coexistence with our business partners, fair and proper evaluation and selection of suppliers, and the promotion of socially responsible procurement activities.

We work together with our suppliers to implement procurement activities grounded in the principles of corporate social responsibility (CSR). In particular, in March 2006, we published our CSR Procurement Guidelines, which state our requirements such as respect for human rights, labor, health and safety and fair trading, asking our suppliers for their strict compliance.

Also, in 2007 we published the Fujitsu CSR Promotion Guidebook, which describes concrete efforts based on the CSR Procurement Guidelines, and held a briefing session for approximately 180 of our main suppliers. In the briefing session, in addition to the explanation about the CSR Procurement Guidelines and the CSR Promotion Guidebook to suppliers, we conducted a written survey to ascertain progress status and CSR activities systems at our suppliers (of whom there were about 750 in FY 2010). We carry out this written survey every year and provide the results to our suppliers as feedback to support their proactive improvements related to CSR management.

WEB Fujitsu Procurement Policy and CSR Procurement Guideline http://www.fujitsu.com/global/about/procurement/policy/

#### Informing and Emphasizing the Importance of CSR to Buyers

Through education and training, Fujitsu keeps employees in charge of procurement informed of the importance of CSR-conscious procurement activities. In FY 2010, we held trainings on such themes as compliance with the laws governing subcontracting and worker dispatching, information security, and personal information protection in procurement activities as well as CSR-conscious procurement and green procurement activities.

In FY 2011, we will continue similar education to further increase our buyers' awareness on CSR issues.

#### Fujitsu CSR Procurement Guidelines

1. Protection of the Global Environment

Complying with the Fujitsu Group Green Procurement Direction, we promote the establishment of environmental management systems (EMS), and we aim to supply products and services that involve low environmental load and do not contain hazardous substances.

- Compliance with Laws and Regulations
  We adhere to applicable laws, regulations and accepted social practices
  governing our local and global businesses.
- 3. Respect for Human Rights, Labor, Health and Safety
  - We respect individual human rights and do not unfairly discriminate against people based on race, color, religion, creed, sex, social status, and physical or mental disability, and we do not engage in human rights abuses such as sexual harassment. Also, we do not induce anybody to infringe such human rights.
  - We establish comfortable work environments for the security and health of our employees.
- We do not use child labor or any form of forced or compulsory labor.
   Assurance of Safety and Quality of Products and Services
   We maintain high standards of safety and quality in our products and services.

#### Collaborative Promotion of CSR with Suppliers Promoting Green Procurement

We have set out the basic requirements for environmentally sound procurement of parts, materials and products in the Fujitsu Group Green Procurement Direction and are working with our suppliers on green procurement activities (see page 61).

We request that all of our suppliers implement an environmental management system (EMS) so that they can continuously implement environmental burden reduction. In particular, we periodically survey their EMS implementation status and, as a general rule, request that they establish an EMS subject to third-party certification. We also ask that our suppliers build a chemical substances management system (CMS\*1) based on the JAMP\*2 guidelines for the management of chemical substances included in products. We monitor our suppliers' production sites and promote efforts at improvement to strengthen management of chemical substances included in products in the supply chain.

As a new initiative starting in FY 2010, we request that our suppliers make efforts toward limiting and reducing CO<sub>2</sub> emissions and conserving biodiversity. In particular, we held briefing sessions for our suppliers, and asked for their support after we explained the importance of declaring their commitment to these themes explicitly and of promoting activities with specific goals. Especially, with regard to conserving biodiversity, we supported our suppliers' efforts in this area by preparing and providing guidelines for them which include concrete examples of such efforts at corporations and information on ways of promoting such activities.

\*1 CMS: Chemical substances Management System \*2 JAMP: Joint Article Management Promotion Consortium

#### **Supply Chain BCM**

To ensure the stable supply of products and services to our customers in the event of unexpected contingencies, Fujitsu has made a major commitment to strengthening the BCM capabilities of our suppliers since FY 2007.

#### 5. Maintenance and Promotion of Information Security

We maintain and promote information security in order to properly protect our own information and information systems and those of third parties. 6. Fair Trade and Corporate Ethics

#### 1. Fair Trade

- We promote fair, transparent and free competition and do not engage in any illicit trade.
- Protection of Confidential Information We maintain and promote proper handling of confidential information, including third parties' confidential and personal information.
- Protection of Intellectual Property
  We strive to obtain, maintain and utilize the intellectual property of others,
  understanding the role that intellectual property plays as an important
  resource to underpin organizations' business activities.
- 4. Prohibition of Bribes

We do not engage in any bribery of public officials or any similar activities, or any corruption, extortion, or appropriation through the abuse of one's position in the organization. We have so far held a total of 23 briefing sessions for our main suppliers to explain the necessity for BCM and Fujitsu's approach to this issue. Furthermore, every year we conduct a questionnaire survey on the subject matter and in FY 2010 we surveyed some 750 suppliers about BCM by questionnaire. We also held workshops in order for the suppliers whose efforts in this area are not making progress to acquire the necessary knowledge about BCM. As a result, the percentage of suppliers who developed their own BCM plans improved significantly from 11% in 2006 to 48% in 2010.

In FY 2011, we will be promoting further BCM enhancements throughout the entire supply chain after verifying how our suppliers coped with the Great East Japan Earthquake, which occurred on March 11, 2011.

#### **Thorough Enforcement of Compliance**

The Fujitsu Group is working to ensure thorough compliance throughout the entire supply chain.

Every year, we conduct a written survey to assess the status of compliance system formation in our suppliers' supply chains (i.e., secondary and more distant suppliers), which will verify the thoroughness of compliance enforcement. Also we are promoting business transactions with the consideration of risk assessment by identifying the products and regions that are concerned with high risk of labor and other problems and by determining whether or not we are procuring from the regions in question. Furthermore, in an effort to strengthen the compliance of our suppliers, we held training sessions in February 2011 that directed the attention of management and workers in our major solutions-related partners towards compliance issues.

#### **Promoting Information Security Measures**

The Fujitsu Group has set the goal of eliminating information security breaches and, along with our suppliers, we continuously implement measures to prevent such breaches and to prevent any reoccurrences should they still occur. These measures include education, enlightenment, auditing, and information sharing.

When we start business with a new supplier, we have made it a rule to explicitly state in the contract that the supplier shall manage information security and handle personal information at the same level as Fujitsu does. If any serious problem in information security occurs at a supplier, or if a supplier shows no improvement in its security management, we reconsider the business relationship with the supplier and may discontinue placing new orders.

In recent years, we have been working to implement information security measures equivalent to those used in our domestic (Japanese) activities for an increasing number of offshore development projects with overseas partners.

- Main efforts in FY 2010 (For suppliers of software development, services, or hardware manufacturing)
   Information security seminars (Dec. 2010)
- A total of some 1,200 companies (some 1,300 individuals) attended •Questionnaires to suppliers on information security measures (Feb. 2011 through Mar. 2011)
- About 1,400 companies
- •Information security audits (on-site) of our suppliers (Apr. 2010 through Mar. 2011)
- A total of some 190 companies

#### **Compliance Line Available to All Suppliers**

Fujitsu launched a confidential communication channel, called the "Compliance Line," available to all suppliers, in August 2009. The Compliance Line is to receive reports from suppliers on any matters of potential or actual non-compliance action with regard to our purchasing activities (see page 93).

#### Partnerships with Our Suppliers

In 1997, Fujitsu established its suppliers' performance review (SPR\*1) system, in which our about 200 core suppliers (covering 90% or more of total procurement) are comprehensively evaluated for their products and efforts from the standpoint of quality, technology, price, supply, the environment and reliability. From FY 2008, we have added the results of our survey on CSR, information security and BCM to "environment and reliability" section of the SPR and used them to evaluate suppliers in the SPR program. For our partners in the solutions business, we developed a similar review system (PPR\*2) in 2004. Starting in 2008, we reviewed about 1,500 solution-related system supplier companies and provided the results as feedback to about 200 of our main suppliers.

With our main suppliers, we hold business review meetings organized by our top management in which we directly share the results of our evaluation with suppliers and explain the outlook of our business and our procurement strategies.

\*1 SPR: Suppliers' Performance Review

\*2 PPR: Partners' Performance Review

#### **Fujitsu Supplier Day**

Since 1997, we have held Fujitsu Supplier Day to strengthen our partnership with our business partners. In the event, we present letters of appreciation to those suppliers who have made

exceptional contributions to our business, and the company president and the VP in charge of Purchasing give presentations to share our procurement policies in line with Fujitsu's business plans.

The FY 2010 event was held in January 2011 and was attended by approximately 740 representatives from some 370 domestic and overseas suppliers.



Fujitsu Supplier Day

### For Our Shareholders and Investors

As we increase our management transparency by the timely and appropriate disclosure of information, we are moving forward with a variety of IR activities for even better communications with our shareholders and investors.

#### Basic Policy on Information Disclosure

Fujitsu emphasizes fairness and continuity in disclosure of information, in accordance with the Financial Instruments and Exchange Act and other laws and regulations, as well as the rules of the exchanges on which its shares are listed.

Moreover, our policy is to be proactive in disclosing any information that we judge to be effective for helping shareholders, investors and other stakeholders to deepen their understanding of Fujitsu, even if such disclosure is not required by laws, regulations or other rules.

#### Basic Policy on Returns to Shareholders

Article 40 of Fujitsu Limited's Articles of Incorporation grants the Board of Directors the authority to distribute retained earnings. As part of Fujitsu's basic policy on the exercise of this authority, we believe that a portion of retained earnings should be paid to shareholders to provide a stable return, and that a portion should be retained by the Company to strengthen its financial base and support new business development opportunities that will result in improved long-term performance.

In addition, taking into consideration the level of profits, Fujitsu aims to increase the distribution of profits to our shareholders when the financial base is sufficiently strong enough, including through share buybacks.

#### Communicating with Shareholders and Investors

We are actively involved in IR activities in Japan and abroad, including holding briefing sessions for institutional investors and securities analysts, responding to individual requests from investors, visiting Japanese and international investors, and transmitting information through the Fujitsu website as part of our efforts to improve communications with all our investors.

We also disseminate press releases, providing information through the media to individual investors and the public at large as part of our active efforts to ensure fair disclosure.

The Annual Shareholders' Meeting is taken as an opportunity to improve communications with all our shareholders, for example by displaying our products so as to increase understanding of Fujitsu. We also carry out questionnaire surveys of opinions of our Annual Shareholders' Meeting, and the results are used to improve subsequent meetings.

# A Variety of Meetings for the Investor Community, both in Japan and Overseas

In addition to briefings on financial results, we provide a variety of presentations on management policy and specific business briefings targeted at institutional investors and securities analysts in Japan.

For institutional investors outside Japan, we hold road shows (explanatory meetings for investors) regularly in Europe and North America, and local staff members also visit investors individually.

# Communicating with Individual Shareholders and Investors

We prepare and send out interim and year-end financial reports for individual shareholders and investors. We promptly disclose IR materials used at analyst briefings and materials and images from the year-end presentation of financial results, utilizing PDF files and streaming technology.

When we report interim dividends, we also carry out a questionnaire survey to derive feedback from a wide range of shareholders and investors.

#### Publication on IR websites

Fujitsu publishes information that we would like our shareholders and investors to know on our Japanese and overseas IR websites. This information includes overviews of Fujitsu and a wide range of disclosed documents.

We also use our IR websites for information disclosure and communication to deepen people's understanding of Fujitsu through IR activities, such as early public release of proposals submitted at shareholder meetings.

WEB \*IR website for shareholders and investors (Japanese IR site) http://pr.fujitsu.com/jp/ir/

- Investor Relations (overseas IR site)
  - http://www.fujitsu.com/global/about/ir/
  - IR website for private individuals (in Japanese)
  - http://pr.fujitsu.com/jp/ir/private/
  - •Executive Presentations
  - http://www.fujitsu.com/global/about/ir/library/presentations/

		2010 Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	2011 Jan.	Feb.	Mar.
In Japan	Annual Shareholders' Meeting			•Annual	Shareholders	Meeting							
	Management Direction Briefing				•Mana	gement Direct	ion Briefing						
	Financial Results Announcements	•Ai	nnual Financia	al Results	۰F	' irst-Quarter Fi	nancial Result	s •Se	cond-Quarter	Financial Resu	ılts •Thi	rd-Quarter Fina	ancial Results
	Business Briefings	•R&D*								• [	SI Business Stu	ıdy	
Outside Japan	Roadshows		•North Ame	rica •Europe			•As	ia	•Europe	•North Amer	ica		

#### Main Results of IR Activities in FY 2010

In FY 2010, we held about 1,050 briefings for institutional investors and securities analysts (58% of them overseas and 42% within Japan). \* This R&D Strategy Briefing was held on March 31.

# With Global and Local Communities

We engage in a variety of social contribution activities for a prosperous future where people's dreams are fulfilled, and we make proposals and suggestions to governments and industry groups to help solve problems and issues.

#### Basic Approach

#### **Directions for Social Contribution Activities**

The Fujitsu Group will create new value and knowledge together with our customers, communities, and people worldwide and contribute to sustainable development for the earth and society to achieve a prosperous future where people's dreams are fulfilled.

Fujitsu engages in social contribution activities together with a wide range of stakeholders and bases those activities on four pillars: ICT for Everyone, Challenges, Community Engagement and Environment.



🛡 ICT for Everyone 🔷 Challenges 📕 Community Engagement ★ Environment (See page 65 for the more articles of Environmental Social contribution.)

### Promoting Learning & Education and International Exchange

- Fujitsu Kids' Site (Japanese website)
- PC assembly workshops
- Support for Information Ethics education
- Management of the Japan-America Institute of Management Science (JAIMS)
- Sponsorship of the Fujitsu Scholarship Program
- Support for the Mathematical Olympiad Foundation of Japan & the Japanese Committee for the International Olympiad in Informatics

#### **Company Sports**

- Track and field
- American football
- 🔶 📕 Women's basketball

#### Activities Related to Public Policy

Fujitsu participates in government and industry group councils and committees and promotes activities relating to the investigation of concrete proposals and measures to resolve social issues as well as the creation and revision of legal systems.

In FY 2010, Fujitsu worked with about 1,300 partners such as industry groups, research organizations, and NGOs on activities including the following.

#### Studying Ways to Protect the Country Against Natural Disasters

A Fujitsu board member served as the chairperson of a dedicated investigatory committee concerned with countermeasures for largescale flooding established by the Japanese government's Central

Disaster Prevention Council. Given that largescale flooding with the potential of severe damage to urban areas now occurs worldwide, this committee completed a report in April 2010



Working with the Central Disaster Prevention Council

Cultural & Artistic Activities

- Sponsorship of the Fujitsu Concert Series
   Sponsorship of the Fujitsu Concord Jazz Festival
- Hosting of the 18th Fujitsu Cup Masters Tournament
- Hosting of the 23rd World Go Championship Fujitsu Cup
- Sponsorship of the Fujitsu Ladies Golf Tournament
- Support for the Kawasaki Frontale Professional Soccer Team

#### Local Activities

ICT for Everyone

Community

Engagement

Challenges

■★ Spring Festival at Kawasaki Research and Manufacturing Facilities

Environment

- ■★ Tea-picking Festival at Numazu Plant
- Kusunoki Festival at Fujitsu Solution Square

#### **Disaster Relief Support**

- Miyazaki Prefecture hoof-and-mouth disease outbreak (May 2010)
- China, Qinghai earthquake (May 2010)
- New Zealand earthquake (March 2011)
- Great East Japan Earthquake (March 2011)

following three years and half of study and investigation. This report provides specific estimates of the damage that could be sustained were large-scale flooding to occur in the Tokyo metropolitan area. The report made specific proposals on measures the government should take to ensure timely and appropriate evacuation, and to strengthen emergency preparedness in public agencies, and other issues.

#### Studying Regulations Appropriate for the Times

While there are regulations under the legal system whose purpose is to protect the nation's citizens or support smooth and active economic activity, regulations need to be reviewed in light of technological progress and changes in society.

The Japanese government reviews regulations that may have become anachronistic under a subcommittee on regulatory and systematic reform established by the Government Revitalization Unit. Fujitsu executives serve on a working group of this subcommittee. In FY 2010, this subcommittee looked into procedural simplification for wind and solar power generation and establishing rapid charging stations for electric cars, diversifying the system of charges for electric power among other issues, and made recommendations for regulatory reform to achieve a low-carbon society.

### With Global and Local Communities

#### Activity Examples ICT for Everyone

#### Japan

#### Fujitsu Kids Event 2010

In cooperation with the Japanese Olympiad in Informatics Committee, we held an event to interest children in technology and foster their dreams in July 2010 at our Kawasaki research and manufacturing facilities. This was the fourth such event to be held, and about 100 children selected by lottery enjoyed learning about computer mechanisms through play and games.

The event had two parts. In the first, entitled "Let's have fun learning about computers!" after trying to sort a variety of data in a group project, the children learned about the mechanism by which multiple computers process data in parallel by walking around a picture painted on the ground. In the second part, "Let's find Fujitsu technology!" the children visited "Fujitsu Technology

Hall," where many products such as supercomputers and their applications, self checkout systems, and undersea cables are displayed, and learned how the mechanisms they had studied are used in actual products.



Fuiitsu Kids Event 2010

Providing "Karada (Body) Life" to Respond to a Variety of Health Needs

Fujitsu has been providing a service that records physiological changes and other data acquired using mobile phone sensors and personal computers on a cloud server to support daily

health management since August 2010.

Additionally, since the end of June 2011, we have operated a patient support service for diabetes, a disease that affects a growing number of actual and potential patients every year. This system aims to use the power of ICT to simplify personal management of daily



blood glucose levels and lifestyle so that patients can keep going without wearying effort.

Fujitsu is committed to supporting all kinds of health needs from disease prevention and health improvement to patient support.

#### Websites for Kids to Experience the Joy in Learning

To convey to children respect for intellectual property and the spirit of creating things, Fujitsu FOM Limited, which provides ICT-based education, supports the virtual patent application site "Brainstorm Champion" operated by Yamanote Consulting, Inc.

Also, Fujitsu Learning Media Limited, which provides human resource development services offers an internet browser for kids "Hiragana Navi" to convert Kanji (Chinese characters) into Hiragana or the alphabet, as well as to filter out harmful information. Nifty and Fujitsu also provide enjoyable educational content for children.

#### Overseas

#### The Americas USA

#### Excellence in Leadership Prize Received for Contributions to **Primary Education**

In its home base of Richardson, Texas, Fujitsu Network Communications (FNC), which provides communications solutions such as systems for communications carriers in North America, works to contribute to local communities. In addition to making donations to grade schools, these efforts include classes taught at school sites by Fujitsu employees, acting as judges at science fairs and invention fairs, and provision of the Fujitsu Challenge Prize to teachers who integrate creative and innovative use of technology as part of the instruction process.

These activities have been widely praised, and in April 2011, FNC was awarded Richardson Independent School District's excellence in leadership prize, the highest award given to a corporation for contribution to the community.



Speech at the Awards Ceremony

#### Asia Thailand

#### PC Donation for Education and Sea Conservation Program

Fujitsu System Business Thailand (FSBT), an ICT solution company in Thailand, joined hands with Siam Family Mart, operating a chain of convenience stores in Thailand, in the project initiative entitled 'Youth and Education' in June 2010. In this project, FSBT donated 12 PCs to rural schools for the purpose of supporting education program.



Donating PCs to the "Youth and Education" Project

FSBT also donated 8 sets of PCs for education to Nongmakok Temple in rural temple at Petchburi province in July 2010.

Additionally, FSBT organized Fujitsu Sea Conservation program in February 2011 to celebrate the 20th anniversary for the operation in Thailand. FSBT executives and staff visited a coral plantation area in Chonburi province and donated baby mangrove trees to support the coral plantation project.

#### Activity Examples Challenges

#### Japan

Supporting a Programming Contest for Technical College Students The programming contest is a competition at which technical college students from all over Japan exhibit the results of their studies and compete with their concepts and capabilities in information processing technology. Fujitsu has supported this contest as a special cooperating corporation since the 6th annual event in 1995. In commemoration of the 20th anniversary of the founding of this contest, in 2009 Fujitsu established the Fujitsu Special Prize and presents a Fujitsu personal computer to the winning team as an additional prize.

In November 2010, Fujitsu invited the winning team to its Kawasaki research and manufacturing facilities. In addition to presentation and demonstration by them, we arranged discussions with a variety of Fujitsu employees, including engineers from the technology division. The students were forthcoming with technical question concerning development efforts at the site, project



Technical college 21st Programming Contest

management methods, and other issues.

Fujitsu is committed to encouraging the growth of the young ICT technologists, who will in turn support future society, by supporting this programming contest.

#### Supporting Athletes in a Variety of Fields

The Fujitsu Group supports people who take on challenges in a variety of fields.

Among Fujitsu's employees there are many athletes who compete at the world-class level despite handicaps. For example, Fujitsu employees have participated as Japanese representatives in wheelchair rugby, wheelchair basketball, and downhill chair skiing events. These athletes work seriously at their activities while meeting their responsibilities in both their jobs and their sports.

We also support the annual Oita International Wheelchair Marathon, where some of our employees participate as competitors. Fujitsu continues to encourage employees taking on

challenges by supporting those who work in various fields at the

same time as they are participating in American football, track and field, and women's basketball teams.



30th Oita International Wheelchair Marathon

#### **Overseas**

#### The Americas USA (Hawaii)

### Educating Business Leaders at JAIMS

(Japan-America Institute of Management Science) JAIMS is a non-profit educational institution set up with the full backing of Fujitsu in 1972 to provide postgraduate level education. Anticipating the increasing importance of US–Japan business relations, the institute was established based on the vision of Yoshimitsu Kohra, then Fujitsu President, to foster the development of globally minded business people who could act as future bridges between the two nations. (A total of 23,000 people from 54

countries have participated.)

Currently, its mission is to contribute to the development of human resources and the formation of a community through knowledge co-creation in the Asia-Pacific region.



IAIMS Students



http://www.jaims.org/

#### Asia

#### Providing Opportunities to Study at JAIMS through the Fujitsu Scholarship Program

In 1985, in celebration of the 50th anniversary of its founding, Fujitsu established the Fujitsu Scholarship Program to foster elite business leaders who will connect Japan with the rest of the world.

Initially, this program started as a scholarship for participants to study Japanese Management at JAIMS. In 1996, we expanded it to include programs other than JAIMS and provided opportunities for businesspersons from the Asia-Pacific region to study, and the cumulative total of recipients has reached about 420 persons as of April 1, 2011.



http://www.fujitsu.com/global/about/responsibility/ community/scholarship/

#### Asia Vietnam

#### Scholarship Program to 3 Universities in Hanoi

Fujitsu Vietnam Limited (FVL), an IT company in Vietnam, gives scholarship for 2 excellent students in each of 3 universities, Hanoi University of Technology (HUT), National Economic University and College of Technology every year.

### With Global and Local Communities

#### Activity Examples Community Engagement

#### Japan

#### Supporting the Yosakoi Festival with ICT

The Yosakoi Festival in Tosa, Kochi Prefecture, is one of the most popular summer festivals in Japan, with 18 thousand participants (dancers) and two million visitors over four days. Fujitsu Shikoku Systems Limited, which is based in Kochi Prefecture, and some other Fujitsu Group companies support its operation by developing and operating a Performance Management System, the "Dokoiko Service." This system is designed to resolve problems of crowding by visitors and traffic jams getting to the various event stages and areas from the standpoints of both visitors and dancers.

The "Dokoiko Service" provides real time information about crowding at the event stages and dancing spots over the internet. It enables the dancers to see where they can dance at minimum waiting time. Based on the information, they decide their route and apply for the performance so that they can dance at more stages. On the other hand, visitors can check the performance schedule on the website, and get to the stages prior to their favorite dancers' arrival. Thus, the Dokoiko System contributes to

efficient operation of the Yosakoi Festival.



Introducing the Dokoiko Service at the Yosakoi Festiva

### Supporting Career Education with Workplace Experiences and Delivered-to-the-School Classes

The Fujitsu Group offers junior high school students opportunities to learn about society and professional people as a part of their career education through classrooms or vocational experiences.

Fujitsu Design Limited provides mobile-phone design workplace experiences at their Kawasaki research and manufacturing facilities.

The Group also participates in a program that delivers classes to students as part of an NPO-sponsored career education program. Thus Fujitsu works proactively in education support activities and continues to support local career education.



A career education program at a junior high school

#### Activities that Contribute to Society by Group Employees

Employees of Fujitsu Group companies participate in everyday social contribution activities, such as collecting used plastic bottle caps, stamps and prepaid cards and donating the proceeds to polio vaccine or seedling planting projects.

At the Fujitsu Shiodome headquarters in December 2010, employees collected and sold secondhand books and DVDs in support of internationally active NGOs. Also in that month, we held a fair trade product sales event at the Fujitsu Solutions Square (in Kamata) at which 5 NGOs exhibited.

#### Overseas

#### **Europe** United Kingdom

**Charity Bicycle Race to Raise Money for British Heart Foundation** Employees of Fujitsu Telecommunication Europe Limited (FTEL), a UK telecommunications' company operating in Europe and the Middle East, held a charity bicycle run to raise money for local emergency equipment for the British Heart Foundation (BHF) in October 2010. Seventy employees and 15 family menbers joined either a 50 or an 80 km course in Warwickshire, the United Kingdom and enjoyed running though the local countryside and seeing many sights such as William Shakespeare's birthplace. In preparation for the run, many of FTEL employees were training after work and in lunch breaks.

FTEL raised GBP 7,500 (about one million JPY) for BHF by this charity run.



FTEL employees who participated in the charity bicycle run

#### **Oceania** Australia

Volunteer Activity for Challenged Persons in Vocational Training Facility In November 2010, 12 employees of Fujitsu Australia and New Zealand Limited (FANZ) provided assistance with packing and assembly works to challenged persons in High Point Industries, a vocational training facility. This activity was organized in cooperation with United Way Melbourne, a volunteer-led NPO.

The purpose of the activity was to help challenged persons

exert their abilities though the work. However, it also became a valuable opportunity for FANZ employees to recognize the importance of local communities.



Employees who participated in volunteer work

### Corporate Governance

We are pursuing sound and efficient management and strengthening our governance structure for putting the Fujitsu Way into practice.

#### Basic Stance

In order to continuously raise the Fujitsu Group's corporate value, along with pursuing management efficiency it is also necessary to control the risks that arise from business activities. Recognizing that strengthening corporate governance is essential to achieving this, the Board of Directors has articulated the Basic Stance on Internal Control Framework, and these measures are continuously implemented.

Furthermore, by separating management oversight and operational execution functions, we aim to accelerate the decision-making process and clarify management responsibilities. Along with creating constructive tension between oversight and execution functions, we are further enhancing the transparency and effectiveness of management by proactively appointing outside directors.

With respect to Group companies, we are pursuing total optimization for the Fujitsu Group by clarifying each group company's role and position in the process of generating value for the group as a whole and managing the group to continuously enhance its corporate value.

#### The Framework for Strengthening Corporate Governance

Fujitsu has established Executive Nomination and Compensation Committees in order to ensure the transparency and objectivity of the process for choosing candidates for the Board of Directors, determining their compensation, and ensuring that the compensation system and levels are appropriate. The Executive Nomination Committee acts as a consultative body to the Board of Directors. Taking into consideration the current business climate and anticipated trends, the Executive Nomination Committee makes recommendations of candidates (draft) for the Board of Directors, choosing candidates having objectivity in making management decisions, foresight and perceptiveness, and a superior character. The Compensation Committee is tasked with making recommendations on executive salaries and methods for calculating bonuses linked to financial performance, taking into consideration compensation levels at other companies with similar business activities, business scale, and other factors. The aim of this activity is to retain superior management talent, and provide effective incentives for improving the company's financial performance.

In addition, we have adopted the processes in place, in accordance with laws and regulations, to ensure that conflicts of interest are avoided, including but not limited to obtaining approval from the Board of Directors.

\* The information above is as of June 23, 2011. For the latest information, please refer to our Corporate Governance Report.

Corporate Governance Report **WEB** http://www.fujitsu.com/global/about/profile/direction/governance/



#### Corporate Governance Framework

### **Risk Management**

We are implementing practical and continuing improvements to our group-wide risk management, promoting activities aimed at preventing risks from materializing and minimizing the impact should an incident occur.

#### Basic Stance

Through its global activities in the ICT industry, the Group continuously seeks to increase its corporate value, and to contribute to its customers, local communities and indeed all stakeholders.

Properly assessing and dealing with the risks that threaten the achievement of our objectives is assigned a high priority by management. The entire Group has built a risk management system in accordance with the Fujitsu Way, and is committed to its continuous implementation and improvement.



#### Business Risks

The Group identifies, analyzes and evaluates the risks that accompany business activities and works on measures to avoid or reduce them, and to deal with them quickly in the unlikely event that they materialize.

#### **Examples of Business Risks**

- Financial and economic market trends
- •Changes in customers' ICT investment trends and being unable to maintain lasting ties with customers
- Competitors' strategies and industry trends
- Procurement, collaborations, alliances and technology licensing
- Public regulations, public policy and tax matters
- Deficiencies or flaws in products and services, information security, project management, investment decisions, intellectual property rights, human resources, environmental pollution, credit ratings, etc.
- •Natural disasters and unforeseen incidents
- Note: These are just some of the risks of doing business. More detailed risk-related information can be found in our financial results and other reports to shareholders

#### Risk Management Structure

We have established the Risk Management Committee as a body to perform risk management in accordance with the Fujitsu Way. This committee reports directly to the Management Council.

The Risk Management Committee appoints risk management executives in all business units and companies throughout the Group, and encourages cooperation among them both to guard against potential risks and to mitigate risks that are threatening, forming a risk management structure for the entire Group.



#### The Risk Management Framework

The Risk Management Committee is responsible for grasping the risk management situation in all Fujitsu business groups and Group companies, establishing the appropriate policies and processes, etc., and both implementing and continuously improving them.

In practical terms, it decides on risk management regulations and guidelines, applies them and regularly reviews and improves them.



#### **Risk Management Processes**

The Risk Management Committee, which maintains regular communications with risk management executives, identifies, analyzes and evaluates the risks of business activities, confirms the detailed measures intended to deal with major risks by averting, minimizing, transferring or retaining them. It also reports important risks to the Management Council.

The Risk Management Committee also prepares responses against the actual materialization of a risk despite the implementation of various preventive measures. If a critical risk such as a natural disaster, product breakdown or defect, a problem with a system or service, a compliance violation, an information security breach, or an environmental problem materializes, the department or group company reports immediately to the Risk Management Committee. The Risk Management Committee coordinates with the related divisions and workplaces for rapid resolution of the problem by appropriate measures such as establishing a task force. At the same time, the Risk Management Committee strives to identify the causes of the problem and propose and implement solutions. Additionally, for critical risks, the committee also reports as appropriate to the Management Council and the Board of Directors.

The Risk Management Committee continuously confirms the implementation status of these processes and works to make improvements.



#### Group-Wide Disaster Prevention

We have organized a Group-wide disaster prevention network for the event of a major disaster. To minimize harm to persons and property we perform frequent disaster prevention inspections and simulation exercises at all our business locations.

Since 1995, we have carried out in Japan nation-wide disaster prevention drills in conjunction with Japan's Disaster Prevention Day, assuming an earthquake with its epicenter under the capital or off the Tokai coast. In FY 2010, we carried out initial response disaster drills for verifying the amount of damage at each Fujitsu site and verifying the safety of Fujitsu employees in the western Kanto and Tokai areas assuming a Tokai area earthquake with a seismic intensity of seven on the seven-point Japanese scale. At the same time, we also carried out drills for restoring ICT systems belong to customers who were affected by the earthquake following the business continuity plan (BCP).

After the Great East Japan Earthquake, we put our company-wide disaster prevention training experience to work. Immediately after the earthquake occurred, we set up a Central Disaster Response Headquarters with the president of Fujitsu as Chief of Operations, and, while coordinating with the response groups in each division, verified conditions at our customers' sites and at Fujitsu Group sites to assist with our customers' recovery activities and with recovery and business continuity activities at our business sites (see pages 7 to 10).

#### Business Continuity Management

The risks of unforeseen events that threaten economic and social continuity, such as natural disasters like earthquakes and large–scale flooding, disruptive incidents, accidents, and epidemics such as the new strain of influenza, have increased greatly in recent years.

At Fujitsu, we place great importance on business continuity management (BCM), establish a business continuity plan (BCP), and implement training based on that plan. This is to assure that, when one of these risks materializes, not only do we continue operating our critical businesses and meeting our social responsibilities as a corporation, but that we also continue stable supply of the high-performance high-quality products and services our customers need.

We also work to promote business continuity in our whole supply chain. In addition to business continuity in the Fujitsu Group internal distribution and production supply chain, we also support our business partners' BCM promotion efforts (see pages 83 to 84).

When the Great East Japan Earthquake occurred, we activated our BCP to restore operation of our critical businesses and we also performed a variety of business continuity operations, such as temporarily moving PC production to an alternative site, restoring supply of services and products to our customers, and supporting social functions (see pages 7 to 10).

#### Measures Against the New Strain of Influenza

We have taken steps against the new strain of influenza based on a three-fold influenza policy; to safeguard lives, to stop the spread of infection and to ensure business continuity. We created a "Basic Action Plan for Measures Against the New Strain of Influenza" that stipulates preventive measures in everyday operations and the response process to be used if an outbreak occurs. We work to disseminate these to all employees through e-learning and by distributing pamphlets.

Also, to contribute to the continuity of social infrastructure businesses and the continuity of our customers' businesses should an epidemic occur or a particularly virulent new strain of influenza arise, we have established, and carry out training based on, a "Business Continuity Action Plan for Measures Against the New Strain of Influenza".

#### Risk Management Education

We have implemented a systematic educational curriculum that aims at preventing risks from materializing in advance and implementing risk reduction measures across the whole Group. It also aims at minimizing the spread or growth of damage should a risk materialize and preventing the same problem from reoccurring.

Through this education, we inform our employees of our basic approach to risk management and the rules to be followed, and cite concrete examples to strengthen our employees' awareness of risk management and their ability to deal with risks. We also hold education and training programs as appropriate on issues such as information security, environmental problems, and natural disasters.

### Compliance

We are ensuring thorough compliance in line with the Code of Conduct of the Fujitsu Way.

#### Compliance Promotion Structure

The Fujitsu Compliance Committee includes an independent lawyer as an observer and promotes the thorough diffusion and implementation of internal company rules, nurturing a corporate culture to comply with the Code of Conduct, and constructing the necessary systems and structures.

Furthermore, in cooperation with Legal Division for Corporate Affairs, the Compliance Office (as the administrative office of the Compliance Committee) carries out activities aimed at instilling an awareness of compliance.

Code of Conduct WEB

http://www.fujitsu.com/global/about/profile/philosophy/codeofconduct/

#### **Activities Promoting Compliance**

The Fujitsu Group engages in various activities to ensure widespread awareness of the need for compliance.

We update our "Understanding and Following the Code of Conduct" guidebook as appropriate so that the code of conduct is implemented at the workplace and in business, and provide it over the Fujitsu intranet along with introduction of concrete examples of Anti-Monopoly Law or bribery problems. An internal system to handle reports and inquiries from employees on antimonopoly issues has also been established.

In FY 2010, we implemented an educational activity for all Fujitsu employees in the form of a questionnaire in which employees could, through the questions and answers, deepen their understanding of the code of conduct and learn about methods for implementing it. This aimed at moving up to the next level; a phase in which every employee can practice the code of conduct with deeper understanding.

In FY 2011 we plan to implement an e-learning program based on the responses to the questionnaire carried out in FY 2010.

#### **Compliance Education**

To ensure strict compliance, the Group invites external lawyers as lecturers on compliance to educate executives of Fujitsu and Japanese Group companies.

The heads of sales divisions and branches are also given in-house training in anti-monopoly and other legal issues. Furthermore, newly appointed managers are given regular instruction by in-house lecturers on the Code of Conduct, and the vital importance of compliance, with typical examples where legal decisions may be difficult.

#### **Operating an Internal Reporting System** Helpline

Since September 2004, we have been operating an internal helpline system to handle reports and provide consultations for all Group employees (including seconded, contracted, part-time or other short-term employees as well as temporary staff).

Each of the Group companies in Japan has also established and operates its own internal reporting system.

#### Compliance line for suppliers

In August 2009 the existing helpline system was extended by a compliance line for suppliers to handle reports and inquiries directly from the employees of companies that supply Fujitsu with products, services or software, etc.

The system forbids any and all sanctions against employees and suppliers for making such reports, and meticulous care is taken in handling the information so as to preserve their anonymity.

### Information Security

#### Our Basic Approach to Information Security

Within the Fujitsu Group, the commitment to information security is seen as an expression of the Corporate Values of the Fujitsu Way, which says that we seek to become our customers' valued and trusted partner, and to build mutually beneficial relationships with our business partners. This commitment also leads to the practice of maintaining confidentiality, which is included in the Code of Conduct. We see it as a vital aspect of our social responsibility.

In line with this approach, we have established the Fujitsu Group Information Security Policy, consistent throughout the world, and we are promoting information security in accordance with it.



WEB Fujitsu Group Information Security Policy (in Japanese) http://jp.fujitsu.com/about/csr/management/security/policy/

#### Our Framework of Information Security Rules

Each Group company codifies related rules in accordance with the Fujitsu Group Information Security Policy, and implements information security measures.



\* PKI: Short for Public Key Infrastructure. Rules governing authentication of individuals, encryption, etc.

#### Strengthening Information Security at the Business **Group Level**

To assure the strongest possible information security management, we are working to implement a security management structure.

The Group operates in a wide variety of industries and is promoting individual businesses by organizing them into business groups. Information security measures are implemented to reflect the individual characteristics of each business.

A number of business units at Fujitsu and some domestic

Group companies have acquired ISMS (Information Security Management System) certification and are working to provide thorough management of confidential information including customers' information.

#### Teaching and Promoting Awareness of Information Security

Starting in FY 2008, using a common slogan which translates as "Declaration for complete information management! Information management is the lifeline of the Fujitsu Group," Fujitsu and domestic Group companies displayed posters at each of their business locations, and we also affixed information security awareness stickers to all the business PCs used by employees. We introduced a remote data deletion solution (CLEARSURE) and a mail checker (SHieldMailChecker) tool to prevent e-mail being sent outside the company in error, and in parallel with promoting the use of ICT we increased the awareness of information security among all employees.

E-learning courses are held for all employees including executives every year.

#### Personal Data Protection Initiatives

We have stipulated a Personal Data Protection Policy and Rules for Management of Personal Data in accordance with Japan's Act on the Protection of Personal Information. Based on these rules, we give education on how private information should be handled and carry out surveys in an ongoing effort to strengthen the protection given.

In August 2007, we acquired company-wide PrivacyMark certification and renew this certification every two years. Domestic Group companies are also acquiring PrivacyMark

certification individually as necessary, and promoting thoroughgoing management of personal data. Overseas Group companies are also publishing privacy policies that meet their various national legal and social requirements on their main public Internet websites.



Information Security Report

WEB http://www.fujitsu.com/global/about/responsibility/management/ security/reports/

#### Protecting Intellectual Property

#### Our Basic Approach Towards Intellectual Property

"We protect and respect intellectual property" is a basic tenet of the Code of Conduct of the Fujitsu Way.

In line with this statement, all Fujitsu Group employees recognize intellectual property as an important business asset that supports Group activities and gives our customers a sense of safety and trust in the Group as their partner, so employees are required to keep this constantly in mind as they perform their duties.

Under the above code of conduct, we established an internal rule in order to encourage the proper handling of intellectual property in October 1995. This rule specifies what all employees should do to acquire and use intellectual property rights and directs them to respect those of other companies.

#### **Respecting Intellectual Property**

The Group regards any infringement of intellectual property rights by its products and services as a serious defect. To avoid infringing other companies' patents, we conduct thorough searches of their patents at the initial stages of research and development and prior to putting the products or services onto a market.

We protect our business by dealing resolutely and swiftly with any and all infringements of Fujitsu's rights, and at the same time we respect others' rights, as mentioned above.

Intellectual Property Report WEB http://jp.fujitsu.com/about/ip/ipreport/

### TOPICS

#### How Intellectual Property Rights Can Contribute to Environmental Preservation

#### (Example 1) Smart Wall Power Socket

In addition to rendering visible the power consumption of plugged-in equipment from the first watt used, this power socket can also measure the standby mode power.

Since this socket can grasp any waste or variation in power used by individuals and electrical devices, it can promote

energy savings without interfering with office productivity. Fujitsu has already applied for some 20 patents concerning this technology.



#### (Example 2) Quantum Dot Laser

This quantum dot laser achieves high temperature stability and high temperature tolerance compared to conventional semiconductor lasers and was developed in a joint effort between QD Laser, Inc. and the University of Tokyo. This device can suppress the increasing power consumption associated with the rapidly growing use of the internet and the increasing performance of ICT equipment. Fujitsu has already applied for

about 30 patents concerning this technology, of which 20 have already been granted.

In October 2010, the Ministry of Economy, Trade and Industry awarded us the Minister's Award for the category of "Savings in IT-related Energy Consumption" as part of the Green IT Awards 2010\*.



\*2 InAs: Indium arsenide

\* Green IT Awards: These awards recognize contributions to the development, promotion, or application of IT equipment, services, or solutions that reduce the amount of energy used by society. (Sponsor: Green IT Promotion Council, with support from the Ministry ol Economy, Trade and Industry)

### Fujitsu Group Profile

Parent Company	Fujitsu Limited
Addresses	•Kawasaki Main Office 4-1-1 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa211-8588, Japan •Headquarters Shiodome City Center1-5-2 Higashi-Shimbashi, Minato-ku, Tokyo 105-7123, Japan
President	Masami Yamamoto
Established	June 20, 1935
Main Business Activities	Manufacture and sale of communications systems, information processing systems, and electronic devices, and the provision of services related to those products

**Consolidated Net Sales** 



#### Research and Development Expenditures/Capital Expenditures

Research and Development Expenditures Capital Expenditures



#### Sales Ratios by Region



Sales Capital Total Assets	Consolidated: ¥4,528.4 billion (FY 2010) ¥324.6 billion (as of the end of March 2011) ¥3,024,097 million (as of the end of March 2011) (Liabilities: ¥2,070,318 million; net assets: ¥953,779 million) March 21
FISCAL YEAF-END	March 3 I
Employees	Consolidated: 172,336 (as of the end of March 2011) Unconsolidated: 24,969 (as of the end of March 2011)
Consolidated Subsidiaries	535 companies
Equity-method Affiliates	15 companies
Stock Exchange Listings	Tokyo, Osaka, Nagoya, London

#### Consolidated Operating Income/Net Income (Loss)

☑ Operating Income ■ Net Income (Loss)



#### Trends in the Numbers and Ages of Employees



#### Employees by Region

APAC & China 28,000 (16.3%) The Americas 8,000 (4.7%) EMEA (Europe, Middle East, and Africa) 30,000 (17.4%) Consolidated total no. of employees for FY 2010: 172,336

#### **Regarding Our Business Segments**

The Fujitsu Group provides a wide range of services and products with the advanced technology, high performance and high quality essential for the future of the ICT sector, and operates an integrated total solutions business, from the development, manufacturing and sales of those products and electronic devices to the provision of maintenance services.

#### **Technology Solutions**

Services: System integration/consulting/front-end technologies (ATM and POS systems, etc.)/outsourcing services/network services/system support services/security solutions

System Platforms: Full range of servers/storage systems/various types of software/network management systems/optical transmission systems/mobile phone base stations





Tower Server - PRIMERGY TX120 S3

### **Ubiquitous Solutions**

PCs, mobile phones





REGZA Phone ISO4

FMV LIFEBOOK SH SERIES

#### **Device Solutions**

Logic LSIs/memory LSIs/semiconductor packages/optical transceiver modules/mechanical components (relays, connectors, etc.)





FM3 Family of 32-bit RISC microcontrollers

The SPARC64™ VIIIfx wafer, the world's fastest processor

#### FY 2010 Consolidated Net Sales by Business Segment



62.1%

#### Main consolidated subsidiaries

Fujitsu Frontech Limited Fujitsu Telecom Networks Limited Fujitsu IT Products Ltd. Fujitsu Broad Solution & Consulting Inc. Fujitsu Marketing Limited Fujitsu System Solutions Limited Fujitsu FIP Corporation NIFTY Corporation Fujitsu FSAS Inc. PFU Limited Fujitsu Network Communications, Inc. Fujitsu Services Holdings PLC Fujitsu America, Inc. Fujitsu Australia Limited Fujitsu Technology Solutions (Holding) B.V., others

Main consolidated subsidiaries

Shimane Fujitsu Limited Fujitsu Isotec Limited Fujitsu Mobile-phone Products Limited Fujitsu Toshiba Mobile Communications Limited Fujitsu Peripherals Limited Fujitsu TEN Limited Fujitsu Personal System Limited Fujitsu Technology Solutions (Holding) B.V., others

Main consolidated subsidiaries Fujitsu Semiconductor Limited Shinko Electric Industries Co., Ltd. FDK Corporation Fujitsu Component Limited Fujitsu Electronics Inc., others



### **Editorial Policy**

#### Reporting According to Fujitsu Group CSR Priority Issues

The 2011 Fujitsu Group Sustainability Report reports in accordance with the five CSR priority issues stipulated by the Fujitsu Group in December 2010, and includes typical examples of specific content relating to those issues.

Furthermore, given the enormous effect on society of the Great East Japan Earthquake that occurred in March 2011, it also sums up the Fujitsu Group's responses to that disaster.

#### This Report Focuses on Items Seen as Important

Of the various responses we have made to these priority issues, this report focuses on those items seen to be of prime importance. Items that could not be covered here are reported on the Fujitsu website.

Our basic editorial policy is to consider issues from two standpoints: the importance to society and stakeholders and the importance to the Fujitsu Group. In particular, we consider directions for this report based on opinions we receive from third parties, general readers, and stakeholders. We also continue to report on items featured in previous reports that each department considers to be still of prime importance to the Group.

Furthermore, we consider GRI guideline compliance and the comprehensiveness of the report from the standpoint of the ISO 26000 social responsibility standard.

#### Target Readership

This report is written for the following readership: all Fujitsu stakeholders including customers, employees, stockholders and investors, suppliers and business partners, international society and local communities, public institutions, and governments and specialists such as CSR survey institutions.

#### Reporting Period

This report focuses on activities in FY 2010, from April 1, 2010 to March 31, 2011, and the data presented is actual performance data from that period. Content from times outside that period, however, is also presented.

#### Organizations Covered

While the whole of the Fujitsu Group is the object of this report, when it is necessary to indicate the range of applicability, we will specify Fujitsu Group (to indicate the Group as a whole) or Fujitsu (to indicate Fujitsu, Ltd. as an independent entity).

Note that for environmental reporting, the object is Fujitsu itself plus a total of 130 companies (including companies outside Japan) centering on consolidated subsidiaries that build environmental management systems. Also, environmental burden data reporting covers Fujitsu itself, Fujitsu Laboratories, Ltd. (17 locations), and 27 main manufacturing subsidiaries (of which 24 are in Japan and three are overseas). Environmental accounting data covers Fujitsu itself and 30 main subsidiaries (of which 26 are in Japan and four are overseas).

The organizations that are covered in environmental activities reporting are listed on the following website. http://jp.fujitsu.com/about/csr/eco/communication/report/2011/ (Japanese)

#### Publisher

Published: November 2011 (The next report will be published in October 2012 and the previous report was published in September 2010.)

Authority for Publication: Masami Yamamoto President and Representative Director

This report is the English version of the Japanese report which was published in August 2011, and the information provided here (page 1 to 98) is based on the Japanese report.

#### Significant Changes in Coverage

In association with our acquisition of all shares in FDK TWICELL Co., Ltd. and FDK Tottori Co., Ltd., these companies are also covered in this report.

#### Guidelines Referenced

- GRI Sustainability Reporting Guidelines, Version 3.1 (G3.1) http://www.globalreporting.org/
- ISO 26000 Guidance on Social Responsibility
- Ministry of the Environment: Environmental Reporting Guidelines (2007 edition)
- http://www.env.go.jp/policy/report/h19-02/full.pdf (Japanese)
- Ministry of the Environment: Environmental Accounting Guidelines (2005 edition)

http://www.env.go.jp/policy/kaikei/guide2005.html (Japanese)

#### Reporting System

• Detailed and new information not included in this report is reported extensively on the Fujitsu website. This report itself is also provided on the Fujitsu website, where it can be downloaded in PDF format.

WEB

WEB

Our Approach to Corporate Social Responsibility http://www.fujitsu.com/global/about/responsibility/

•We report on our financial status in detail in our annual report.

Annual Report http://www.fujitsu.com/global/about/ir/library/annualrep/



#### A Note Concerning Future Projections, Forecasts and Plans

This report not only describes past and present facts related to the Fujitsu Group but also includes future projections, forecasts and plans. Such projections, forecasts and plans are based on data available when the report was prepared, and therefore involve a degree of uncertainty. Accordingly, future results of operating activities and other new developments may differ from the projections, forecasts and plans included in this report. We ask our readers' understanding of the fact that the Fujitsu Group cannot be responsible for such eventualities.

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#### Translation

The following is an English translation of an independent assurance statement prepared in Japanese and is for information and reference purposes only. In the event of a discrepancy between the Japanese and English versions, the Japanese version will prevail.

#### Independent assurance report

5 August 2011

Mr. Masami Yamamoto

President and Representative Director FUJITSU LIMITED

#### 1. Purpose and scope of our assurance engagement

We have performed certain assurance procedures, based on the engagement with Fujitsu Limited (the "Company"), on the Company's Key Sustainability Performance indicators. These comprise the environmental accounting data and the material environmental information<sup>1</sup> of the Company and its major subsidiaries for the year ended 31 March 2011, that were reported in the Fujitsu Group Sustainability Report 2011 (the "Report"). The assurance procedures are with respect to whether the key environmental performance indicators have been measured and calculated accurately, whether material information has been fully disclosed in accordance with the reporting standards for sustainability reports<sup>2</sup> and whether the Company's self-declaration on the GRI application level conforms to the application level criteria stipulated by the GRI guidelines.

The preparation of the Report is the responsibility of the Company's management. Our responsibility is to express an independent opinion on the Key Environmental Performance Indicators.

#### 2. Outline of the assurance procedures performed

We have performed limited assurance procedures<sup>3</sup> in accordance with the 2003 International Standard on Assurance Engagements (ISAE) 3000: Assurance Engagements other than Audits or Reviews of Historical Financial Information of the International Federation of Accountants (IFAC) and the 2008 Practical Guidelines for the Assurance of Sustainability Information of the J-SUS. Therefore, our assurance engagement provides relatively limited assurance compared to a reasonable assurance engagement.

#### 3. Conclusion

Based on the assurance procedures performed, nothing has come to our attention that causes us to believe that the Key Sustainability Performance Indicators have not been measured and calculated accurately in accordance with the reporting standards of sustainability reports, that material information has not been disclosed in accordance with the 2011 Sustainability Reporting Assurance and Registration Criteria, or that the Company's self-declaration on the GRI application level does not conform to the application level criteria stipulated by the GRI guidelines, in all material respects.

#### 4. Independence

Our assurance is compliant with the Ethics Regulations of J-SUS and there is no financial interest between the Company and us.

Akihiro Nakagome Representative Director

Ernst & Young ShinNihon Sustainability Institute Co., Ltd.

<sup>1</sup> The scope of material environmental information is stipulated in the 2011 Sustainability Reporting Assurance and Registration Criteria of the Japanese Association of Assurance Organizations for Sustainability Information (J-SUS).

<sup>2</sup> The reporting standards refer to the 2007 Environmental Reporting Guidelines of Japan's Ministry of the Environment, the 2006 Sustainability Reporting Guidelines of the Global Reporting Initiative(the GRI), and the 20011Sustainability Reporting Assurance and Registration Criteria of J-SUS in the context of specifying the material subject to disclosure and the application level criteria stipulated by the GRI guidelines

<sup>3</sup> We have mainly reviewed and assessed the Company's procedures for the collection and aggregation of data, performed analytical procedures, as well as recalculated and reconciled them with the corroborating evidence on the quantitative sustainability information on a test basis. In addition, we have mainly made inquiries and reviewed related records to verify the qualitative information and whether or not the Company's self-declaration on the GRI application level conforms to the application level criteria stipulated by the GRI guidelines

#### Ensuring the Reliability of Information Disclosure

The 2011 Fujitsu Group Sustainability Report has been reviewed by an independent body, Ernst & Young ShinNihon Sustainability Institute Co., Ltd., whose independent assurance report is appended. Furthermore, this report has been duly granted the sustainability report audit and registration mark stipulated by The Japanese Association of Assurance Organizations for Sustainability Information, which assures that the reliability of the information presented here meets its standards. The Japanese Association of Assurance Organizations for Sustainability Information (in Japanese) http://www.j-sus.org/index.htm



Sustainability report audit and registration mark

This report corresponds to GRI Application Level B+.

A GRI guideline comparison table can be found on the following website. http://www.fujitsu.com/global/about/environment/ communication/report/2011/

### **FUJITSU LIMITED**

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You can also contact us via the Fujitsu "Environmental Activities" website. http://www.fujitsu.com/global/about/environment/ contact.html

#### Legibility Considerations

We have reviewed this report using our ColorSelector tool to choose a highly accessible color combination so that the text and figures will be as legible as possible to the widest range of readers.

#### Consideration for the Environment

This Corporate profile uses FSC®-certified Paper, VOC-free ink, and a waterless printing process that generates no harmful liquids.

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AL0061-1-Nov. 2011 AP



J-SUS



The Fujitsu Group Environmental Emblem

Sustainability report audit and registration mark



