Fujitsu Group Sustainability Report 2012

Detailed version

FUJITSU

The Power of ICT
for sustainability and beyond

shaping tomorrow with you

CONTENTS

How Can ICT[*1]
Contribute to the Earth and Society's Future toward 2020?

Forty years have passed since the Club of Rome sounded an alarm about population growth and environmental pollution in its report The Limits to Growth. [*2]

Twenty years have passed since the first Earth Summit focused on the environment and sustainable development was held in Rio de Janeiro.

The global financial crisis, heightened concerns about climate change, and other developments have put us at a crossroads.

The time has come to search for a new paradigm, to move away from the age of striving to maximize profit and growth at any cost.

Key Considerations Looking to 2020
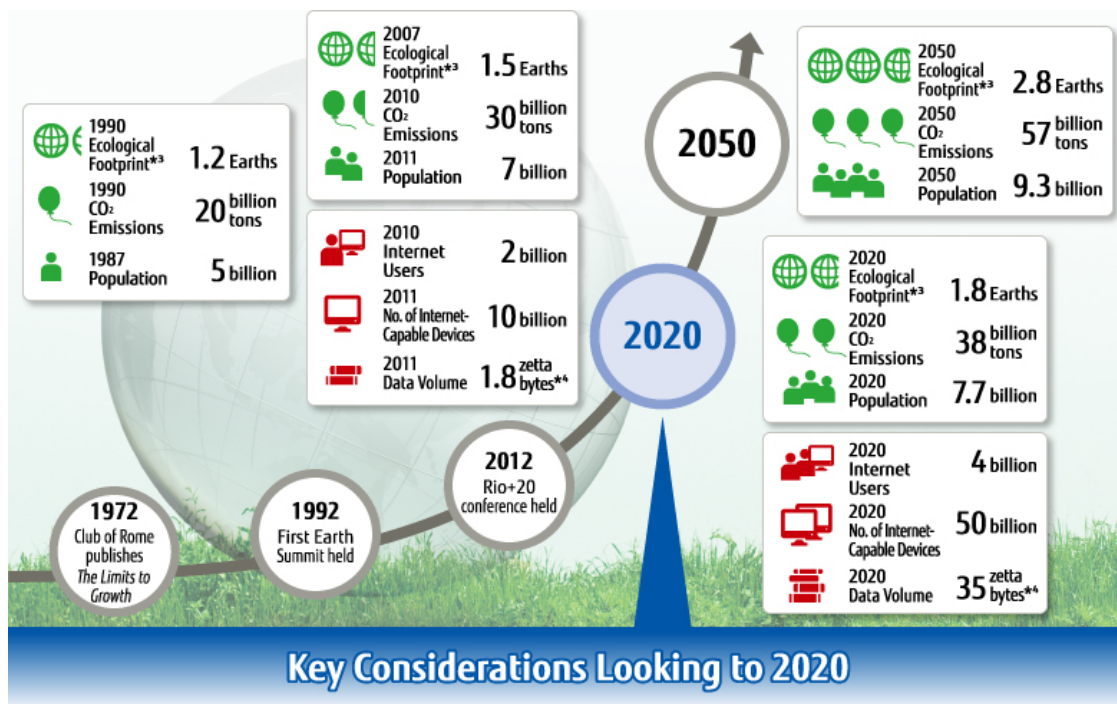
Increasingly Complex Issues

With the population having grown to 7.7 billion in 2020, will the human race be able to balance securing food and energy with reducing greenhouse gas emissions? Can ICT help solve problems in emerging nations like starvation and poverty and issues in industrialized nations such as demographic aging?

A flatter world with increasingly overpopulated countries will tie in to a host of issues. Population growth, for example, will exacerbate the problems of climate change, poverty and starvation. A number of other issues must be resolved in an integrated manner to control this effect, such as improving primary education and sanitation, and lowering the infant mortality rate. With the world's population rising to 7.7 billion in 2020, CO_2 emissions need to have peaked out by then for any hope of avoiding a potentially disastrous 2C or more rise in temperature (source: UNEP). At the same time, a growing elderly population in industrialized nations and other rapid demographic changes are emerging, triggering new social problems.

Super-Connected World

Having doubled to 4 billion, will Internet users have even greater opportunities than now? Will ICT be used to bring about a society with a level playing field for all to pursue possibilities?

Globalization and the ICT revolution have ushered in the era of the super-connected world. In 2020, the economic scale of emerging markets such as the BRICs, Mexico, Indonesia and Turkey is projected to overtake that of the G7 industrialized nations (source: PwC). While the global economy led by emerging nations will grow, the situation will spawn a new economic environment in advanced nations as the outflow of employment for mid-career and young hires causes disparities to widen. Mobile phones, SNS and other innovations,

meanwhile, are enhancing the ability to send information, allowing people to form deeper connections. While this ICT-driven empowerment is making individuals freer, the world is facing new governance challenges as demonstrations and violent opposition become more frequent.

Dramatically Changing Cyber Society

Amid a surge in Internet-capable devices to some 50 billion units, will ICT infrastructure run stably? Will ICT stay a step ahead of cyber-attack threats, supporting safe and secure living?

Cyber society will continue growing at a dramatic pace. The estimated number of Internet users worldwide will top 4 billion in 2020 (source: BCG data), while the number of Internet-enabled devices is projected to reach 50 billion units (sources: Cisco, Ericsson). ICT will deliver a host of opportunities, among them enhanced productivity and the creation of new jobs. However, the gaps between those who have these benefits and those who do not will widen. Damages caused by cyber-attacks will reach \30 trillion, and the burden associated with them will grow. Constant effort is needed to maintain the safety and security of this cyber society to ensure that the benefits of ICT reach the greatest number of people possible.

*1 ICT:
Information and Communications Technology

*2 The Club of Rome's The Limits to Growth:
A report on research conducted by Dennis L. Meadows, PhD and others from the Massachusetts Institute of Technology using computer simulations. The report warns that growth of the human race will reach its limit within 100 years if population growth and industrialization trends continue unchanged.

*3 Ecological footprint:
An index showing how much impact our daily lives have on the environment. We show the ecological footprint here in number of planets, assuming people worldwide maintain living standards on par with advanced nations. Our figures are based on the WWF's Living Planet Report 2012.

*4 Zettabyte:
A unit of information storage. 10 to the power of 21 (one trillion gigabytes).

The Fujitsu Group Will Contribute to the Sustainable Development of Society and the Planet through Its Business Activities

"Deliver opportunities and security to as many people as possible worldwide through ICT" That is our social responsibility.

The Fujitsu Group believes ICT is all about "realizing sustainable human advancement."

One thing that stands out about the Fujitsu Group is our ability to tie world-leading, user-friendly technology to global and social sustainability.

Human Centric Intelligent Society:
Realizing Societies Where People Can Live with Peace of Mind

Embracing the Challenge of Transforming Society through the
Three Powers of ICT in the Run-up to 2020

The Fujitsu Group has identified fields to focus on in the run-up to 2020. These were chosen with an eye to "Addressing Society's Challenges through Corporate Activities," one of the priorities of the Group's CSR Policy, and through discussions with outside experts.

| 1 | The Power to Shape the Future | 2 | The Power to Provide Equal Opportunities to All People | 3 | The Power to Support Safe and Secure Living |

1. The Power to Shape the Future
Solving difficult global challenges and social issues through computing

We will use global cutting-edge computing to generate simulations of tough problems facing humankind such as climate change, resource shortages, and disaster damage, and employing them to help find solutions.In addition, we will create ICT-enabled solutions for various issues affecting cities, food, medicine, education, and more.

- Demonstrate world-class technology leadership to step as far as possible into the future
- Expand the provision of solutions designed to address priorities (food, healthcare, education, etc.)
- Achieve our environmental vision, a low-carbon, prosperous society

2. The Power to Provide Equal Opportunities to All People
Develop user-friendly terminals and interfaces, along with frameworks for promoting ICT implementation in developing countries

In order to enable as many people worldwide as possible to leverage ICT in pursuing their potential, we will open the doors to cyber society, providing interfaces that are easy to use, and offering systems and schemes to support the deployment of ICT in developing countries.

- Develop terminals and devices targeting 4 billion Internet users
- Execute businesses that provide opportunities on a global basis
- Conduct field surveys in developing countries and develop partnerships

3. The Power to Support Safe and Secure Living
Ensure stable operation of social ICT infrastructure and cyber security

We will help to protect people's secure living environments through the stable operation of ICT systems that serve as the infrastructure underpinning economic and social activity. Furthermore, we will provide ICT solutions and strengthen our ties with relevant organizations to cope with rapidly expanding cyber-attacks and other security issues.

- Help to build a value-creation platform, eyeing an era when virtually everything is connected to the Internet
- Achieve stable operation of world-class ICT systems
- Develop and strengthen cyber security solutions

Message from Management

Fujitsu Limited President:
Masami Yamamoto

[Discussion]
Sadako Ogata and
Masami Yamamoto

Fujitsu Limited President: Masami Yamamoto

The Fujitsu Group's Businesses Exist for the Benefit of Society and Are the Embodiment of CSR

No company, no matter how spectacular, can continue to conduct business without the Earth that we all inhabit. We believe that the essence of CSR is the transformation of business activities to suit the surrounding environment so as to leave a beautiful planet for our children.

I believe that the Fujitsu Group's businesses exist for the benefit of society, and that our business activities themselves are the embodiment of CSR. This Sustainability Report offers a look back on our activities during the previous fiscal year, as well as a glimpse ahead to 2020 to present a vision of the role that ICT should play.

Last year's Great East Japan Earthquake and the flooding in Thailand have taught us that safety and security cannot be taken for granted. The effects of climate change and the resource depletion that the world population explosion has triggered are just some of the factors indicating that the sustainability of the planet itself is sinking into crisis.

We Believe in the Power of ICT to Change Society for the Sustainability of the Planet

The Fujitsu Group, as stated in its medium-term vision, aspires to achieve the realization of a Human Centric Intelligent Society, a prosperous future in which people can live peacefully and securely. ICT supports myriad aspects of our lives, such as transportation, finance, food and energy. I believe in the power of ICT to transform society.

One example of this is achieving sweeping advances in computing to simulate future generations and bring us one step closer to a prosperous future society. While providing new value, we will, at the same time, enhance the energy efficiency of ICT itself.

The recent explosive proliferation of smartphones, social networking services and other technologies has given us a close-up view of both the bright and dark sides of the cyber society. As a leading company in ICT, we will work in cooperation with various entities to contribute to the creation of a safe and secure cyber society environment.

The business value chain has no borders. The Fujitsu Group, as a participant in the UN Global Compact, will support its 10 principles, listen to the views of stakeholders around the world, and press forward with the creation of a prosperous future.

[Discussion] Sadako Ogata (Special Advisor to the President, Japan International Cooperation Agency) and Masami Yamamoto (President, Fujitsu Limited)

With the advancement of the global economy, coordinated action between governments, international institutions and corporations is vital for the resolution of global issues. We asked Sadako Ogata, a respected world authority in the field of international contributions and Special Advisor to Japan International Cooperation Agency (JICA), about the role that ICT should play in this area.

"The sustainability of our planet is the biggest issue that humanity faces today." - Masami Yamamoto

Yamamoto The sustainability of our planet is the biggest issue that humanity faces today. Along with the population explosion and climate change, there are also concerns about the depletion of many types of resources, including food, water and energy. With ICT driving further globalization, and the world becoming more interwoven, I sense that the role for ICT to play is growing larger. Are global ties also becoming stronger in the economic development field where JICA operates?

Ogata JICA has provided development assistance to various countries, and, during the Great East Japan Earthquake, I was surprised at the large amount of money and goods received from developing countries that are themselves facing difficult situations. There have been proposals such as rebuilding the disaster-stricken parts factories in Vietnam, while the flooding in Thailand revealed that damage to the manufacturing base in just one country can reverberate throughout the global supply chain. We are entering an era of internal and external integration, in which there is no division between domestic and foreign issues.

Yamamoto ICT crosses borders to support people's lives, and I am also strongly aware of the global connections. Fujitsu's ambition is to provide as many people as possible around the world with opportunity and security through ICT. ICT, as a common global language, will make it possible to undertake many types of challenges uniformly across regions. We think the ideal society is one in which people everywhere use ICT to open pathways to their own futures.

Ogata JICA has a vision of "Inclusive and Dynamic Development" through which the fruits of economic growth extend to all people. In Thailand, where the flooding occurred, for example, while some regions have prospered as global manufacturing centers, difficult living conditions remain in rural areas. Since the information revolution has exponentially broadened peoples' expectations, this situation could lead to anti-government uprisings such as the Arab Spring. Leaders need to be constantly aware of such gaps.

Yamamoto The scope of ICT is steadily expanding, and is even being utilized in areas like agriculture. For example, by using sensors to collect data on things such as climate and soil conditions, which used to depend on the intuition of farmers, and storing it in the cloud, we can generate a new type of wisdom. If systems like this are extended to agriculture in developing countries, it will enrich the lives of people there, and also help to resolve global food issues. Fujitsu has set out a vision of a Human Centric Intelligent Society to bring about a prosperous future, and will work to pursue this goal over the long term.

> "Many developing countries have expectations for Japanese ICT and other types of cutting-edge science and technology." —————— Sadako Ogata

Ogata JICA provides not only the hardware side assistance, such as establishing technical and engineering colleges, but also many other softer forms of aid, such as teacher training and development of educational materials. Many developing countries have expectations for Japanese ICT and other types of cutting-edge science and technology. JICA and private companies work in partnership to resolve development issues in these countries, while, at the same time, we nurture future markets together. I hope that Fujitsu will join us in this partnership.

Yamamoto I believe that ICT has the power to change the world. There are many ways in which ICT will allow developing countries to bypass the growing pains of the traditional development process, such as eliminating disparities by providing opportunities without requiring the movement of people. Many companies have shown that they are motivated by nothing more than profit. Fujitsu is not one of them, and we will continue to extend the limits of Fujitsu's contribution to the world.

Note: Japan International Cooperation Agency (JICA) made a fresh start in October 2008 when it took over the overseas economic assistance operations of Japan Bank for International Cooperation (JBIC) and a portion of the grant aid provided by Japan's Ministry of Foreign Affairs. The New JICA is a comprehensive international support institution providing technical assistance, loan assistance and grant aid - the three means of ODA (Official Development Assistance) - in an integrated manner.

Profile of Sadako Ogata
Sadako Ogata was born in 1927. After graduating from the Literature Department at the University of the Sacred Heart in Tokyo, she received a master's degree from Georgetown University and a Ph.D. in political science from the University of California, Berkeley. In 1976, Ogata joined the Permanent Mission of Japan to the United Nations, later serving in such posts as Envoy Extraordinary, Chairman of the UNICEF Executive Board, and Representative of Japan to the UN Commission on Human Rights. In 1990, Ogata was selected by the UN General Assembly as the 8th United Nations High Commissioner for Refugees, serving for 10 years beginning in 1991. In October 2003, Ogata assumed the position of President of the Japan International Cooperation Agency (JICA), and, since April 2012, has served as a JICA special adviser.

Japan International Cooperation Agency (JICA)
JICA is an independent administrative institution established to promote international cooperation and benefit the sound development of Japan and the international economic community through contributions to the economic and social progress, as well as the reconstruction and economic stability, of developing regions of the world.

Fujitsu Envisions Smart Cities

| Making a Secure, Prosperous Society a Reality | Initiatives in Japan / Overseas Initiatives | Supporting reconstruction |

Making a Secure, Prosperous Society a Reality

The Fujitsu Group will promote smart cities as an impetus for social change

In line with its long-term vision of realizing a Human Centric Intelligent Society, the Fujitsu Group is striving to leverage ICT to create a society where people's lives are prosperous and more secure.
Amid an ongoing population shift to cities worldwide, we are aggressively promoting smart cities as a driver for social transformation.

Fujitsu's Smart City Vision

There are many problems around the globe that require immediate efforts for resolution. Among others, environmental deterioration and an array of resource shortages in increasingly crowded urban centers has become an area of particular concern. It is projected that 60% of the global population will live in cities in 2030, consuming 73% of the world's total energy. This trend is driving the need for "smart cities," innovative urban developments that leverage ICT for the management of natural energy consumption at the community level and other technologies to balance environmental stewardship with comfortable living.

In the quest to quickly rebuild areas devastated by the Great East Japan Earthquake, there is a greater desire than ever in Japan for progressive community building delivering safety and peace of mind to daily life.

A new, sustainable economic growth model is needed to reenergize the Japanese economy. Furthermore, it is imperative that social problems like demographic aging and fewer children are addressed at the community level.

Against this backdrop, the Fujitsu Group is working to harness ICT to make smart cities a reality, with a focus on energy, the environment and improving the quality of life for urban residents.

Smart City Goal: Social Value Cycle Model

It takes more to build a smart city than simply using ICT to link and manage social infrastructure. Providing new value and services that residents truly need is also essential.

Generating the knowledge to arrive at solutions by continuing to closely examine local issues, while putting this information into the equation when analyzing the enormous amount of data from smartphones, various sensors, meters, and other devices, is a crucial task. Achieving it requires that Fujitsu put ICT to work to establish a sustainable social value cycle and create new innovations.
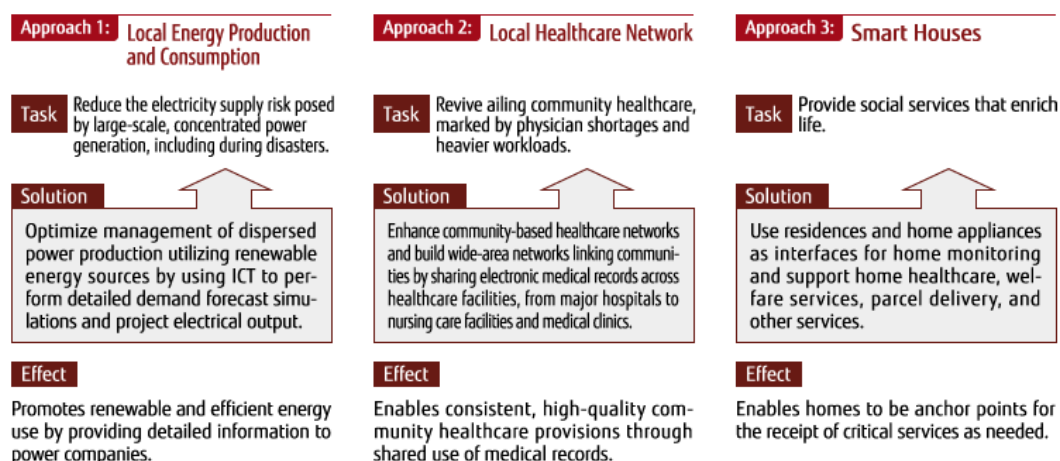
For example, local production for local consumption utilizing renewable energy could raise energy costs, but at the same time overall social costs could be reduced by using ICT to make medical and nursing care services more efficient. It is also important to leverage ICT in tourism and other businesses to revitalize communities and towns.

Deployment of Problem Solving Specialists

Established in 2007, Fujitsu's team of Field Innovators is now some 400 strong. Field Innovators are deployed to customer worksites to make issues visible by utilizing ICT and promoting improvement and innovation in problem areas.

Although Field Innovators have primarily provided services to companies, the practical knowledge gained through these activities will likely play a role in resolving various problems that local communities face.

We are already working in fields like those discussed below, and will shore up these initiatives to come closer to making smart cities a reality.

Approach 1: Local Energy Production and Consumption	**Approach 2:** Local Healthcare Network	**Approach 3:** Smart Houses
Task Reduce the electricity supply risk posed by large-scale, concentrated power generation, including during disasters.	**Task** Revive ailing community healthcare, marked by physician shortages and heavier workloads.	**Task** Provide social services that enrich life.
Solution Optimize management of dispersed power production utilizing renewable energy sources by using ICT to perform detailed demand forecast simulations and project electrical output.	**Solution** Enhance community-based healthcare networks and build wide-area networks linking communities by sharing electronic medical records across healthcare facilities, from major hospitals to nursing care facilities and medical clinics.	**Solution** Use residences and home appliances as interfaces for home monitoring and support home healthcare, welfare services, parcel delivery, and other services.
Effect Promotes renewable and efficient energy use by providing detailed information to power companies.	**Effect** Enables consistent, high-quality community healthcare provisions through shared use of medical records.	**Effect** Enables homes to be anchor points for the receipt of critical services as needed.

The Fujitsu Group will use know-how and technology it has amassed over the years to build smart cities.

Head of Smart City Promotion Unit
Ken-ichi Yamagishi

An assortment of ICT will be harnessed to enable smart cities.

This will mean putting into play, for example, sensors to collect data on household and corporate electricity consumption, local weather, and other information; clouds and other integration platforms to pool the massive amounts of information obtained; and tools to immediately analyze and utilize the consolidated data. Efficient, precise social infrastructure management also calls for algorithms to analyze data and the ability to build architecture enabling discrete ICT functions to work together seamlessly. With a solutions track record spanning a wide spectrum of industries and regions, Fujitsu has comprehensive technological prowess in the fields that will serve as the foundations for smart cities.

Going forward, we will remain dedicated to helping establish smart cities and sustainable communities, while building firm partnerships with municipalities and other business entities.

Initiatives in Japan / Overseas Initiatives

Initiatives in Japan

Multiple projects and field tests are underway toward smart city realization. Fujitsu is currently involved in smart city projects in around 20 communities worldwide, where it is reinforcing efforts to build prosperous, secure communities.
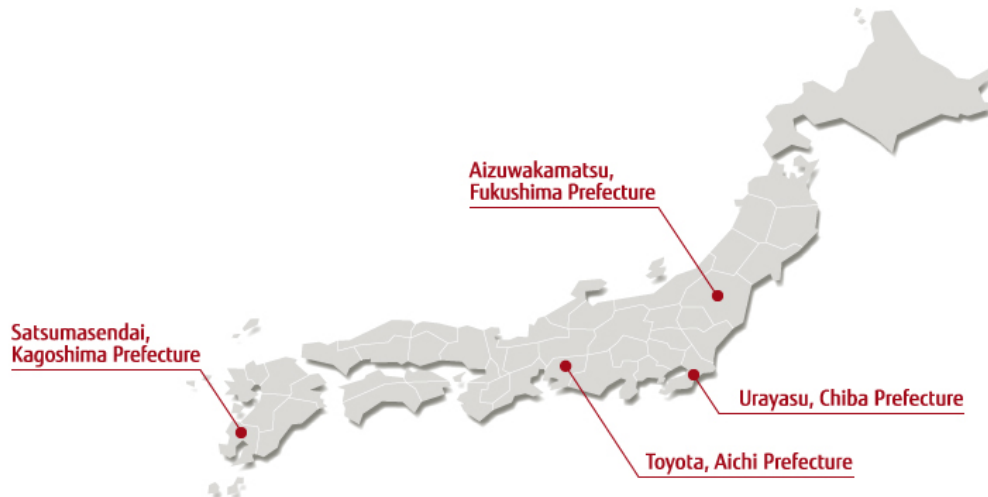
Aizuwakamatsu, Fukushima Prefecture

In collaboration with the city of Aizuwakamatsu and Tohoku Electric Power Co., Inc., Fujitsu has begun formulating business plans for the creation of a smart community in Fukushima Prefecture's Aizuwakamatsu region. Dubbed the "Aizuwakamatsu Area Smart Community Deployment Project," this initiative has been selected as part of the Ministry of Economy, Trade and Industry's "FY 2011 Project to Support the Spread of Smart Communities" and "FY 2011 Promoting the Introduction of Smart Communities." Project goals include developing a community that uses a combined heat and power system with distributed biomass cogeneration, promoting the deployment of renewable energy sources in tandem with local disaster preparedness measures, and building an energy control center.

Urayasu, Chiba Prefecture

Fujitsu is participating in an industrygovernment-academia consortium, promoting the smart city project as part of steps to achieve Urayasu's vision to become a green city.

Toyota, Aichi Prefecture

Fujitsu is working together with Toyota Motor Corporation on demonstration tests for energy data management under the "Next-Generation Energy and Social Systems Demonstration Areas" program launched in 2010 by the Ministry of Economy, Trade and Industry.

Satsumasendai, Kagoshima Prefecture

The Satsumasendai City Next-Generation Energy Vision Development Committee was established to advance urban development by leveraging next-generation energy sources. Fujitsu will help the city of Satsumasendai put together its vision and take part in smart grid field trials, contributing to the realization of a smart community.

Overseas Initiatives   Saudi Arabia

The Fujitsu Group is working to transform industrial estates managed by the Saudi Industrial Property Authority (MODON) into smart cities.

In line with its national strategy of industrial diversification and industrialization, Saudi Arabia is aggressively pursuing industrial complex development. MODON plans to raise the number of its industrial estates from the current 28, including those under development, to 40 by 2015. However, environmental problems are emerging with the rapid industrialization. In fact, the two field surveys we conducted in fiscal 2011 showed serious air and water pollution problems at the Dammam 2nd Industrial City located on the Persian Gulf.

Dammam 2nd Industrial City Field Survey

Turning things around calls for a total solution built on our previous successes in tackling pollution in Japan, including environmental pollution monitoring, environmental system design, sustainable environmental management model creation, and eco-city master plan formulation.

We began by working on the critical task of detailed engineering of an environmental monitoring system, looking to bring it online in fiscal 2013. Moving ahead, we will build an environmental improvement system and a cloud system covering industrial estates nationwide as part of additional steps to bring about environmentfriendly eco-cities.

Supporting reconstruction provided opportunities to consider future issues in Japan

To support recovery and reconstruction in disaster-stricken areas, the Fujitsu Group established an organization dedicated to locally-driven initiatives to create communities that will be great places to live for years to come.

Getting a feel for the situation on the ground as a starting point for understanding local needs

Last year's major disasters brought Japan face to face with problems once believed to be still a ways off, including care for senior citizens living alone in a graying society, a safe and secure energy supply, and a balanced food supply.

On December 22, 2011, Fujitsu established the East Japan Reconstruction and Regeneration Support Unit to provide ongoing support to communities and residents with recovery and rebuilding after the Great East Japan Earthquake. The unit has branches in the three prefectures hit hardest by the disasters-Iwate, Miyagi, and Fukushima.

Having engaged in dialogue with many people met along the way, including those from municipalities, we feel that strengthening mutual ties is what matters most. Fujitsu believes the most pressing problems that need to be solved in disaster-stricken areas will naturally surface if relationships can be built where anything is open to frank discussion.

Senior Director
East Japan
Reconstruction and
Regeneration Support
Unit
Shinsuke Hamada

Local Activities Bring Needs into Focus

The Fujitsu Group has provided on-the-ground assistance in many ways to disaster-stricken areas since the earthquake and tsunami. In the media and elsewhere, there is talk about gradual progress being made from recovery to rebuilding. Actual field conditions, however, suggest there is still a long way to go.

Even now, more than a year after the disasters-many people living in temporary housing have no homes to return to. Lots of temporary housing residents have become isolated, having lost important community ties in their neighborhoods. Deteriorating health among senior citizens living in isolation and other people living in totally altered environments is another major problem. While local governments, NPOs, and others are doing everything they can to help, the scope of initiatives is currently restricted in part by limited human resources. We think health management frameworks based on ICT-enabled safeguards and vital data[1] monitoring are an effective way to make it easier to lighten the burden on people providing support in such environments.

The tsunami took the lives of many in coastal areas. Numerous people lost their lives in the line of duty, having returned to close floodgates along the coast. If only to ensure that such misfortune is not repeated, remote closing of floodgates will likely be required in the future.

Disaster-stricken municipalities face growing workloads, with the responsibility of recovery and reconstruction now added to regular operations. Despite being victims themselves, these staff members continue to perform their duties with a strong sense of mission; but the mental and physical strain is enormous. Using ICT to make operations more efficient would likely reduce the physical burden, and keeping abreast of the staff's mental status will facilitate appropriate mental care.

Fujitsu is building strong relationships with municipalities and residents in the areas damaged to get to the real issues. We will then devise the best path to resolution, effectively employing ICT to this end.

We believe this is the mission of the Fujitsu Group. We will continue to seek a realistic view at the ground level as we work vigorously to help customers and local residents in disaster-stricken areas get back on their feet and move toward a new beginning.

*1 Vital data:
Vital data refers to biological information like temperature, pulse, and blood pressure.

Our Approach to CSR

For the Fujitsu Group, Corporate Social Responsibility (CSR) means putting the Fujitsu Way into practice to address a variety of social issues and contribute to a sustainable, networked society.
Through close communications with its various stakeholders, Fujitsu works to remain highly sensitive to social issues, and to conduct responsible corporate activities.

Our Approach to CSR

Responding by putting the Fujitsu Way, our corporate philosophy, into practice

Since its establishment in 1935, Fujitsu has contributed to the development of public infrastructure through innovative information and communications technologies. The ideas and spirit of successive leaders who paved the way for the Fujitsu Group's success are condensed and codified in the Fujitsu Way, which forms the core of our management practices.

For the Fujitsu Group, Corporate Social Responsibility (CSR) means putting the Fujitsu Way into practice to address a variety of social issues and contribute to a sustainable, networked society. This requires management to focus not only on financial results, but also on operational excellence through sound corporate governance, and the integrity of the ethical, social, and environmental aspects of business.

With this in mind, the Group promotes a global management style based on the Fujitsu Way, maintaining close communications with all of its various stakeholders. We work to remain highly sensitive to social issues, and to take responsible corporate action.

*1 The Fujitsu Group's Stakeholders:
The Group sees its customers, employees, business partners, shareholders and investors, and global and local communities as its stakeholders. Government authorities, NPOs, and NGOs are particularly important stakeholders in these global and local communities.

- FUJITSU Way
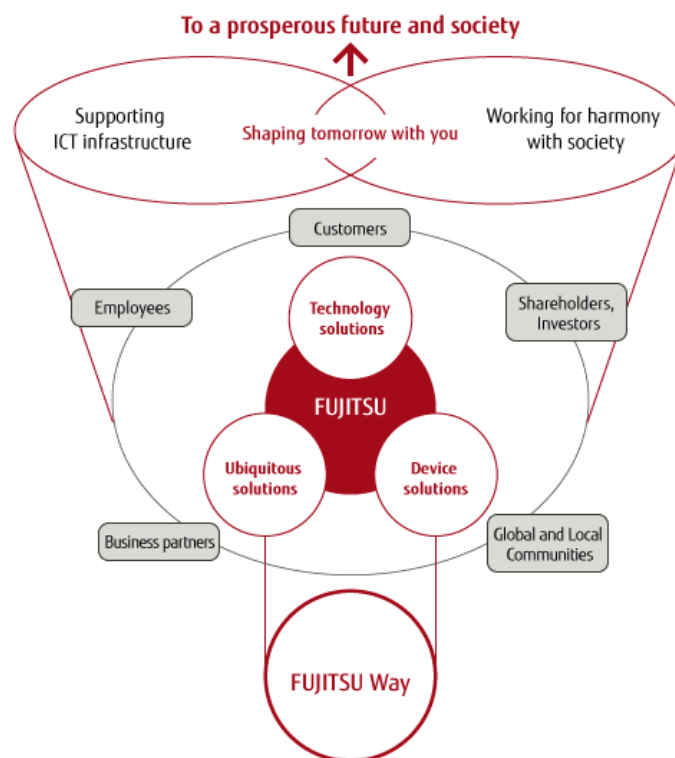
Our Corporate Philosophy "FUJITSU Way"

The Fujitsu Way embodies the philosophy of the Fujitsu Group, our reason for existence, values and the principles that we follow in our daily activities.

Introduction

On April 1, 2008, Fujitsu announced a fully revised 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 global and local societies.

The Elements of FUJITSU Way

Fujitsu Way comprises four core elements:
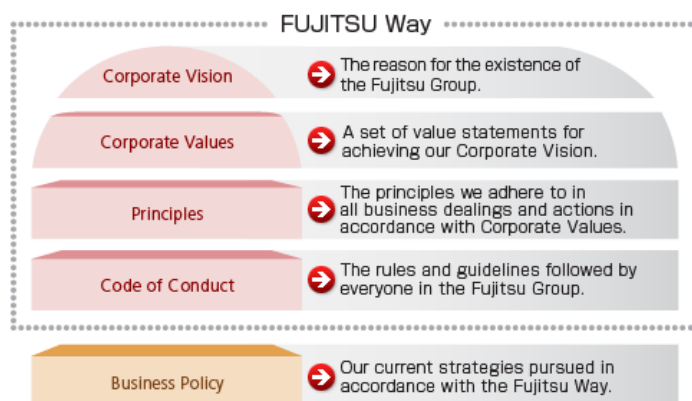
Corporate Vision

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.

Corporate Vision »

Corporate Values

What we strive for:

Society and Environment	In all our actions, we protect the environment and contribute to society.
Profit and Growth	We strive to meet the expectations of customers, employees and shareholders.
Shareholders and Investors	We seek to continuously increase our corporate value.
Global Perspective	We think and act from a global perspective.

What we value:

Employees	We respect diversity and support individual growth.
Customers	We seek to be their valued and trusted partner.
Business Partners	We build mutually beneficial relationships.
Technology	We seek to create new value through innovation.
Quality	We enhance the reputation of our customers and the reliability of social infrastructure.

Corporate Values »

Principles

Global Citizenship
We act as good global citizens, attuned to the needs of society and the environment.

Customer-Centric Perspective
We think from the customer's perspective and act with sincerity.

Firsthand Understanding
We act based on a firsthand understanding of the actual situation.

Spirit of Challenge
We strive to achieve our highest goals.

Speed and Agility
We act flexibly and promptly to achieve our objectives.

Teamwork
We share common objectives across organizations, work as a team and act as responsible members of the team.

Principles »

Code of Conduct

- We respect human rights.
- We comply with all laws and regulations.
- We act with fairness in our business dealings.
- We protect and respect intellectual property.
- We maintain confidentiality.
- We do not use our position in our organization for personal gain.

Code of Conduct »

Business Policy

- 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.

Business Policy »

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 enhancement of corporate governance. Fujitsu Way leaders are selected from each Group company or business unit to work with management in referencing the Fujitsu Way in their messages to employees, and to disseminate it in ways appropriate to their organizations, in an effort to promote responsible corporate activities.

Working with Fujitsu Way leaders

To ensure deeper dissemination of the Fujitsu Way within the Fujitsu Group, training sessions and annual joint conferences to reconfirm the activity policy for the year are held on an ongoing basis.

Training for Fujitsu Way leaders in FY 2011

In fiscal 2009, a training session was held for 250 Fujitsu Way leaders from Group companies in Japan, followed in fiscal 2010 by a joint conference to reconfirm the activity policy for the year. At the conference, participants from each organization shared information on best practices in promoting dissemination, obstacles encountered during the course of activities, and proposed solutions.

From October 2011 to February 2012, training primarily for newly appointed Fujitsu Way leaders was held. Some 110 people took part in the training, which included lectures on the intent underlying the Fujitsu Way, and debates of how best to take advantage of dissemination activities at today's worksites as part of steps to share knowhow. The training also included letting participants get a feel for the starting point for the Fujitsu Way embodied in historic Fujitsu products on display at the Fujitsu DNA exhibition hall, an employee training center at the Numazu Plant.

Implementation of e-Learning

An e-Learning program designed to boost understanding of the Fujitsu Way was implemented for Fujitsu Group employees worldwide. The program aims to help employees hone their approach to putting the Fujitsu Way into practice and to raise awareness among those who take part.

The e-Learning program was uniformly instituted in Japan in the first half of 2009, with the Group's roughly 100,000 domestic employees deciphering the words of senior management over the years to reconfirm the origins of the Fujitsu Way. Outside of Japan, we began offering the e-Learning program in 16 languages from FY 2011. To date, some 35,000 employees overseas have taken part in the program, for a cumulative total of 61,700 hours spent on employee training worldwide as of May 31, 2012. Plans call for adding more languages to allow a greater number of employees to take part in e-Learning in their native language.

A survey of program participants indicates that 89% have resolved to put the Fujitsu Way into practice.

Providing more Fujitsu Way tools

Wallet-sized cards and booklets explaining the Fujitsu Way are distributed to Group employees around the world, with posters also posted at workplaces. In addition, a video of President Masami Yamamoto discussing the underlying meaning of the Fujitsu Way following his appointment in April 2010 is available on the corporate intranet.

Division Activities to Disseminate the Fujitsu Way

Fujitsu Way leaders, in cooperation with managers, spearhead efforts to advance activities for disseminating the Fujitsu Way among employees. In conducting activities, leaders and managers seek ways to clarify connections between each division's own policies and objectives and the Fujitsu Way. They strive to encourage dialogue and other ways to raise awareness and a desire to take part among employees. These activities have produced clear improvements on several employee satisfaction survey items, such as "Good teamwork is evident in achieving targets and objectives" and "Policies in the organization I belong to are clearly defined."

Examples of Dissemination Activities

FUJITSU UNIVERSITY, Ltd.

We instituted a "Fujitsu Way Discussion Meeting" in FY 2009. As a follow-up, in FY 2010 we convened a "Fujitsu Way Reflection Meeting." The purpose of the meeting is to cultivate a sense of unity in-house in the wake of the "Fujitsu Way Discussion Meeting" through shared awareness of both individual and team actions and efforts to create organizational culture across Fujitsu, coupled with open dialogue superseding organizational barriers and hierarchy. The meeting was open to all employees, including temp workers and executives, and yielded the results highlighted below.

- The dialogue enabled employees to gain a clear picture of how to put the Fujitsu Way into practice in their own tasks, which further raised the level of understanding and awareness of the Fujitsu Way.

- Each employee now had time to firmly reflect on their own tasks, and was able to clearly reconfirm the individual actions they should be taking.

- Dialogue open to everyone from executives to temp employees heightened the sense of unity and camaraderie across Fujitsu.

Comments from Fujitsu Way leaders (Secretariat)

Many participants have commented that the rich debate has deepened their own understanding of the Fujitsu Way. With that said, we continue working to resolve issues that have been pointed out. Along with regularly offering opportunities like this, we are considering developing them as a package for further disseminating the Fujitsu Way within the Fujitsu Group.

Members introducing themselves using Lego® blocks

Presenting practical examples as a story

Fujitsu Limited SBG Voluntary Improvement Promotion Office

Fujitsu has advanced voluntary improvement activities since FY 2007. In order to support the development of employees capable of taking proactive steps to achieve organizational objectives, in FY 2011 we carried out a review of these activities anchored based on the Fujitsu Way Code of Conduct. These activities were then promoted by each group responsible for offering the solutions businesses (social infrastructure, finance, public and regional, business support). Through the cooperation of Fujitsu Way leaders and managers at each worksite, improvement activities onsite are being revitalized, with younger employees also being drawn in to the effort.

Lectures for managers and personnel in charge of promoting activities at each worksite teach the meaning behind the words in the Fujitsu Way through the sayings and speeches of past members of senior management. Participants then consider how best to take advantage of improvement activities at their own worksites to put the Fujitsu Way into practice. By reestablishing links between the existing activities organizations usually perform and the values outlined in the Fujitsu Way, we are cultivating a culture at worksites that will enable employees to aim for higher targets in a more dynamic way.

CSR Policy

Contributing to the sustainable development of society and the planet

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.

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.
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 short- and medium-term objectives 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.

Two dialogue sessions were also held with stakeholders, in which they were represented by outside experts, deepening our understanding of their needs and expectations.

Five Priority Issues

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

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.
- **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.

Strengthening the Foundation of CSR Activities

To contribute to 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, disability, or values to enable individuals to grow with the company.
- **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.

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:
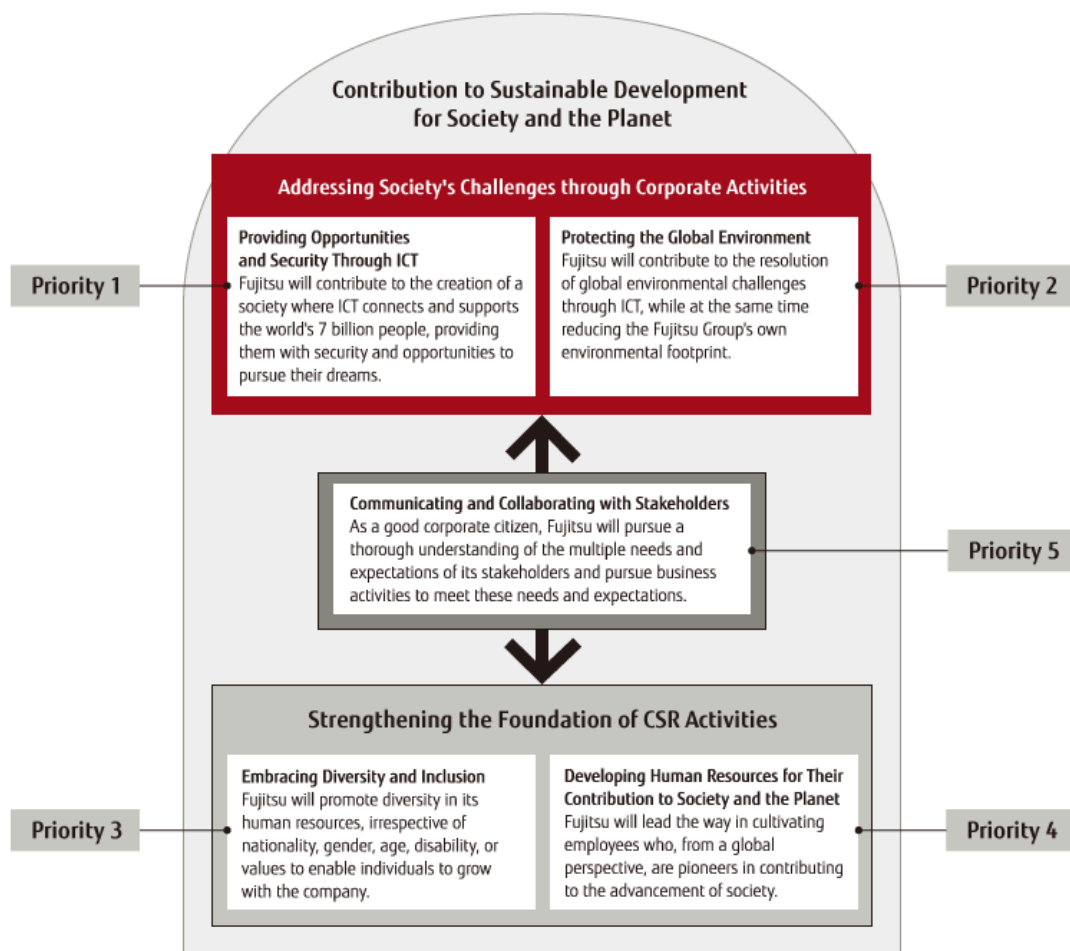
Organization Promoting CSR

Company-wide Committees

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.

CSR Promotion Task Force

Comprised of members from the business units highlighted below, the CSR Promotion Force sets up key performance indicators (KPIs), distributes information, and investigates new examples of benefits to society and businesses that will promote sustainability.

CSR Promotion Task Force

- Global Business Management Unit
- Corporate Brand Office
- FUJITSU Way Unit
- Diversity Promotion Office
- Legal Unit
- Corporate Environmental Strategy Unit

- Corporate Planning and Business Strategy Office
- Customer-Centric Management Promotion Office
- Corporate Affairs & Human Resources Unit
- JAIMS Promotion Division
- Purchasing Unit
- Marketing Unit
  And the following Group Companies:

- Fujitsu Laboratories Ltd.
- Fujitsu Design Ltd.

- Fujitsu Semiconductor Ltd.
- Fujitsu University Ltd., and others

Liaison office: CSR Department

CSR Activities Utilizing ISO 26000

In FY2011, the Fujitsu Group began utilizing the ISO 26000 standard (published November 2010), which provides guidance for social responsibility, in an effort to deepen the scope of its CSR activities.

Preparing a checklist

In September of 2011, the team drawn from across Fujitsu compiled a checklist based on the seven core subjects of the ISO 26000 standard with the support of outside experts. Participants deepened their own understanding of the ISO 26000 guidance, putting the dense language of the original document into a more approachable format for employees less familiar with CSR. This resulted in a 252-item questionnaire.

The ISO 26000 workshop

ISO 26000 Project organization chart (Project office: CSR Department and Fujitsu Way Unit)

ISO 26000 (The seven core subjects)	Department(s) in charge
Organizational Governance	FUJITSU Way Unit
Human rights	Human Resources Management & Employee Relations Div.
Labor practices	Employee Relations Dept.
The Environment	Corporate Environmental Strategy Unit
Fair Operating Practices	Legal Unit, Purchasing Unit
Consumer Issues	Quality Assurance Unit
Community Involvement and Development	CSR Dept.

Confirming the implementation

In November 2011, the project team categorized the survey results from the checklist into one of four levels - Complied, Partially Complied, Confirmation Required, or Not Complied - and confirmed the status of implementation as of FY 2011. As a result, it was found that Fujitsu Limited alone is compliant with178 out of the 252 items, while 74 items fall into Partially Complied, Not Complied, or Confirmation Required. The Company's initiatives demonstrated a high level of practice overall, particularly in such areas as human rights, labor practices and the environment, but at the same time, the assessment revealed that a better understanding is needed of CSR practices at its affiliates, including those overseas.

Future plan

From April 2012, the project management office implemented a detailed analysis of the 74 items for Fujitsu Limited alone noted as Partially Complied, Confirmation Required or Not Complied.

The office will establish a checklist for affiliate companies and conduct a survey of actual CSR practices at those affiliates.

VOICE: Feedback from Experts

In FY 2011, we worked with the Fujitsu Group in preparing a checklist and conducting an internal assessment to better understand the state of CSR activities within the Fujitsu Group in light of ISO 26000.
As a result, we were able to verify that, building on the Fujitsu Way, Fujitsu Limited itself maintains high standards for its CSR activities.
At the same time, we think Fujitsu needs to take measures to accurately understand CSR activities at its affiliates, including those overseas. In addition, we look forward to seeing the Fujitsu Group engage even more proactively in efforts to solve social issues through its use of ICT.

Craig
Consulting
President
Mitsuo Ogawa

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. Through this commitment, we will meet the demands of various stakeholders in international society, and uphold responsible management as a true global ICT company contributing to the creation of a sustainable society.

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 should 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 of July 31, 2012

Please refer to the GRI Guideline Comparison Table which shows the relationship between the United Nations Global Compact and our CSR activities contained in the Fujitsu Group Sustainability Report 2012 (Detailed Version).

Socially Responsible Investment (SRI)

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

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)
FTSE4Good Index Series	FTSE International, Ltd. (UK)
oekom research	oekom research AG(Germany)
Morningstar Socially Responsible Investment Index	Morningstar Japan K.K.

Status of Inclusion in Major SRI Funds (Japan)

Name of Fund	Operating Company
Sumishin SRI Japan Open (Good Company)	Sumishin Asset Management Co., Ltd. (As of April 2012)
Sompo Japan Green Open (Buna no Mori)	Sompo Japan Nipponkoa Asset Management Co., Ltd. (As of April 2012)
Mitsubishi UFJ SRI fund (Family Friendly)	Mitsubishi UFJ Asset Management Co., Ltd. (As of February 2012)
Nikko Eco Fund	Nikko Asset Management Co., Ltd. (As of May 2012)
Japan Equity SRI Fund	Sumitomo Mitsui Trust Asset Management Co., Ltd. (As of April 2012)

Providing Opportunities and Security Through ICT

ICT functions as a common language, linking people across the world together, and enabling them to unlock their potential.
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.
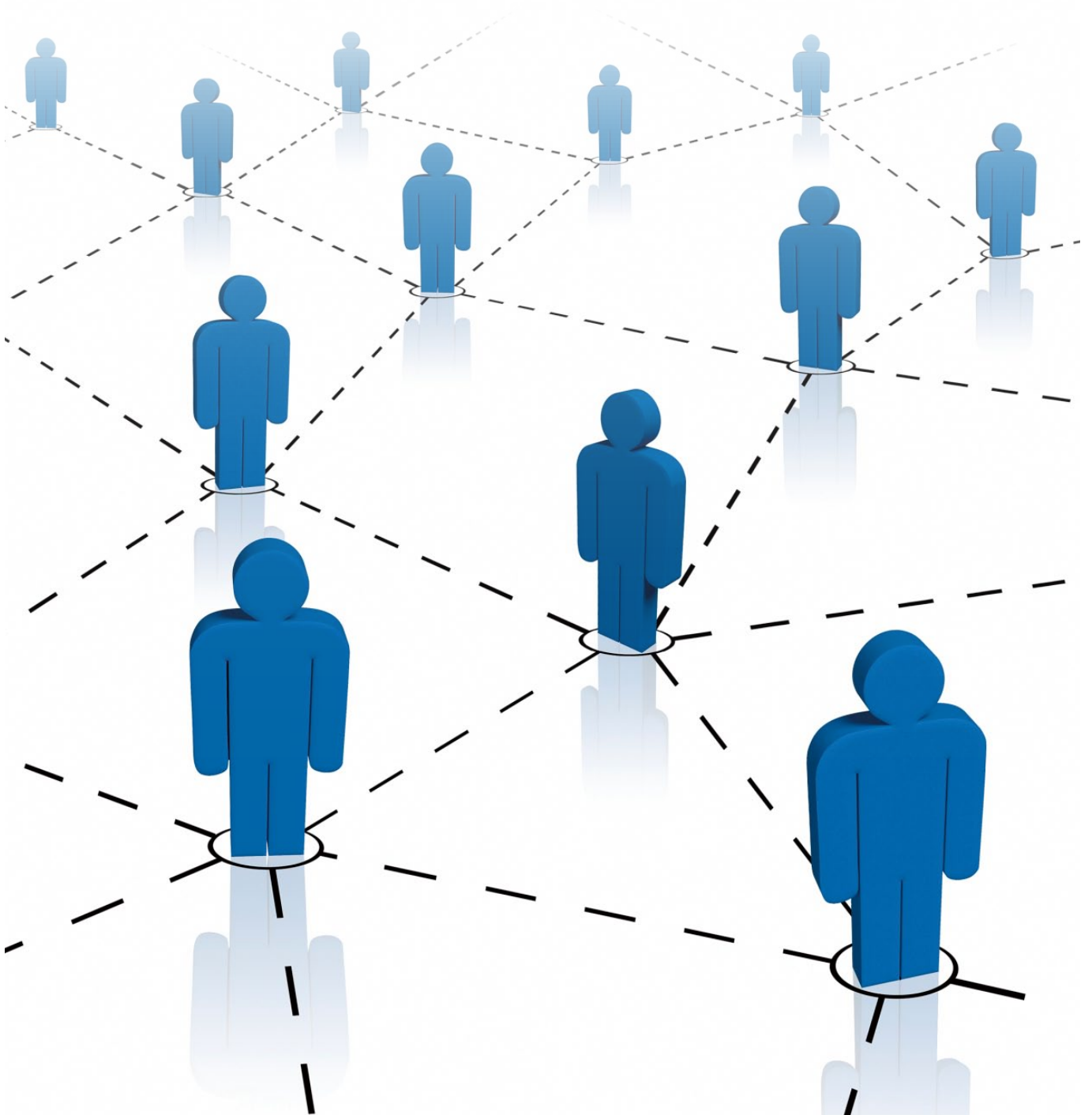
Providing New Values Through ICT

We will Solve Social Issues with Innovation.

Fujitsu jointly developed the K computer[*1], ranked as the world's fastest supercomputer in 2011, and is globally deploying a secure cloud platform with world-class reliability. Fujitsu is offering solutions to intractable problems in a variety of fields, from medicine and food to disaster preparedness, through the provision of advanced, easy-to-use technology. We will keep meeting the challenge of realizing a better future through computing.

*1 The K computer:
K computer is a registered trademark of RIKEN

Key Examples from FY 2011

Collaborative Research with Stockholm University Using Supercomputers to Accelerate International IT-based Drug Discovery

Cancer is becoming the main cause of death globally, due in part to aging societies and modern lifestyles. With the number of cancer patients estimated to increase by 75% by 2030, the need is urgent to develop effective treatments. However, experimental drugs have only a 0.01% chance of making it to market. Raising development success rates is a pressing issue. In collaboration with the University of Tokyo's Research Center for Advanced Science and Technology and Sweden's Stockholm University, Fujitsu is working to leverage IT-based drug discovery technologies to reduce the cost and time spent on animal testing and clinical trials.

Fujitsu will keep striving to contribute to the development and improvement of effective medicines against intractable diseases like cancer by performing highly accurate simulations utilizing the computational power of supercomputers.

New drug development support via highly accurate simulation to predict binding activity
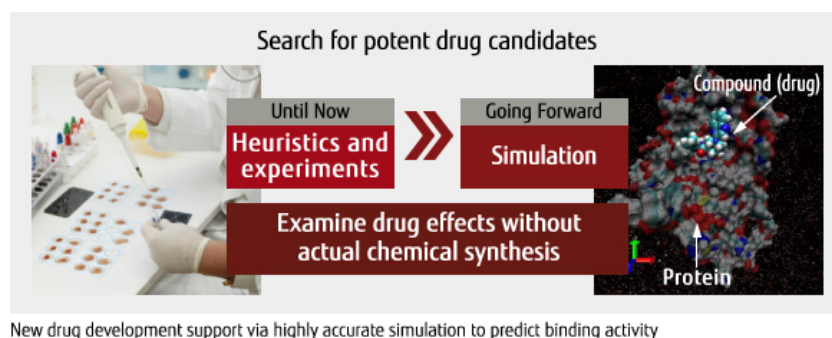
Fujitsu's Cloud-enabled ICT System Supporting a Stable Supply of Safe and Fresh Produce is Deployed at AEON Co., Ltd.'s Directly Operated Farms

Japanese agriculture faces the crucial tasks of bolstering its competitiveness as an industry and steadily delivering safe and fresh produce to consumers.

AEON AGRI CREATE Co., Ltd. manages and handles produce production at Aeon Co., Ltd.'s directly operated farms. It employs Fujitsu's cloud to make all aspects of operations visible-from production to sales of produce-at eight of its farms in the six prefectures of Ibaraki, Tochigi, Chiba, Saitama, Oita, and Shimane across Japan.

This makes it possible to assess factors such as costs for each crop, facilitating profit improvement via cost analysis. The system is also expected to support the supply of safe produce to consumers through the collection and analysis of information on production processes, including records of farm work and agrochemical and fertilizer use.

Multifaceted measures encompassing management, production, and quality are key to making farming more sophisticated. Fujitsu will offer cloud services to help usher in next-generation farming.

Photographs are taken of crop conditions, shared on the cloud, and then analyzed

Crops grown on AEON Co., Ltd.'s directly operated farms

Collaboration with Tohoku University on Tsunami Simulation Research Using High-precision 3D Tsunami Simulations to Achieve a Disaster-resilient Asia

Total fatalities due to natural disasters around the world from 2001 to 2010 were 2.3 times greater than in the previous decade. Two thirds of the fatalities were concentrated in Asia, where many earthquakes, tsunamis, and other catastrophes occur, making disaster risk reduction a key issue in the region.

Research using simulations to mitigate tsunami risks is nothing new, but these projections were limited to calculating tsunami heights and arrival times at coastal areas. It was not possible to project tsunami damage from inundation in urban areas and rivers.

In collaboration with Tohoku University, Fujitsu has begun high-precision 3D tsunami simulation research leveraging the K computer. This technique enables realistic 3D recreations of tsunami impacts on levees bordering coastal areas and buildings in urban areas, which hold promise for helping realize highly reliable disaster preparedness and mitigation measures.
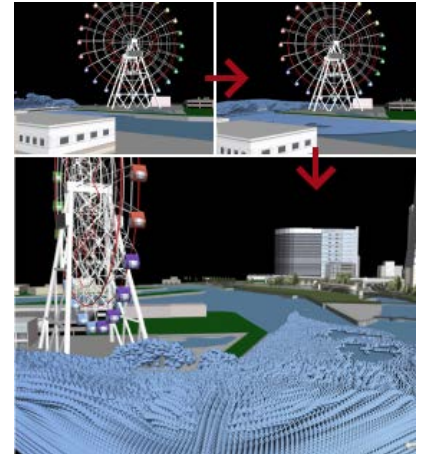
3D tsunami simulation

Fujitsu will employ this technique to assist in alleviating damage from natural disasters in Asia, starting with recovery and revitalization efforts in areas hit by the Great East Japan Earthquake.

Supercomputer, the "K computer"

Increasing ICT Accessibility

Providing Opportunities to as Many People as Possible

ICT brings people around the world together, and is a common language in the pursuit of one's own possibilities. To open the doors of cyber society so that as many people as possible can reap the benefits of ICT, Fujitsu will offer intuitive devices that everyone can understand and use, and provide systems to support ICT deployment in developing countries.

Key Examples from FY 2011

The Fujitsu Group's ICT Platform to Handle Sharp Rise in Communications Traffic from Sophisticated Mobile Phone Services in Morocco

The Kingdom of Morocco is a constitutional monarchy located in northwest Africa, with a population of roughly 32 million people. With the country's mobile phone market continuing to grow rapidly, Méditel, the second-largest domestic mobile telecommunications provider, needed to quickly manage increasing communications traffic from the provision of increasingly sophisticated services to ever more users. Fujitsu joined forces with partner company PTI (Portugal Telecom Inovação, SA) to offer an ICT platform with high processing capacity, enabling Méditel to roll out new services for its 10 million users and handle feature expansion.

Moroccans using mobile phone services

The Fujitsu Group's ICT platforms will support globalization in Morocco and other developing countries around the world.

Use of the STYLISTIC Q550 Slate PC in U.S. and Japanese Classrooms

Digital education leveraging ICT has started making its way into classrooms in the United States and Japan. In the U.S., Charlottesville City Schools had been exploring introducing tablets as a learning tool but could not find one that met their criteria. Fujitsu's STYLISTIC Q550 tablet changed that, with durability, operability, portability, and other specs that beat the competition, spurring Charlottesville City Schools to put over 2,000 of the tablets into use. This model is also being used at the three schools below participating in the Ministry of Internal Affairs and Communications of Japan's "Future School Promotion Project."

Tablets put to work in the classroom

- Shouei Junior High School in Shinchi Town, Fukushima Prefecture
- Joto Junior High School in Wakayama City, Wakayama Prefecture
- Takeo Seiryo Junior High School, Saga Prefecture

The Fujitsu Group will keep proposing ICT solutions to support digital education for children worldwide.

Fujitsu Group's Universal Design (UD)

The Fujitsu Group develops and provides products and services that facilitate greater social inclusion by being easy for everyone to use, irrespective of gender, age, and disabilities; ICT inexperience; or educational opportunities. We will also contribute to our customers' businesses by developing ICT equipment that encourages people to engage in society and raises social productivity. We incorporate feedback from customers and third parties gleaned from interviews, questionnaires, and user tests into development to offer ICT with better usability for a wider user base.

Offering Intuitive ICT Devices Everyone Can Use

Raku-Raku (Easy-to-Use) Phones

We follow a policy of Human Centered Design, delivering products and services attuned to human characteristics so that everyone can use ICT safely, securely, effectively, and comfortably.

The Raku-Raku Phone handsets that Fujitsu started supplying to NTT DOCOMO, INC. in 2001 have become a hit, thanks to innovations that make diverse functions simple to use. In March 2012, the cumulative sales volume topped 20 million handsets. In May 2012, NTT DOCOMO announced the release of a Raku-Raku smartphone, for which Fujitsu has devised an interface that is easy to use for everyone.

- Comprehensive mobile phone website (in Japanese)

Raku-Raku
Smartphone

Raku-Raku (Easy-to-Use) PCs

We also released the Raku-Raku PC series in 2008. These PCs include a Raku-Raku keyboard that allows users less familiar with the often complex layout of Japanese-style keyboards to recognize at a glance the characters they want to input, and feature 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.

- FMV Raku-Raku PC (in Japanese)

Raku-Raku PC

User-Friendly ICT Means Greater Uptake

Developing ATMs with an Eye to Intuitive Operations and Color Universal Design

FACT-V X200

CUD certification mark

Fujitsu's ATM FACT-V X200 offers enhanced color contrast so that people who see colors differently from the general public or have a reduced ability to sense color due to eye disorders, advanced age or other reasons have an easier time making distinctions. This ATM model has received certification[1] from the NPO Color Universal Design Organization for user operability, particularly with regard to individual differences in color perception.

The FACT-V X200 is also designed to facilitate maintenance operations. In addition to a userfriendly screen design, it has levers and labels to make navigating operational components a breeze. Visual guidance enabling on-site verification of operational procedures makes operation easier for all maintenance attendants.

- FACT-V X200 (in Japanese)
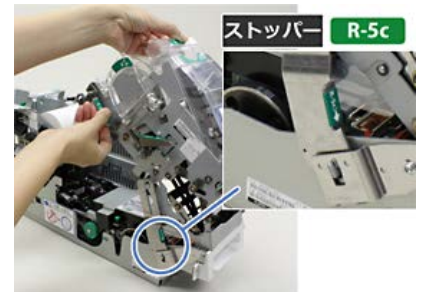
Easy-to-operate internal unit

*1 :
For hardware and software (Fujitsu standard specifications) used by customers to operate the ATM

Rendering Visible the Deployment of Services Fusing Social Infrastructure and ICT

FUJITSU Design Award 2011

As an ICT product and service provider, the Fujitsu Group aims to shape a new society that contributes to people's daily lives. To this end, we pursue the development of products that bring computing technology closer to end users, and can be comfortably and conveniently used by more people.

As part of this commitment, we held the FUJITSU Design Award 2011. Open to designers worldwide, this genuine international design competition spotlighted PC-related designs that bring innovation to everyday life. The winning designs illustrate how ICT devices can be useful in daily living and render visible the deployment of services that are integrated with social infrastructure.

- FUJITSU Design Award 2011

Grand Prize Submission: a cane designed with embedded ICT, enabling users with mobility challenges to take an active part in society

Major Awards Received in FY 2011

- GOOD DESIGN AWARD (Japan)
  - ARROWS X LTE F-05D
  - REGZA Phone T-01D
  - Windows Phone IS12T
  - AARROWS Tab LTE F-01D
  - Raku-Raku walking diary
  - HumanBridge - a SaaS-based medical network solution
  - GLOVIA Smart Kirara OCR
  - Mobile Phone Application to Support Children with Special Needs
  - ScanSnap S1100
  - Wall-mounted air conditioners for the global market LT/LU series

- KIDS DESIGN AWARD (Japan)
  - Industry's first design internship for junior high school students
    Kids Consumer Support Prize (Minister of State for Consumer Affairs Award)
  - Self-checkout machines that contribute to children's growth
    Excellence Award (Category: Kids Consumer Support) (Kids Design Association Chairman Award)
  - Exciting Design Method

- universal design award (Germany)
  - Mobile Phone Application to Support Children with Special Needs

- reddot design award (Germany)
  - Professional LED-Display Series

Providing Reliable and Secure ICT Infrastructure

We want to keep life safe.

ICT penetrates every corner of our lives. Embedded in a wide array of social infrastructure, it helps to raise the safety of public, transportation and other services. Further, ICT enables high-security environments to protect personal and proprietary information by providing biometric authentication solutions and similar safeguards.

Key Examples from FY 2011

Provision of a New Cloud Service to Support Water and Sewer Operations

Amid rising food demand and more severe water shortages due to climate change, roughly 13% of the world's population does not have access to safe drinking water, and nearly half of households lack running water. Meanwhile, Japan's water and sewerage infrastructure is aging, with nationwide upgrades called for in 2015. This is problematic for many local governments that manage water and sewer operations due, in part, to a lack of financial resources and experienced engineers.

To address these issues, top-tier water treatment player METAWATER Co., Ltd. teamed up with Fujitsu to build a water business cloud (WBC). This ICT infrastructure enables remote monitoring of facilities spanning a wide geographic area. The WBC makes it possible for local governments and other water and sewer business operators to use shared ICT infrastructure. This framework is projected to reduce life cycle costs, including system installation and running costs, by at least 30% compared with conventional wide-area water and sewerage surveillance.

Fujitsu will utilize cloud computing technologies to support sustainable water and sewerage operations in the future.

WBC remote support services   Operation management

Attaining Higher Maintenance Work Efficiency in the Airline Industry through Collaboration with Boeing

Management issues in the still rapidly growing global airline industry are numerous and cover extensive ground, from ensuring safe operations to adhering to flight schedules and cutting costs.

Fujitsu teamed up with Boeing to develop its new aircraft maintenance service utilizing automated identification technology (AIT). Coined "RFID Integrated Solutions", the service employs radio frequency identification device (RFID) technology to instantly provide information like manufacture date, maintenance history, and inventory status. In field tests conducted jointly with Alaska Airlines, oxygen generator[1] inspection time was dramatically reduced to 15 minutes from the 6.5 hours for the traditional visual, paper-based inspections. The new method also eliminates data input by hand to provide accurate data that increases maintenance reliability.

The Fujitsu Group will deliver ICT to help airline companies ensure safety and security and reduce operating costs.

*1 Oxygen generator:
A type of emergency equipment, along with items like flotation devices, found on airplanes.

Maintenance work on an aircraft equipped with RFID

Group photograph after the three firm's joint operational tests

World's First Contactless Security Access System for Thousands of People

The Swiss company Richemont is one of the three biggest luxury goods holding companies in the world, with brands like Cartier, Montblanc International GmbH, and Alfred Dunhill, Ltd. Richemont had employed a system using fingerprint authentication technology to guard against unauthorized access to work areas, but experienced problems with authentication accuracy, including verification failures due to dry or rough skin.

Fujitsu worked with this Swiss partner to develop the world's first contactless security access system capable of providing rapid, highly precise authentication for several thousand people, shoring up its security framework. This system ensures that unauthorized people do not enter offices and enables swift responsiveness in the event of theft.

Fujitsu will continue to contribute to customers' security, safety, and brand value enhancement by providing security solutions utilizing PalmSecure™ palm vein authentication.

Security access system using PalmSecure(TM) palm vein authentication

PalmSecure(TM) technology applied to a computer mouse

Protecting the Global Environment

Clean air and water, rich soil and forests, and other natural gifts are vital to our existence and economic activity.

However, there is global concern about the impact on health and ecosystems from air pollution and destruction of the natural environment.

The Fujitsu Group is stepping up efforts to leverage ICT to reduce environmental impact and conserve biodiversity to ensure that our children inherit a beautiful planet.

Environmental Management at the Fujitsu Group

The Fujitsu Group is well aware of its mission as a global ICT organization. We are dedicated to sustainable growth and progress with our customers and society as we seek more ways to reduce our impact on the environment.

Leveraging the power of ICT to contribute to sustainable growth

Significant global warming and declining biodiversity are just two of many serious environmental issues that continue to escalate on a global scale. Furthermore, with the world's population now more than 7 billion, there are rising concerns about a shortage of food, water, energy and other resources. The Fujitsu Group is determined to play a role in achieving a prosperous society that is capable of sustainable growth. Enacting the necessary reforms will be impossible without the power of ICT.

Since its inception in 1935, the Fujitsu Group has placed priority on actively protecting the environment based on the principle of "operating in harmony with nature." Today, environmental problems are more serious than ever. Dealing with these issues will require reducing our own environmental impact as well as greatly lowering the burden on the environment from society as a whole. This is why we are extensively pursuing business operations that have an even smaller environmental impact. In addition, we will be supplying eco-friendly products and ICT solutions that can make a large contribution to making the activities of our customers and society more environmentally compatible. Basically, this stance entails incorporating the use of Green ICT at an even faster pace.

Green ICT consists of two elements. The first is using ICT solutions to reduce the impact on the environment. These solutions offer benefits that include using energy more efficiently, producing and consuming goods more efficiently, reducing movements of people and goods, and using sensors to measure and predict changes in the environment. The second is reducing the environmental impact of ICT devices. This is why we focus on supplying environmental products that use less energy and fewer resources. Developing and building highly energy-efficient datacenters is another part of this aspect of Green ICT.

The Fujitsu Group is committed to leveraging its expertise in creating technologies to help resolve global environmental issues through the power of ICT. By doing so, we want to contribute to sustainable growth and progress for our customers and the world.

Environmental Management Based on the FUJITSU Way

The Fujitsu Group implements environmental management in a systematic and sustained manner. Our efforts reflect the goal of "in all our actions, we protect the environment and contribute to society." This commitment is part of the Corporate Values enshrined in the FUJITSU Way, a corporate philosophy with guiding principles for the Company and its employees.

Fujitsu Group Environmental Management
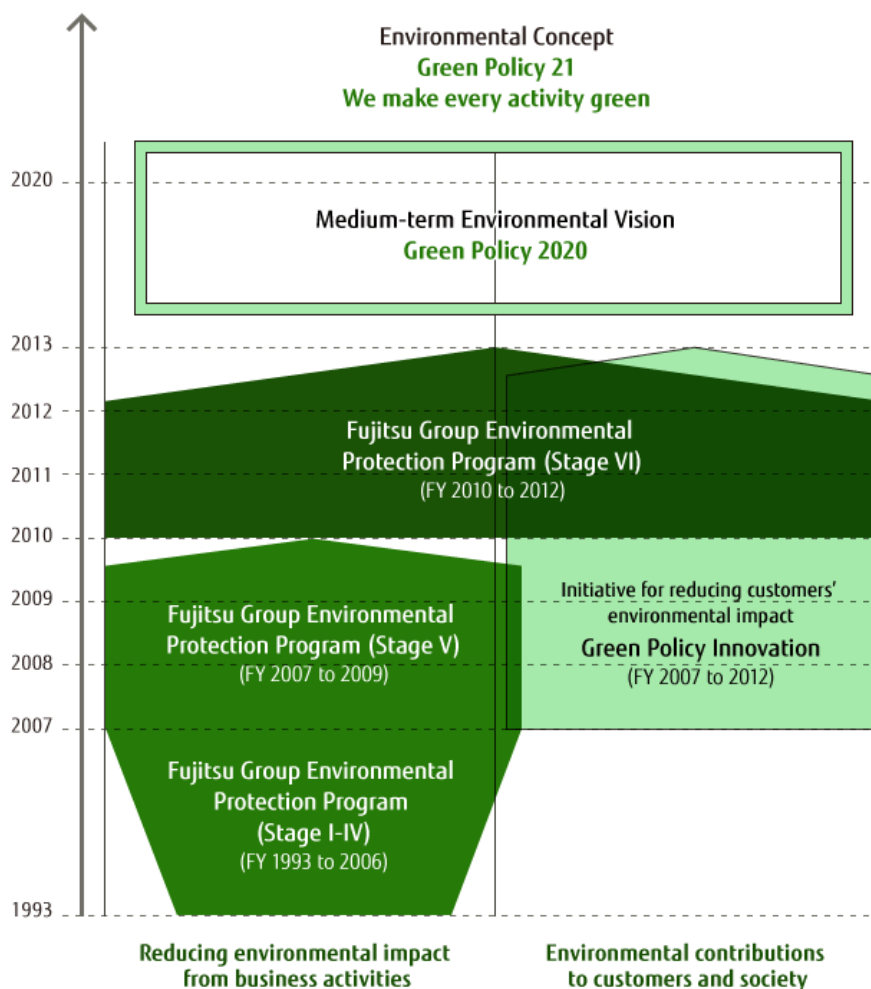
We have established an environmental concept called Green Policy 21 for the purpose of making everyone at the Fujitsu Group aware of our stance regarding environmental activities and to promote this stance in our daily business practices. Global environmental activities called Green Policy Earth are the core of this environmental concept. Initiatives to accomplish our goals are Green Policy Products, Green Policy Factories and Green Policy Solutions. Furthermore, we position Green Policy Management as the mechanism that supports all of these activities.

- Environmental Concept "Green Policy 21"

Green Policy 2020 is a medium-term environmental vision that defines the roles and objectives of the Fujitsu Group between now and 2020. There are three goals: to benefit our customers and society as a whole, to pursue internal reforms, and to preserve biodiversity. We will create technologies and solutions while cooperating with many other organizations and reform our own activities to make Fujitsu a low-carbon corporate group, which is another objective of this policy. By implementing such measures, we will play a part in achieving a prosperous, low-carbon society.

Three Green Policy 2020 Goals

1. Benefit our customers and society as a whole
   It is the goal of the Fujitsu Group to reduce carbon emissions in Japan by 30 million tons annually by 2020 through the provision of advanced, energy-efficient technologies and solutions, thus contributing to lowering worldwide greenhouse gas emissions, which need to peak by 2020 at the latest in order to achieve the 2050 goal declared by the G8.

2. Pursue internal reforms
   By 2020, Fujitsu seeks to offer world-class overall energy efficiency in all of its business areas (software and services, hardware, electronic devices, others). Fujitsu will also set up a new organization to promote low-carbon initiatives.

3. Preserve biodiversity
   Fujitsu plans to address every area of the Leadership Declaration of the Business and Biodiversity Initiative, with specific initiatives to get underway before 2020.

- Medium-Term Environmental Vision "Green Policy 2020"

As one step toward reaching the goals of this medium-term environmental vision, the Fujitsu Group established the Fujitsu Group Environmental Protection Program (Stage VI) that covers the three-year period from FY 2010 to FY 2012. We are also making progress with Green Policy Innovation, a project that aims to lower the environmental burden of our customers' activities through the provision of Green ICT. The goal of this project is to contribute to cutting global CO2 emissions by at least 15 million tons during the four-year period from FY 2009 to FY 2012.

- Targets and Results for the Fujitsu Group Environmental Protection Program (Stage VI)
- Environmental Burden Reduction Project by Green IT, Green Policy Innovation

The Green Policy Innovation Logo

The Fujitsu Group started its Green ICT project, called Green Policy Innovation, in December 2007. We began using the Green Policy Innovation Logo in November 2008 so that customers can easily identify products that are part of this project.

Only products that fulfill specific requirements may display this symbol. One category is "Green" products that meet our strict environmental standards for recycling, energy conservation, environmentally responsible materials and other criteria. Another is "Super Green" products, which achieve the highest levels of environmentally compatible characteristics among all Fujitsu Group products. We also use this symbol for Environmentally Conscious Solutions that can lower customers' CO2 emissions by at least 15%.

The Green Policy Innovation Logo

Environmental Emblem

This Environmental Emblem symbolizing the stance of the Fujitsu Group with respect to the environment was unveiled in November 1994. The emblem consists of the Earth, a pair of eyes, and an infinity symbol, which is used as part of the Fujitsu Logo. The meaning is that the Fujitsu Group will always conduct its business caring for the Earth.

The Environmental Emblem can be found, among other places, on Fujitsu Group Sustainability Reports and in association with Group environmental and social contribution activities.

Environmental Emblem

First IT Services Company to Garner "Eco-First" Credentials

In September 2010, Fujitsu became the first IT services company to be certified under Japan's Ministry of the Environment's "Eco-First Program." Under the program, industry-leading companies pledge to fulfill their environmental commitments in areas such as countering global warming and protecting biodiversity to the Minister of the Environment as a way to further promote their environmental preservation initiatives.

First IT Services Company to Garner "Eco-First" Credentials

Reinforcing Environmental Management by Utilizing ICT

Fujitsu has made environmental management even more powerful by building an Environmental Management Dashboard, a centralized display of information derived from the collection and analysis of data from a variety of sources.

Establishment and Use of the Environmental Management Dashboard

As demands for protecting the environment continue to rise, companies are faced with the increasingly significant task of achieving environmental management that can support both the growth of business activities and reduce the environmental impact of such activities. The Fujitsu Group has established an Environmental Management Dashboard to function as a support base for environmental management. Its centralized portal screen displays information derived from the collection and analysis of a multitude of environmental data in real time. Senior executives, department managers and site managers, depending on their needs, can use the dashboard to access this information and utilize it in making their own decisions. We believe this single, integrated display provides for stronger environmental management.

The dashboard can show data ranging from the entire Fujitsu Group to individual business sites, departments, buildings and floors. Users can access visualized data for the types and amounts of energy used, total CO2 emissions, CO2 emissions per employee or unit of floor area, year-on-year comparisons broken down by month, and various other information on a real-time basis. Examples of other capabilities are monthly performance reports in relation to the Fujitsu Group Environmental Protection Program (Stage VI) and an alert function. Information on the dashboard is valuable in enabling executives and managers in charge of energy management to make decisions and judgments. The dashboard is also an effective tool for encouraging all employees to take action following their own autonomous initiatives to protect the environment.

In response to the Great East Japan Earthquake, the Japanese government has asked large electric power users to reduce their consumption. By utilizing the Environmental Management Dashboard, the Fujitsu Group succeeded in cutting electricity use to well below the target level. We are using this system for more than our own environmental management-the dashboard is intended to serve as an environmental reference model that enables customers to incorporate our know-how into their own environmental management. We plan to use this model to provide our customers with a variety of environmental solutions.

A sample Environmental Management Dashboard screen display

Looking Back on FY 2010 Environmental Activities

The global population has topped 7 billion, and concerns about resource depletion and growing environmental stress continue to spread. At the same time, ICT has come a long way, with impressive computing power and high-speed networks, and its applications know no bounds. The Fujitsu Group looks to wield the power of ICT to help solve global environmental problems.

The Great East Japan Earthquake in 2011 sharply changed energy awareness and values in Japan, and caused companies and households to work hard to conserve energy. The Fujitsu Group also deployed measures to save electricity throughout its domestic locations. We achieved our conservation targets by using the Environmental Management Dashboard, a tool developed in-house, to ascertain real-time electricity use.

Corporate
Executive Advisor
(Environmental Strategy)
Atsuhisa Takahashi

Head of Unit,
Corporate Environmental
Strategy Unit
Minoru Takeno

As for the Fujitsu Group Environmental Protection Program (Stage VI), we met all of the targets
for the program's second year, FY 2011, including the four items we upwardly revised. We will work to ensure that Fujitsu also achieves the goals for the program's final year, FY 2012.

Further, we are taking on the challenge of deploying ICT in new fields, with an eye to a sustainable global environment. Our wide-ranging activities include employing multi-sensing network technology to conserve biodiversity and help revitalize agriculture and contributing to the creation of environmentally friendly cities.

The Fujitsu Group will continue efforts to resolve resource, energy, and other global environmental problems through our cutting-edge Green ICT.

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

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 2011 Targets Achieved

We achieved all of the targets set in the Fujitsu Group Environmental Protection Program (Stage VI) for FY 2011. And, we achieved our planned targets for areas where we had revised targets upward for FY 2011; namely, advanced green ICT R&D, environmental efficiency factors, renewable energy, and CO2 reduction in distribution and transportation. Going forward, we will continue to use the PDCA cycle and work toward achieving our FY 2012 targets as well, which are our final fiscal-yearly targets for Stage VI of the program.

Benefitting customers and society

Strengthening advanced green ICT R&D

Category	Performance (FY 2010)	Targets (FY 2011)	Performance (FY 2011)	Targets (FY 2012)
Strengthening advanced green ICT R&D				
Develop technologies for next-generation datacenters and networking that will at least double overall efficiency of ICT products by end of FY 2012.	1.3 times	1.5 times	1.5 times	2 times
By end of FY 2012, more than 70% of all technology developed will be solutions for reducing burden on the environment.	58%	60%	61%	70%

Improving environmental value of products and services, and enhancing development and delivery of green ICT

Category	Performance (FY 2010)	Targets (FY 2011)	Performance (FY 2011)	Targets (FY 2012)
Develop and deliver green ICT to contribute to customers and society				
Provide green ICT that will reduce cumulative CO_2 emissions by 15 million tons or more over the FY 2009-12 period.	5.60 million tons	9.55 million tons	9.98 million tons	15 million tons or more
Develop and provide eco-friendly products (Super Green products)				
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.	17%	20% or more	33%	30% or more
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 FY 2008 value by end of FY 2012.[*1]	Raise to 3.2	Raise to 3.5	Raise to 4.1	Raise to 4.0
Promote product recycling				
Sustain 90% resource reuse rate of business ICT equipment globally at Fujitsu recycling centers.	93.3%	Sustain 90%	94.1%	Sustain 90%
Develop and provide environmental solutions				
Promote development and provision of environmental solutions in all areas, including industry, transport, business, households, and energy conversion sectors. Expand provision of environmental solutions in major regions, including Japan, Europe, the Americas, and Asia-Pacific.	Departmental and regional coverage rate: 78%	Departmental and regional coverage rate: 85%	Departmental and regional coverage rate: 89%	Departmental and regional coverage rate: 100%

Pursuing internal reforms

Enhancing efforts to reduce the Fujitsu Group's environmental footprint

Category	Performance (FY 2010)	Targets (FY 2011)	Performance (FY 2011)	Targets (FY 2012)
Reduce greenhouse gas emissions				
Reduce total greenhouse gas emissions associated with manufacturing globally to 6% below FY 1990 levels by end of FY 2012 (CO2: 5% reduction, other greenhouse gases: 20% reduction).	11.7% reduction	3% reduction	18.2% reduction	6% reduction
Reduce greenhouse gas emissions (renewable energy)				
Increase use of renewable energy sources to 10 times FY 2007 levels by end of FY 2012.*1	4.8 times	10 times	11 times	10 times
Reduce CO2 in transport and distribution				
Reduce CO2 emissions from domestic transport to 15% below FY 2008 levels by end of FY 2012.*1	18% reduction	16% reduction	24% reduction	15% reduction
Promote business partners' greenhouse gas reduction				
Promote procurement from business partners that limit or reduce greenhouse gas emissions.	62.7%	80%	98.4%	100%
Factory improvements (chemicals)				
Reduce output of priority chemicals to 10% below FY 2007 levels by end of FY 2012.	48% reduction	7% reduction	60% reduction	10% reduction
Factory improvements (waste)				
Reduce waste generation to 20% below FY 2007 levels by end of FY 2012.	20.1% reduction	13% reduction	27% reduction	20% reduction
Maintain zero waste emissions at factories in Japan.	Status maintained	Status maintained	Status maintained	Status maintained
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 (completed)	Japan: 70% Internationally: Draft evaluation standards	Japan: 80% Internationally: completed draft evaluation standards	Japan: 100% Internationally: Trial implementation

Strengthening environmental governance

Category	Performance (FY 2010)	Targets (FY 2011)	Performance (FY 2011)	Targets (FY 2012)
Continuously improve globally integrated environmental management systems				
Promote further ICT deployment for environmental management, build smart environmental management systems.	Trial implementation	Block application rate: 50%	Block application rate: 60%	Block application rate: 75%
To improve environmental performance, by end of FY 2012 we intend to apply a framework of assessments for the extent of target achievement and a compliance situation of 100% in regard to the Group's main domestic production companies.	Performance assessment procedures established	Trial implementation	Trial implementation	Expand as far as domestic manufacturing group companies
Promote environmental management through communications with stakeholders				
Promote environmental communication at all levels to improve environmental management	Both internal and external information dissemination improved	Improved communication of environmental information	Both internal and external information dissemination improved	Improved communication of environmental information

Promoting environmental contributions to society

Category	Performance (FY 2010)	Targets (FY 2011)	Performance (FY 2011)	Targets (FY 2012)
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.	Network implementation	Management of the domestic network Management of the international network	Management of the domestic network Management of the international network	Management of the domestic network Management of the international network
Sustain environmental social contributions activities around the world and promote activities that will contribute more to local communities through utilizing Act-Local-System.	Japan: Implemented at all business sites Internationally: Implemented at 54% of business sites	Japan: Once a year Internationally: Once every three years	Japan: Implemented at all business sites Internationally: Implemented at 65% of business sites	Japan: Once a year Internationally: Once every three years

Preserving biodiversity

Promoting efforts to preserve biodiversity

Category	Performance (FY 2010)	Targets (FY 2011)	Performance (FY 2011)	Targets (FY 2012)
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.	Completion of numerical indicator development	1.5% reduction in level of impact (in main business areas) compared to FY 2009 as evaluated by BD integration index	4.6% reduction in level of impact (in main business areas) compared to FY 2009 as evaluated by BD integration index	3% reduction in level of impact (in main business areas) compared to FY 2009 as evaluated by BD integration index
Promote procurement from business partners that work to preserve biodiversity.	60.9%	80%	99.2%	100%
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.	Survey implementation	Pilot project based on survey results	Pilot project based on survey results	Development at main business sites
Conduct biodiversity preservation/education programs in all offices by end of FY 2012.	Japan: Implemented at all business sites Internationally: Implemented at 30% of business sites	Japan: Once a year Internationally: Once every three years	Japan: Implemented at all business sites Internationally: Implemented at 41% of business sites	Japan: Once a year Internationally: Once every three years

*1:
Target revised upward from FY 2011

Green Policy Innovation-Achievements in Reducing CO2 Emissions

Since FY 2007, the Fujitsu Group has been promoting Green Policy Innovation, a project to reduce environmental burden through Green ICT. In FY 2009, Fujitsu set a global target of cutting CO2 emissions by more than 15 million tons over a four-year period from FY 2009 to 2012. By FY 2011, we exceeded our targets and contributed to a total CO2 reduction of 9.98 million tons in aggregate, comprising 2.11 million tons from offering Green Policy Products (eco-friendly ICT infrastructure products), and 7.87 million tons from providing Green Policy Solutions, which are ICT solutions that contribute to reducing environmental burdens.

CO₂ Reduction Targets and Achievements under Green Policy Innovation

(10,000 tons)*

	Target 2009	Achievement 2009	Target 2010	Achievement 2010	Target 2011	Achievement 2011	Target 2012
Total	213	237	526	560	955	998	1,517
ICT solutions	182	196	437	452	772	787	1,195
ICT infrastructure	31	41	89	108	183	211	322

■ ICT infrastructure   □ ICT solutions

*Cumulative from FY 2009

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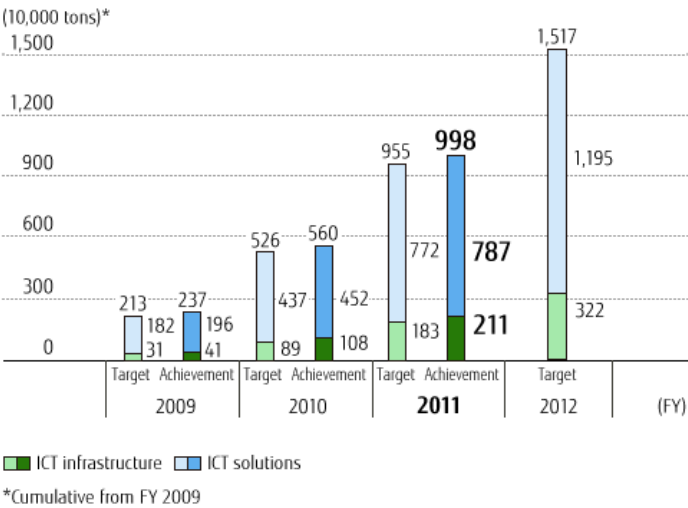
Operating Activities and Environmental Load (FY2011)

We promote environmentally friendly business activities through overall quantitative assessment of our environmental burden.

FY 2011 Performance

Material Balance

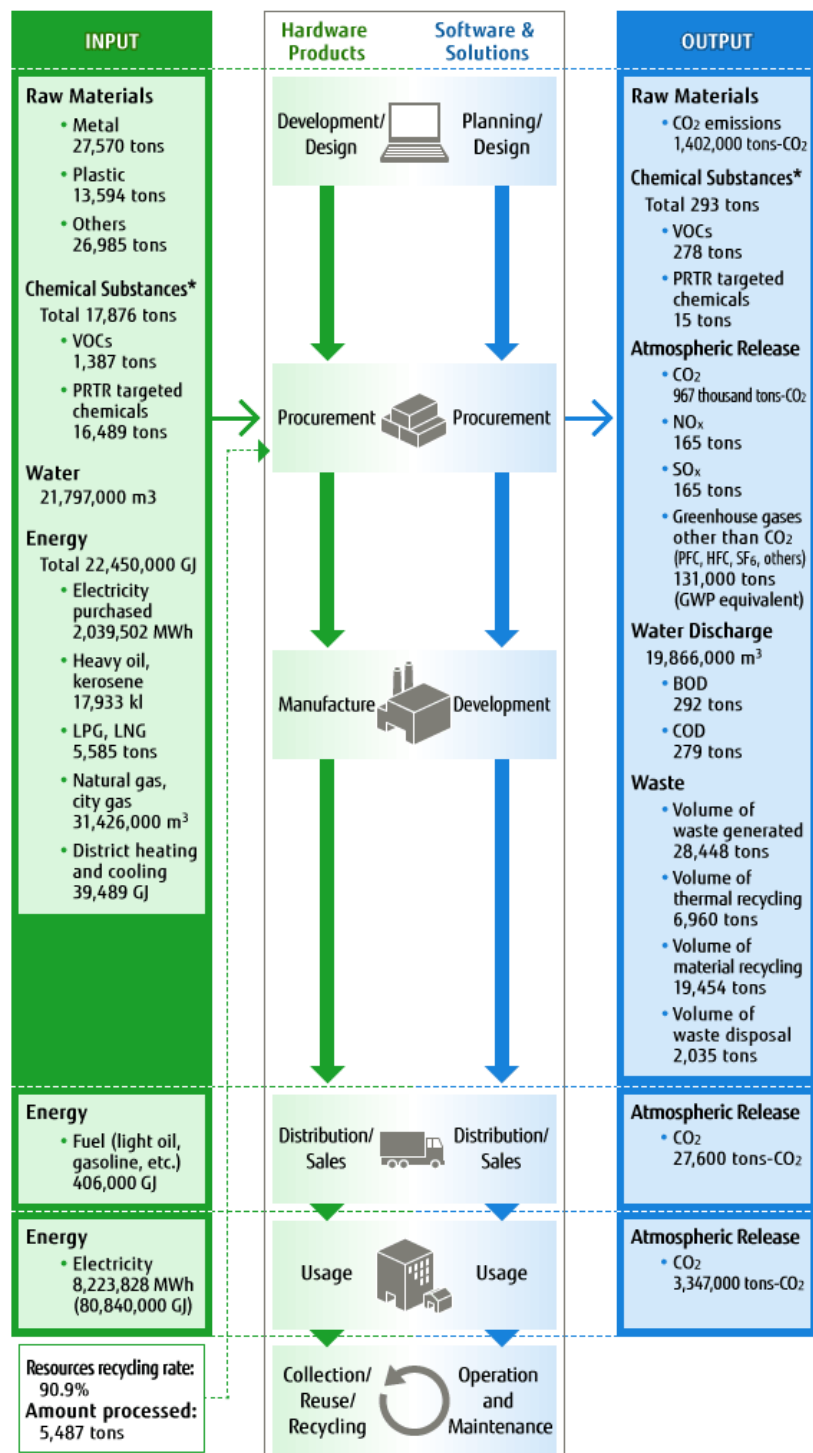| INPUT	Hardware Products / Software & Solutions	OUTPUT
Raw Materials • Metal 27,570 tons • Plastic 13,594 tons • Others 26,985 tons **Chemical Substances*** Total 17,876 tons • VOCs 1,387 tons • PRTR targeted chemicals 16,489 tons **Water** 21,797,000 m3 **Energy** Total 22,450,000 GJ • Electricity purchased 2,039,502 MWh • Heavy oil, kerosene 17,933 kl • LPG, LNG 5,585 tons • Natural gas, city gas 31,426,000 m^3 • District heating and cooling 39,489 GJ	Development/Design — Planning/Design Procurement — Procurement Manufacture — Development	**Raw Materials** • CO$_2$ emissions 1,402,000 tons-CO$_2$ **Chemical Substances*** Total 293 tons • VOCs 278 tons • PRTR targeted chemicals 15 tons **Atmospheric Release** • CO$_2$ 967 thousand tons-CO$_2$ • NO$_x$ 165 tons • SO$_x$ 165 tons • Greenhouse gases other than CO$_2$ (PFC, HFC, SF$_6$, others) 131,000 tons (GWP equivalent) **Water Discharge** 19,866,000 m^3 • BOD 292 tons • COD 279 tons **Waste** • Volume of waste generated 28,448 tons • Volume of thermal recycling 6,960 tons • Volume of material recycling 19,454 tons • Volume of waste disposal 2,035 tons
Energy • Fuel (light oil, gasoline, etc.) 406,000 GJ	Distribution/Sales — Distribution/Sales	**Atmospheric Release** • CO$_2$ 27,600 tons-CO$_2$
Energy • Electricity 8,223,828 MWh (80,840,000 GJ)	Usage — Usage	**Atmospheric Release** • CO$_2$ 3,347,000 tons-CO$_2$
Resources recycling rate: 90.9% **Amount processed:** 5,487 tons	Collection/Reuse/Recycling — Operation and Maintenance	

*Substances that qualify as both a PRTR targeted chemical and a VOC are included under "VOCs" only.

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Calculation Methods

Calculation Methods (INPUT)

Development/Planning & Design Procurement Manufacturing/Development	Raw Materials	Material inputs to our major products*1 shipped in FY 2011 (raw materials per unit for each product times the number of units shipped in FY 2011)
	Chemical Substances	PRTR: Volume of PRTR-targeted substances handled by plants/sites in FY 2011 VOC: Volume of substances subject to VOC emissions restrictions stipulated by the four electric and electronics associations handled by plants/sites in FY 2011
	Water	Volume used by plants/sites in FY 2011
	Energy	Electricity, oil and gas consumed by plants/sites in FY 2011
Distribution / Sales	Energy	Energy consumption in transportation in FY 2011
Usage	Energy	Electricity consumption by major products*1 shipped in FY 2011 (Assumed hours of use per product x age-based electricity consumption x the number of units shipped in FY 2011)
Collection / Reuse / Recycling		The weight ratio of recycled parts and resources with respect to the processing volume of post-use products in Japan 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.

Calculation Methods (OUTPUT)

Development/Planning & Design **Procurement** **Manufacturing/Development**	**Raw Materials**	Material inputs to our major products[*1] shipped in FY 2011 (per-unit volume of CO2 emitted from mining the resource until it becomes a raw material for each product times the number of units shipped in FY 2011)
	Chemical Substances	PRTR: Volume of PRTR-targeted substances discharged in FY2011. Calculated by measuring the concentration of substances passing through plants' drains and exhaust ports in FY 2011 and multiplying the total volume discharged (nickel compounds, manganese compounds, etc.) or total volume emitted (xylene, toluene, etc.), or calculated based on the chemical substance balance (xylene and toluene). VOC: Emission amounts of the substances subject to VOC emissions restrictions stipulated by the four electric and electronics associations for factories and business sites for FY 2011
	Atmospheric Release	CO2: CO2 discharge volume associated with energy consumption by plants/sites in FY 2011 (Energy consumption times CO2 conversion factor) NOx, SOx: Calculated from concentrations in gases discharged from vents (boilers, etc.) by plants/offices in FY 2011 Greenhouse gases other than CO2: Discharge volume of process gases used in four semiconductor plants in FY 2011 (Calculated by formulas such as <volume of gas used> x <ratio consumed in reactions> x <detoxification ratio>)
	Water Discharge	Wastewater volume discharged by plants/sites into sewerage or rivers in FY 2011 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 2011 Volume of Waste Disposal: The volume of landfill disposal and simple incineration by plants/sites in FY 2011 (including waste which is not a zero emission target)
Distribution/Sales	**Atmospheric Release**	The total volume of CO2 emissions in FY 2011, 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 CO2 emissions during use of major products[*1] shipped in FY 2011 (Amount of energy consumed x CO2 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 2011)

*1 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.

FY 2011 Environmental Accounting Results (As of July 31, 2012)

To promote environmental management, the Fujitsu Group introduced environmental accounting in FY 1998. We evaluate the efficiency of our environmental protection activities by monitoring the required costs and benefits of these activities. Through this process, we have clarified issues and promoted sharing of the results.

Purpose of Introducing an Environmental Accounting System

- To clarify our corporate stance through disclosure of information to stakeholders

- To implement long-term, continuous environmental measures

- To raise the efficiency of investment in environmental protection measures

- To energize environmental protection activities

Basic Environmental Accounting Elements

- Applicable period
  April 1, 2011 to March 31, 2012

- Accounting coverage
  Fujitsu and its major consolidated subsidiaries worldwide *1

- Calculation basis for environmental protection costs

  - **Accounting method for depreciation and amortization**: Depreciation and amortization expenses for investments are included in expenses using straight line depreciation (with no residual value) based on a useful life of 5 years. The useful life of five years was chosen based on the average length of the actual period from the introduction of environmental facilities to the implementation of repairs and upgrades.

  - **Basis for recording composite costs**: In regard to composite costs in which environmental protection costs are coupled with other costs, the Fujitsu Group records only the portion corresponding to environmental protection in conformance with the Environmental Accounting Guidelines 2005 issued by the Ministry of Environment.

- Calculation basis for the economic benefits of environmental protection measures

  - **Scope of benefits in environmental accounting**: The Fujitsu Group records the actual benefits and estimated benefits (risk avoidance benefit and deemed benefit) of reducing environmental impact related to the following items.

    - Benefit of reducing the environmental impact related to resource usage in business activities

    - Benefit of reducing the environmental impact related to environmental loads and waste emissions resulting from business activities

    - Benefit of reducing the environmental impact related to goods and services produced by business activities

    - Benefit of reducing the environmental impact related to transportation and other activities

  - **Investment benefit materialization period and basis**: The accounting period for actual economic benefits has been aligned with the depreciation and amortization period for investments (60 months). However, the accounting period for economic benefits derived from reducing personnel costs related to the environmental management system is 12 months, in line with the main thrust of the environmental management system, which is reviewed every year. With regard to estimated economic benefits, the accounting period for economic benefits derived from capital investment is the same as the depreciation and amortization period (60 months) for actual economic benefits. Benefits corresponding to a given fiscal year, such as the amount of contribution to environmental protection and the avoidance of operational losses, are recorded only for that fiscal year. The basis for accounting for economic benefits is as follows.

    - Contribution of environmental protection activities to added value derived from production activities
      The Fujitsu Group recognizes support provided by environmental protection activities to production activities as an economic benefit. Accordingly, the amount of contribution is determined by multiplying the added value derived from production activities by the ratio of the maintenance and operation cost for environmental protection facilities to the total facility cost of each site.
      Contribution = Added value x Maintenance and operation cost for environmental protection facilities / total facility cost

    - Avoidance of operational loss at business sites due to non-compliance with laws and regulations
      The Fujitsu Group recognizes the avoidance of operational loss as the amount of loss that is avoided in the event of the materialization of risk arising from neglect to make upfront investments needed to comply with laws and regulations. The number of operational loss days is determined based on the size of investment related to the environment, but shall not exceed three days.

Benefit = Added value / Operational days x Operational loss days

- Benefit of public relations activities
  This benefit is calculated by converting publicity efforts related to environmental protection activities in newspapers, magazines and TV into an advertising cost.
  Benefit=Advertising cost of newspapers, magazines and TV x Number of advertisements ran and programs broadcast

- R&D benefit
  The Fujitsu Group calculates the amount of additional earnings resulting from the contribution of R&D achievements for environmental protection purposes, such as Super Green Products and environmental solutions.

*1 Fujitsu's major consolidated subsidiaries worldwide:
Fujitsu Isotec Limited, FUJITSU IT PRODUCTS LIMITED, FUJITSU I-NETWORK SYSTEMS LIMITED, Fujitsu Integrated Microtechnologies Limited., FUJITSU INTERCONECT TECHNOLOGIES LIMITED, FUJITSU VLSI LIMITED, ECOLITY SERVICE LIMITED, FDK CORPORATION, Fujitsu Optical Components Limited, FUJITSU KASEI LIMIED, FUJITSU LABORATORIES LTD., FUJITSU COMPONENT LIMITED, Shimane Fujitsu Limited, FUJITSU PERIPHERALS LIMITED, SHIN-ETSU FUJITSU LIMITED, SHINKO ELECTRIC INDUSTRIES CO. LTD., FUJITSU SEMICONDUCTOR LIMITED, FUJITSU SEMICONDUCTOR TECHNOLOGY INC., FUJITSU TELECOM NETWORKS LIMITED, FUJITSU TEN LIMITED, TOCHIGI FUJITSU TEN LIMITED, Transtron Inc., PFU LIMITED, Fujitsu Frontech Limited, Fujitsu Mobile-phone Products Limited, FUJITSU WIRELESS SYSTEMS LIMITED, FUJITSU COMPUTER PRODUCTS OF VIETNAM, INC., Fujitsu Network Communications, Inc., Fujitsu Telecommunications Europe Limited, FUJITSU TECHNOLOGY SOLUTIONS (HOLDING) B.V.

The Fujitsu Group also aggregates data on R&D costs and benefits related to environmental solutions from subsidiaries other than those shown above. However, the data is aggregated solely for environmental solution costs and benefits, so the relevant subsidiaries are not included in the scope of disclosure for major consolidated subsidiaries.

Fiscal 2011 Environmental Accounting Results

Breakdown of Results (Investment and costs) [billion yen]

Fiscal 2011 Environmental Accounting Results - Breakdown of Results (Capital investment, costs, economic benefits)

Item		Main areas covered	Capital investment (billion yen)	Costs (billion yen)	Economic benefits (billion yen)
Business area costs/benefits	Pollution prevention costs/benefits	Air/water pollution prevention, etc.	0.79(-0.30)	4.74(-0.08)	7.11(-0.07)
	Global environmental conservation costs/benefits	Global warming prevention, saving energy, etc.	1.76(+0.06)	3.13(+0.29)	1.72(+0.34)
	Resource circulation costs/benefits	Waste disposal, efficient utilization of resources, etc.	0.09(+0.07)	2.82(-0.05)	11.05(+0.41)
Upstream/downstream costs/benefits		Collection, recycling, reuse, and proper disposal of products, etc.	0.02(+0.02)	0.92(+0.10)	0.50(+0.06)
Administration costs/benefits		Provision and operation of environmental management systems, environmental education of employees, etc.	0.62(-0.20)	4.27(+0.76)	1.54(+0.61)
R&D costs/benefits		Research and development on products and solutions that contribute to environmental protection, etc.	0.35(-0.50)	20.94(+3.79)	49.14(+10.00)
Social activity costs		Donations to, and support for, environmental groups, etc.	0.00(±0.00)	0.03(-0.03)	-
Environmental remediation costs/benefits		Restoration and other measures related to soil and groundwater contamination, etc.	0.04(-0.04)	0.13(-0.90)	0.20(+0.20)
Total			3.66(-0.91)	36.99(+3.88)	71.25(+11.54)

- 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.

Costs and Economic Benefits in FY 2011

The results of this accounting for FY 2011 showed costs of 36.99 billion yen (an 11.7% increase from the previous year) and the economic benefits were 71.25 billion yen (a 19.3% increase from the previous year). Thus both costs and benefits increased. Also, our capital investment was 3.66 billion yen (a 19.9% decrease from the previous year).

## Reasons for Changes in Costs and Economic Benefits

Costs increased by about 3.9 billion yen compared to the previous year. This was due to increases of about 0.8 billion yen in management activities costs, and about 3.8 billion yen in R&D costs, although environmental remediation costs fell by about 0.9 billion yen. Environmental remediation costs decreased because soil and groundwater clean-up work was completed in FY 2010. Management activities costs increased as a result of a review of applicable cost items for environmental advertising. 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 11.5 billion yen compared to the previous year. Global environmental conservation benefits increased by about 0.3 billion yen, resource circulation benefits rose by about 0.4 billion yen, benefits from management activities increased by about 0.6 billion yen and R&D benefits increased by about 10.0 billion yen. The main reason for the increase in global environmental conservation benefits was higher actual economic benefits resulting from continuous investment in energy-efficient facilities at manufacturing sites. Our benefit from resource circulation increased as a result of reduced water supply usage following increased use of recycled water, and an increase in the gain on sale of used components at a subsidiary. The benefits from our management activities rose because of higher environmental advertising costs due to a review of applicable cost items for environmental advertising, resulting in higher estimated benefits from that environmental advertising. 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 2011. In the future, we will continue to refine environmental management by evaluating our environmental protection activities using environmental accounting.

Trends in Costs and Economic Benefits
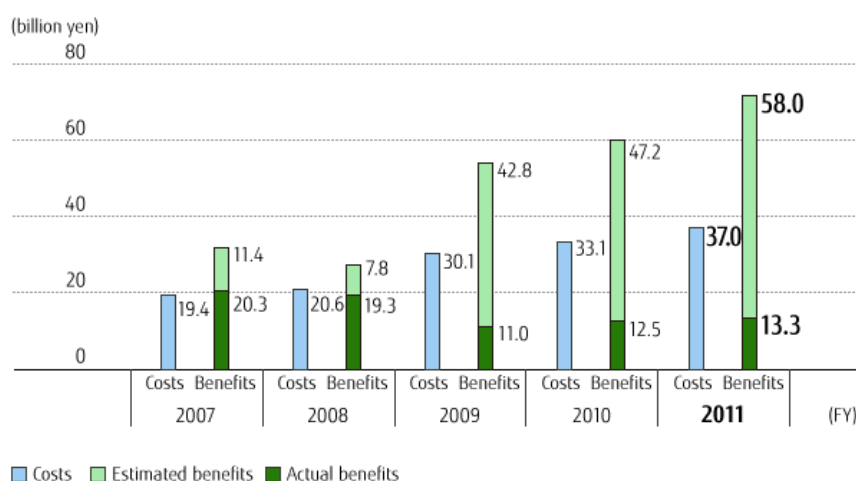
The History of Fujitsu's Environmental Activities

The History of Fujitsu's Environmental Activities

1935	Park-style design adopted for new Kawasaki Plant at suggestion of Fujitsu's founder, Manjiro Yoshimura.
1938	Kawasaki Plant completed.
1972	Environmental control sections established at each plant.
1987	Ozone Layer Protection Committee established.
1989	Environmental Committee established.
1990	Environmental management evaluation system implemented.
1991	Environmental Engineering Promotion Center established.
1992	Fujitsu's Commitment to the Environment formulated. Use of CFCs and carbon tetrachloride for cleaning eliminated. Energy Saving Committee established.
1993	Product Recycling Committee established. Waste Control Committee established. Fujitsu Environmental Protection Program (Stage I) formulated. Product Environmental Assessment Guidelines formulated. Domestic Affiliated Companies' Environmental Protection Council established. Environmental Information Service (FJ-CUG) inaugurated.
1994	First issue of Eco-Plaza environmental bulletin published. Use of 1,1,1-trichloroethane eliminated. 1st Fujitsu Group Environmental Technology Exhibition held. Fujitsu Environmental Emblem designed. Overseas Environmental Information Network began operations.
1995	Environmental Management System Committee established. Recycling system established and implemented. Fujitsu Group Worldwide Environmental Protection Council established.
1996	Fujitsu Environmental Protection Program (Stage II) formulated. Environmental Engineering Center homepage placed on intranet. Chemical Emissions Reduction Committee established. First Environmental Report published.
1997	Environmental homepage established on Fujitsu website. All domestic manufacturing sites certified ISO14001 compliant.
1998	Reforestation activities started in Thailand. Green Product program launched.
1999	Environmental accounting introduced. Reforestation activities started in Vietnam.
2000	Four development and service sites in Japan certified ISO14001 compliant. Corporate Environmental Affairs Unit established. Desktop PC awarded Eco-mark for first time.

2001	Fujitsu Environmental Protection Program (Stage III) formulated. Calendar using paper from sustainable forest published. Reforestation activities started in Malaysia.
2002	A world's first: Tin-zinc-aluminum lead-free solder developed. A world's first: Biodegradable plastic parts with lower environmental load employed in notebook computers. Fujitsu Group Environmental Policy established. A world's first: Magnesium alloy recycled in-house applied in notebook computers.
2003	Support for reforestation activities employing Rhythm Forest reforestation network game initiated. Zero waste emission achieved by all 13 plants in Japan.
2004	ISO14001 integrated certification acquired by all Fujitsu Limited sites, among largest systems in japan. 100% Green Product ratio achieved for all newly developed products. Fujitsu Group Environmental Protection Program (Stage IV) formulated.
2005	ISO14001 certification acquired by all Group companies in Japan. Supply of Super Green Products began.
2006	ISO14001 globally integrated certification acquired, including overseas Group companies. Established global environmental management framework for the Group as a whole.
2007	Fujitsu Group Environmental Protection Program (Stage V) formulated. Green Policy Innovation project, which reduces our customers' environmental load through green ICT, started.
2008	Green Policy 2020 medium-term environmental vision formulated.
2009	2009 Biodiversity Action Principles formulated.
2010	Fujitsu Group Environmental Protection Program (Stage VI) formulated.
2011	Environmental Management Dashboard operations began full-scale.

Contribution to Advanced Environmental Monitoring at an Industrial Estate in Thailand

Air pollution is responsible for 2 million deaths worldwide each year. This figure has raised concerns that air pollution will become the leading environmental factor in triggering early death in the future.

As a NEDO*1 collaborative research project promoted at the request of the Government of Thailand, Fujitsu has launched initiatives that will culminate in the development of an environmental monitoring system, as well as support for research into predictive modeling of volatile organic compound (VOC) diffusion and training for necessary engineers. The site of these efforts will be the Map Ta Phut industrial estate, home to Thailand's largest petrochemical complex.

Developed expressly to collect, monitor and analyze data on environmental pollutants, this system aims to prevent air pollution, as well as new or additional adverse health effects from it, even if the trend of industrial urbanization gains further momentum. Fujitsu is also supporting the creation of a basic research platform for predictive modeling of VOC diffusion by Thailand's Chulalongkorn University. Furthermore, to ensure continuous environmental management, Fujitsu will vigorously support technical training and the transfer of knowledge to people in Thailand.
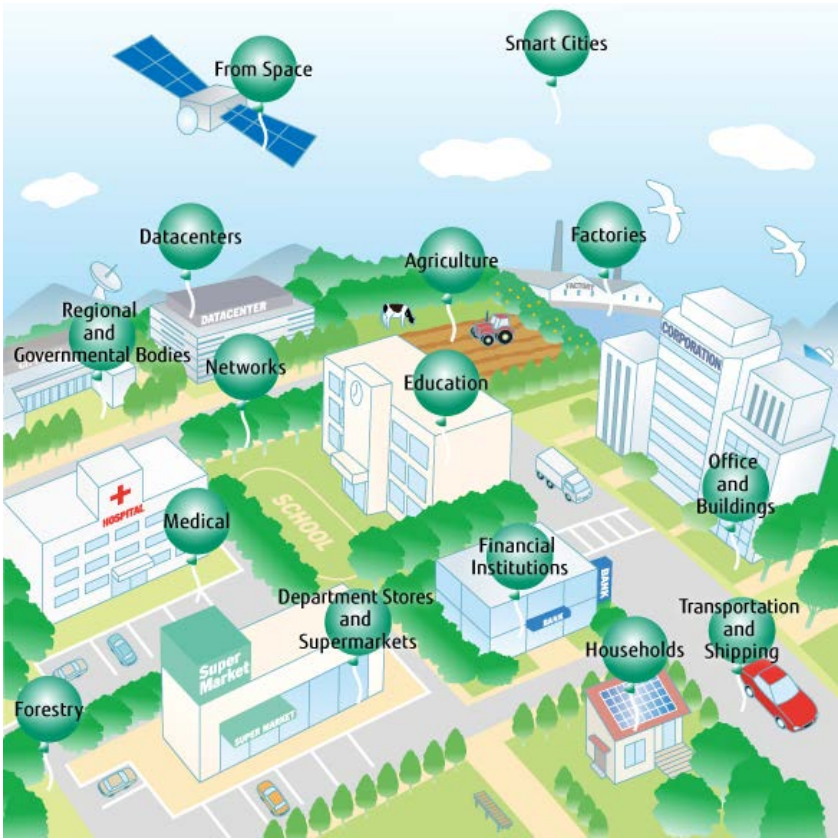
Fujitsu will keep working with the Government of Thailand, leveraging this project as a model case for a comprehensive environmental monitoring system that will assist Thailand in becoming a greener society.

*1 NEDO:
New Energy and Industrial Technology Development Organization of Japan

Fujitsu Group's Green ICT Helping Achieve a Low-Carbon, Prosperous Future

Through its advanced environmental solutions, services, and products, the Fujitsu Group's green ICT is helping to reduce the environmental burden generated by all aspects of our daily lives and by society. We are continuously widening the scope of our efforts in this field so we can help more countries and regions and more people.

Households

Energy-efficient PCs ESPRIMO desktop and LIFEBOOK notebook PCs	Plugs that measure power, temperature, humidity and illumination F-PLUG	PC recycling Recycling of Fujitsu-made PCs
Energy efficiency and conservation	Better visualization of power consumption for home electronics	Contribution to resource recycling

Household energy management Smart sensing platform (SSPF) V01
Control home electronics and energy devices over a network

Transportation and Shipping

Transport support solutions Onboard station (digital tachograph)	Logistics center system LOMOS/DJ	Traffic information data service SPATIOWL
CO_2 approx. **-19**%[1]	CO_2 approx. **-58**%[1]	Provides real-time traffic information

Wide-area highway transportation simulator
Creation of more eco-friendly transportation environments

Office and Buildings

Energy-efficient PCs ESPRIMO desktop and LIFEBOOK notebook PCs	Software to reduce PC power consumption Systemwalker Desktop Patrol	Measurement of power consumption Smart electrical outlets
Energy efficiency and conservation	CO_2 approx. **-17**%[1]	Visualization of power usage by connectivity devices
Workflow solutions for personnel and expenses GLOVIA smart workflow	e-ledger management software Interstage List Works	Building management system Futuric
CO_2 approx. **-46**%[1]	CO_2 approx. **-56**%[1]	CO_2 approx. **-47**%[1]

Regional and Governmental Bodies

Resident information solutions MICJET MISALIO	Automated system for issuing identifying documents Conbrio-J
CO_2 approx. **-18**%[1]	CO_2 approx. **-66**%[1]

Education

e-Learning system
Internet Navigware

CO_2 approx. **-93**%[1]

School campus administration system
Campusmate-J

CO_2 approx. **-54**%[1]

Public library package
iLisfiera

CO_2 approx. **-17**%[1]

Medical

Electronic health record system with integrated clerical functions
HOPE/EGMAIN-RX

CO_2 approx. **-41**%[1]

Regional medical network
HumanBridge

CO_2 approx. **-31**%[1]

Health management solution
HOPE/webH@ins-GX

CO_2 approx. **-55**%[1]

Factories

Environmental performance at manufacturing sites
Green manufacturing services

Further strengthen environmental performance and competitiveness at manufacturing sites

Environmental management system (management of pollutant emissions)
e-FEINS

Reduction in environmental risk

Facility management system
Futuric

CO_2 approx. **-47**%[1]

Production scheduling system
GLOVIA/SCP FA

CO_2 approx. **-60**%[1]

Production planning system for assembly work
GLOVIA/SCP FP

CO_2 approx. **-35**%[1]

Department Stores and Supermarkets

POS system for mass retail
TeamStore/M

CO_2 approx. **-31**%[1]

WebSERVE smart e-COMMERCE
Web-EDI purchasing transactions

CO_2 approx. **-35**%[1]

Financial Institutions

Solutions for the financial sector
ATM centeral journal system

CO_2 approx. **-65**%[1]

Currency image OCR system for financial institutions
KMASTER

CO_2 approx. **-59**%[1]

Networks

L2 switch
FLASHWAVE 2440

Power consumption approx. **-64**%*2

Gigabit ethernet PON system
GE-PON ONU

Power consumption approx. **-41**%*2

Network server
IPCOM EX2300

Power consumption approx. **-20**%*2

Standard switching hub
SH1516C

Power consumption approx. **-71**%*2

Real-time image transmission system
IP-900

Power consumption approx. **-24**%*2

Datacenters

Mission-critical x86 servers
PRIMEQUEST 1400 S2 Lite

Power consumption approx. **-79**%*2

PC server (IA server)
PRIMERGY RX300 S7

Energy consumption rate approx. **-73**%*2

PC server (IA server)
PRIMERGY RX200 S6 energy-saving model

Power consumption approx. **-33**%*2

Blade server
PRIMERGY BX900/BX400

Achieve operations with low power consumption

Disk Arrays
ETERNUS DX8700 S2

Power consumption approx. **-52**%*2

System operation automation and job schedules
Systemwalker Operation Manager

CO_2 approx. **-29**%*1

More energy efficient storage operations
ETERNUS SF Storage Cruiser
ETERNUS SF Advanced Copy Manager

CO_2 approx. **-28**%*1

Private cloud-compatible software
Systemwalker Service Catalog Manager
Systemwalker Software Configuration Manager
Systemwalker Runbook Automation
ServerView Resource Orchestrator

Reduction in server units of approx. **-50**%*3

Multi-point temperature management
Optical fiber temperature measurement system

Detailed visualization of temperature distribution in real time

Support for green facility development
Green Infrastructure Solutions

More energy-efficient datacenter facilities

Operational automation
Systemwalker Runbook Automation

CO_2 approx. **-28**%*1

Smart Cities

Smart networks
WisReed smart network technology; smart network management solutions

Collection and management of smart meter data

Cloud-based energy management system
Enetune

Centralized management of power data and forecasting of power demand for multiple bases

Energy management in living environments
Smart sensing platform (SSPF) V01

Control home electronics and energy devices over a network

Atmospheric measurement and countermeasures services

Quickly and precisely measure and devise countermeasures for corrosive substances in the air

Agriculture

Agriculture Cloud	Solutions promoting greater agricultural activity NetSeeds	Collection of farmland data Farm data sensing network
Support for agricultural management	CO_2 approx. **-59**%[1]	Improved quality and less pesticides

Forestry

Hyperspectral imaging analysis
Accurate categorization of forest tree species

From Space

Contribution to the IBUKI project, a satellite with technology for observing greenhouse gases

*1:
Calculated using an environmental impact evaluation methodology developed by Fujitsu Laboratories Limited

*2:
Comparison relative to power consumption during use for earlier products.

*3:
Internal Fujitsu examples.

Conducting PC Power Consumption Measurement Trials for the City of Yokohama

In June 2011, as part of the effort to comply with the government directive for energy conservation in the face of looming summer power shortages, the City of Yokohama, together with Fujitsu Limited and the Fujitsu Research Institute, used smart power sockets to conduct trials that measured the effectiveness of power-saving settings on the PCs used at the city office.

The trials showed that using the power-saving setting on all the office PCs in Yokohama could reduce overall power consumption by an estimated 220,000 kWh annually.

The use of smart power sockets not only allows electric power consumption to be measured, it also visualizes in a quantifiable way the power savings gained by changing settings and improving the ways in which office equipment is used. Effective strategies for reducing power consumption during peak load hours can also be formulated. Fujitsu and the Fujitsu Research Institute will continue to use these smart power sockets to render the power consumption of office equipment visible, and help customers achieve their energy savings goals.

Smart power socket
(used for measuring power consumption)
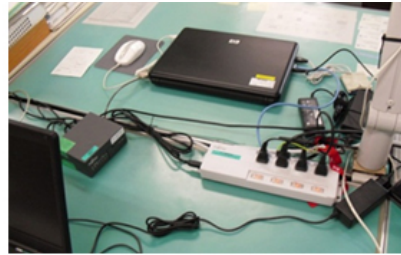
Connecting a gateway,
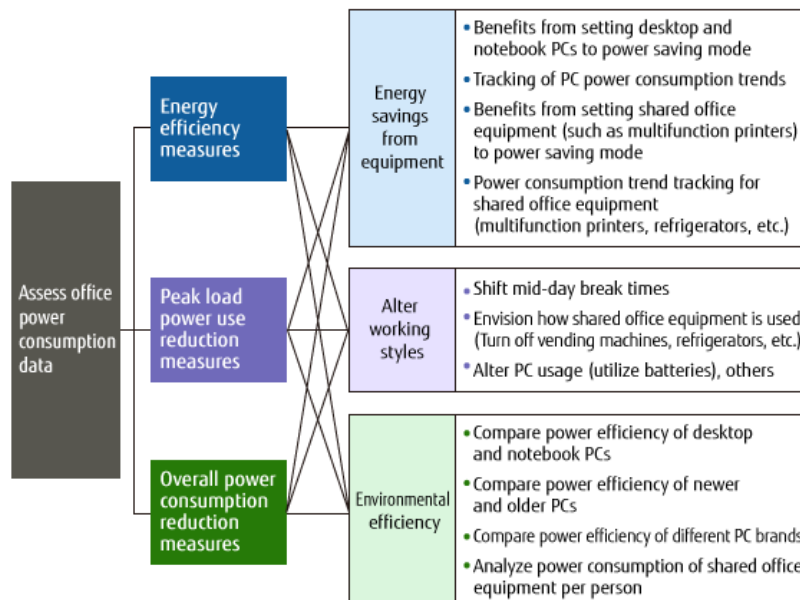a smart power socket and a notebook PC

PC Power Consumption per Hour throughout the Yokohama of City and Reductions by Power-saving Settings

(Estimated Values)

Equipment	Units*	Before power-saving settings		After power-saving settings		Reduction (entire city)	Reduction rate
		Power consumption (per unit)	Power consumption (entire city)	Power consumption (per unit)	Power consumption (entire city)		
Total	24,415 units	–	873,939.2Wh	–	755,360.2Wh	−118,579.0Wh	−13.6%
Desktop PCs	7,847 units	66.4Wh	521,040.8Wh	53.4Wh	419,029.8Wh	−102,011.0Wh	−19.3%
Notebook PCs	16,568 units	21.3Wh	352,898.4Wh	20.3Wh	336,330.4Wh	− 16,568.0Wh	− 4.7%

*Number of office-use PCs (excl. Transportation Bureau and Waterworks Bureau) for the City of Yokohama City as of July 20, 2011

Examples of Points of Analysis and Proposed Measures Using Smart Power Sockets

Assess office power consumption data

Energy efficiency measures

Peak load power use reduction measures

Overall power consumption reduction measures

Energy savings from equipment
- Benefits from setting desktop and notebook PCs to power saving mode
- Tracking of PC power consumption trends
- Benefits from setting shared office equipment (such as multifunction printers) to power saving mode
- Power consumption trend tracking for shared office equipment (multifunction printers, refrigerators, etc.)

Alter working styles
- Shift mid-day break times
- Envision how shared office equipment is used (Turn off vending machines, refrigerators, etc.)
- Alter PC usage (utilize batteries), others

Environmental efficiency
- Compare power efficiency of desktop and notebook PCs
- Compare power efficiency of newer and older PCs
- Compare power efficiency of different PC brands
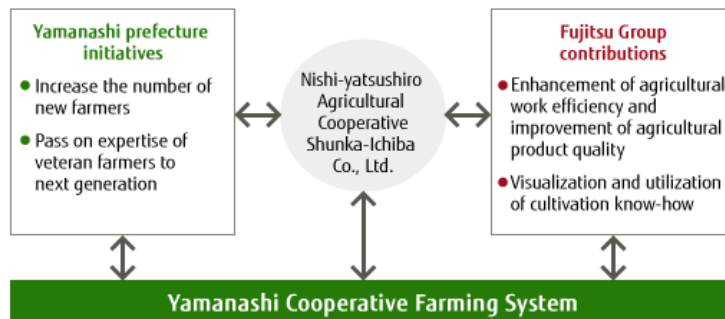- Analyze power consumption of shared office equipment per person

Fujitsu's ICT Helping Revitalize Agriculture in Yamanashi Prefecture

Fujitsu utilizes ICT to provide support for primary industries with the aim of encouraging sustainable use of agricultural products and other living resources. As one example of this initiative, on March 14, 2012, we began a field trial for the cultivation of sweet corn using the farm-information sensing network developed by Fujitsu for the "Yamanashi Cooperative Farming System," to help revitalize local agriculture.

Sensor boxes incorporating temperature and humidity sensors with a simple camera were set up at a sweet corn cultivation field owned by the Nishi-yatsushiro Agricultural Cooperative and Shunka-Ichiba Co., Ltd. These boxes collect data on the temperature and humidity both inside and outside the vinyl tunnels covering the corn, and capture images of the coverings opening and closing. The data collected are analyzed to determine the ideal temperature and humidity for cultivation inside the tunnels. It also quantifies the know-how of veteran farmers, and is expected to be useful in training new farmers and assisting companies entering the business.

Sensors at a sweet corn field

Yamanashi prefecture initiatives
- Increase the number of new farmers
- Pass on expertise of veteran farmers to next generation

Nishi-yatsushiro Agricultural Cooperative Shunka-Ichiba Co., Ltd.

Fujitsu Group contributions
- Enhancement of agricultural work efficiency and improvement of agricultural product quality
- Visualization and utilization of cultivation know-how

Yamanashi Cooperative Farming System

- About "Green Policy Innovation": Contribute to reducing the environmental Burden of customers and society

Leading-Edge Green ICT Research and Development

We are concerned with reducing environmental burdens from the initial policy formulation stages in our leading-edge research and development, and are continuously creating technologies that contribute to saving energy and the use of next-generation sources of energy.

Basic Approach

Promote the Development of Products and Services that Contribute to Lower Environmental Burdens

To achieve the goal of reducing CO_2 emissions by about 30 million tons a year in Japan by 2020, as proposed in our medium-term environmental vision Green Policy 2020, we need to develop revolutionary leading-edge technologies that are even more effective at reducing environmental impact.

Fujitsu Laboratories Ltd., which handles the Fujitsu Group's leading-edge green ICT R&D, has introduced the slogan "Further 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 help 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 to facilities, systems and solutions.

Initiatives in FY 2011

Quantitatively Evaluating CO_2 Emissions Reduction Benefits from the R&D Stage

To accelerate our environmentally oriented R&D, for all of our leading-edge technologies being developed, starting from the initial R&D phases, Fujitsu Laboratories promotes initiatives to quantitatively evaluate the benefits in reduced CO_2 emissions (i.e., the environmental contribution) to be expected from the use of its products and services. These efforts are implemented across all units in our laboratories, and since researchers can evaluate the technologies they are responsible for, 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 of leading-edge technologies that is balanced across all three of these axes becomes possible.

Basic Approach to Research and Development

Promoting the development of revolutionary leading-edge technologies with green ICT as a priority area

- Rendering visible the low-carbon benefits across the entire value chain
- Low-carbon technologies for ubiquitous equipment
- Energy-saving technologies for datacenters and networks
- Environmental solution technologies

Exhibiting synergies between total technology development and open innovation

- Consolidation of elemental technologies from materials and devices to solutions
- Global technology coordination

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 next-generation datacenters and networks, and the area of solutions.
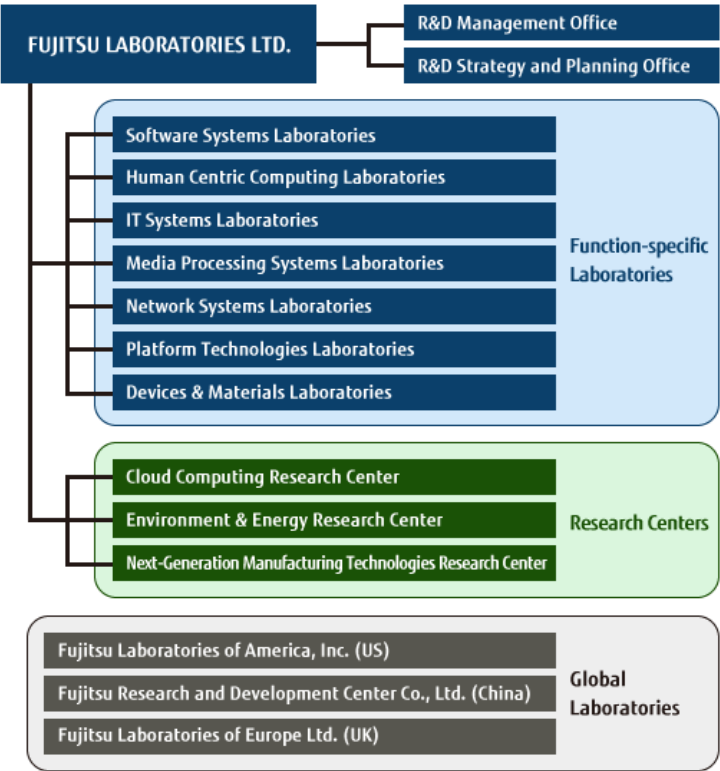
The target for the next-generation datacenter and network area is developing technologies that can double the overall efficiency of ICT equipment by the end of FY 2012 (April 2012 - March 2013). The target for the solutions area, also by the end of FY 2012, is to increase by at least 70% the development ratio for technologies that improve the effective reduction of environmental burdens.

In FY 2011 (April 2011 - March 2012), we cleared the target of developing technologies that can increase ICT equipment efficiency by 1.5 times. In the solutions area, meanwhile, we were able to achieve a development ratio of 61% for technologies that improve the effective reduction of environmental burdens, and thus met our target of 60% for the fiscal year.

While further increasing the environmental contribution of our leading-edge technologies, Fujitsu Laboratories will aim to expand the

application areas to areas such as complete systems, including those in which the individual technologies, operations and management work together.

Organization of Fujitsu Laboratories Ltd. (As of March 2012)

- **FUJITSU LABORATORIES LTD.**
  - R&D Management Office
  - R&D Strategy and Planning Office

- **Function-specific Laboratories**
  - Software Systems Laboratories
  - Human Centric Computing Laboratories
  - IT Systems Laboratories
  - Media Processing Systems Laboratories
  - Network Systems Laboratories
  - Platform Technologies Laboratories
  - Devices & Materials Laboratories

- **Research Centers**
  - Cloud Computing Research Center
  - Environment & Energy Research Center
  - Next-Generation Manufacturing Technologies Research Center

- **Global Laboratories**
  - Fujitsu Laboratories of America, Inc. (US)
  - Fujitsu Research and Development Center Co., Ltd. (China)
  - Fujitsu Laboratories of Europe Ltd. (UK)

High-Performance Distortion-Compensation Circuit, Enabling Compact and Energy-Efficient Ultra-High-Capacity Fiber-Optic Transmission Systems

In September 2011, Fujitsu developed a digital signal processing algorithm to compensate for waveform distortions in signals transmitted by fiber-optic cables in long-haul transmission systems of 100 km or more.

When transferred over long distances of hundreds of kilometers by fiber-optic lines, ultrafast signals carrying data at speeds of 100 Gbps or more suffer from waveform distortion caused by nonlinear optical effects, making it difficult for the signal to be correctly received. This has prompted research into nonlinear compensation technology, which can restore the signal received with distortion to a clean waveform. Using conventional methods, however, the implementation of nonlinear compensation technology would require massive circuits, and reducing the scale required of such circuits, therefore, has been a pressing issue. In September 2010, Fujitsu developed a proprietary technology that would dramatically simplify these circuits. However, ongoing improvements in terms of circuits that are more compact and consume less electricity are still needed.

This latest Fujitsu technology will make it possible to deliver circuits that are more compact and have lower power consumption than ever before. Networks using this technology would enable the utilization of massive data volumes at ultra-high speeds, resulting in networks capable of supporting the next generations of smartphones and cloud services.

Striving toward commercialization of this technology around 2015, Fujitsu is studying a wide range of potential applications, among them the technology's use in high-capacity short-range transmissions, such as those used in datacenters and access networks.

Compensation Circuit Comparison
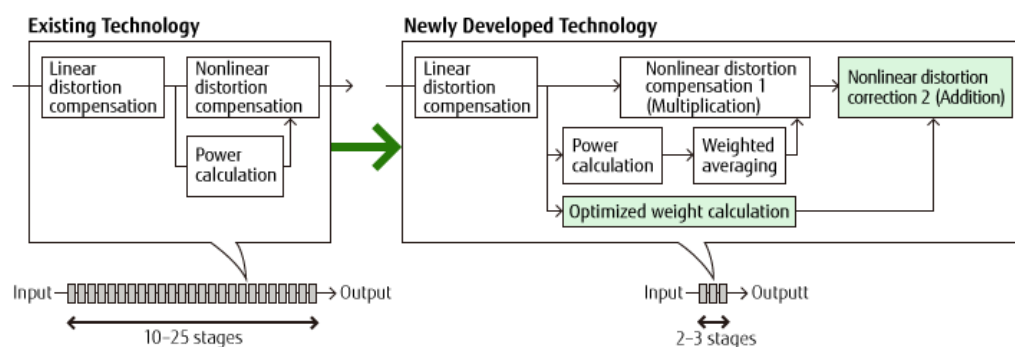
- [Fujitsu Develops High-Performance Distortion-Compensation Circuit, Enabling Compact and Energy-Efficient Ultra-High-Capacity Fiber-Optic Transmission Systems [Press Release]](#)

Cooling Technology That Utilizes a CPU's Waste Heat

In November 2011, Fujitsu developed cooling technology that employs waste heat generated by CPUs to produce chilled water that can be used to cool server rooms.

Most factories currently produce chilled water using electricity as a way to cool equipment. However, efforts are also being undertaken to produce chilled water from high-temperature waste heat.

Effectively utilizing heat from CPUs to continuously chill water as a coolant requires hot water that is consistently at 65°C or above. Accordingly, the cooler (below 65°C) waste heat from CPUs was long thought to be unsuitable for the production of chilled water. The variable loads on CPUs also result in inconsistent temperatures, another factor that has made exploiting waste heat from ICT equipment difficult. Consequently, this waste heat has typically been vented outside by air conditioning, without being used productively for cooling.

Against this backdrop, Fujitsu's new cooling technology has made it possible to continuously produce chilled water using the relatively cool 55°C waste heat that CPUs emit. Using water chilled by the waste heat from CPUs in air-conditioning systems can reduce total air-conditioning power requirements for a datacenter by roughly 20%. This means that power consumption by a single server rack can be cut by as much as 12,000 kWh per year, or a volume of CO_2 equivalent to that absorbed by 360 cedar trees.

Going forward, we are working to increase the reliability of these technologies, and expanding their scale and space efficiency, with the goal of deploying them in datacenters around 2014. Moreover, Fujitsu aims to utilize low-temperature waste heat in areas beyond datacenters, like factories, office buildings, and solar power generators.

Overview of Cooling Technology Using CPU Waste Heat
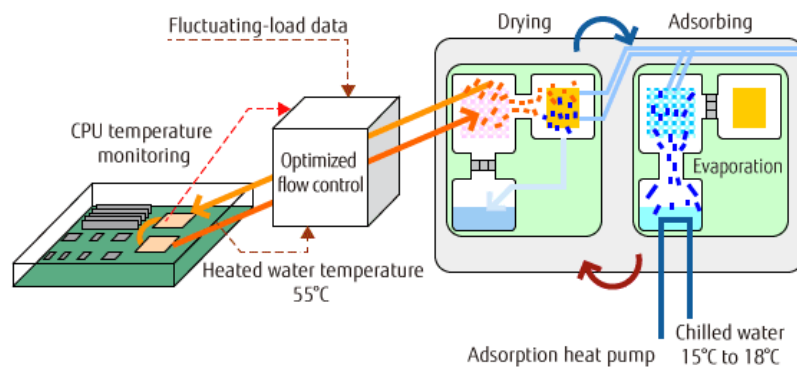
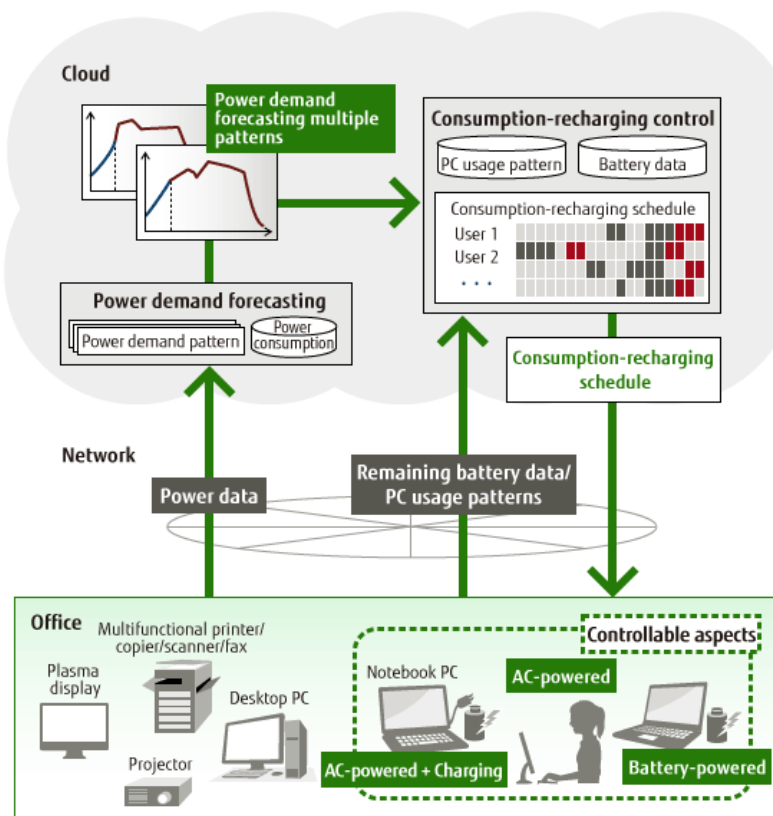- Fujitsu Develops Cooling Technology That Utilizes a CPU's Waste Heat [Press Release]

Industry's First Peak Power Demand Reduction Technology for Deployment in Smart Cities

In December 2011, Fujitsu developed the industry's first peak power demand reduction technology intended for deployment in smart cities.

There is growing expectation in Japan that new power sources will be utilized to address power supply shortages resulting from the impact of the Great East Japan Earthquake. This is likely to lead to the installation of multiple storage batteries in a variety of locations. It is anticipated that there will be greater need for a mechanism to enable peak power demand reduction and demand balancing. When the technology is actually deployed in smart cities, the ability to control the charge and consumption of electricity from multiple storage batteries across the community, as well as to cut peak power demand in stages across the entire smart city, will be essential. However, for small communities, power consumption will vary significantly depending on the number of users and electrical devices utilized, making it difficult to accurately forecast such fluctuations. Electricity consumption-recharging schedules, therefore, will need to take into consideration increases in peak power demand and the lifespan of storage batteries.

With Fujitsu's new technology, a wide range of data-including the power consumed by each office and residence, as well as other usage patterns and the charge levels of storage batteries-is collected in the cloud. By enabling cloud-based integrated control of storage batteries, peak power demand can be effectively reduced. Going forward, Fujitsu aims to deploy this technology in smart cities to help realize societies that are better able to supply their own energy needs and ensure energy supply stability.

Peak Power Reduction Technology Applied to an Office Setting

- Fujitsu Develops Industry's First Peak Power Demand Reduction Technology for Deployment in Smart Cities [Press Release]

Automated Network Design Technology for Power Reductions of 20%
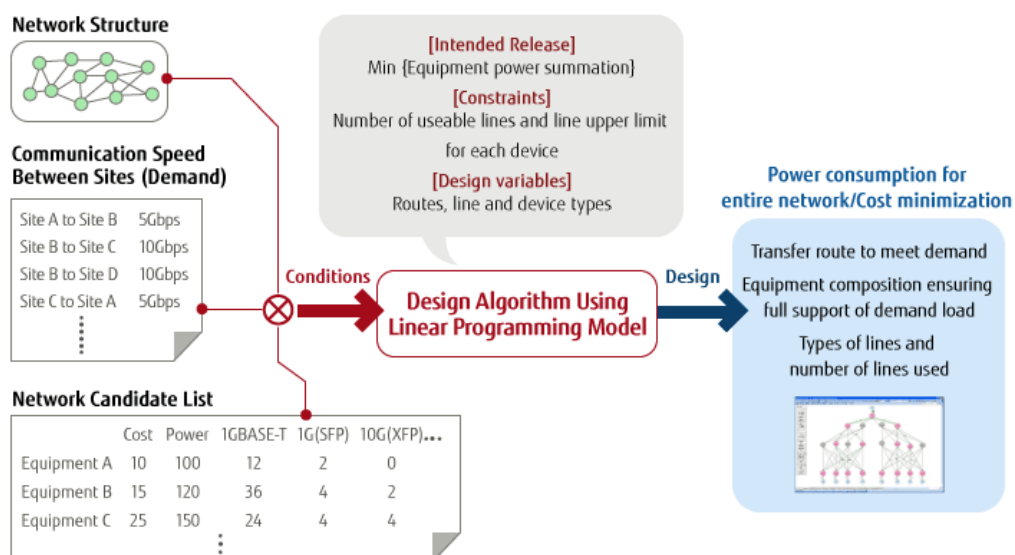
In August 2011, Fujitsu successfully developed an automated design technology that fulfills requirements for communication speed and network architecture required for Ethernet networks, while enabling overall network power consumption to be reduced by roughly 20% compared to previous levels.

Conventionally, network design has involved putting top priority on accommodating data traffic at peak times; thus system engineers would augment high-speed lines and design the layout of high-performance network devices to accomplish this. Depending on the network devices and line connections, engineers faced the problem of limiting power consumption when it was high, and had to consider a multitude of design conditions, such as communication speeds between sites. As a consequence, the overall picture was often difficult to grasp and excess power consumption tended to occur.

This new automated design technology not only makes it possible to reduce network power consumption but also to design low-cost networks with the customer's preferred network architecture, communication speeds and devices.

Looking ahead, we intend to further develop this technology so it can be applied to non-Ethernet networks, and conduct further research with a view to its commercial viability.

Overview of Automated Network Design Technology

Network Structure

Communication Speed Between Sites (Demand)

Site A to Site B	5Gbps
Site B to Site C	10Gbps
Site B to Site D	10Gbps
Site C to Site A	5Gbps

Network Candidate List

	Cost	Power	1GBASE-T	1G(SFP)	10G(XFP)...
Equipment A	10	100	12	2	0
Equipment B	15	120	36	4	2
Equipment C	25	150	24	4	4

Conditions ⊗ → **Design Algorithm Using Linear Programming Model**

[Intended Release]
Min {Equipment power summation}
[Constraints]
Number of useable lines and line upper limit for each device
[Design variables]
Routes, line and device types

Design → **Power consumption for entire network/Cost minimization**

Transfer route to meet demand
Equipment composition ensuring full support of demand load
Types of lines and number of lines used

-

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 as highlighted below.

Eco-Friendly 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 strive to develop eco-friendly products that reflect environmental considerations in such areas as energy saving, 3R design[*1], 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)."

To promote Green Product development across Fujitsu globally, we established an internal standard, the Eco Design Standard[*2], that conforms to the IEC 62075[*3] international standard and strives to meet the environmental requirements of the market. Fujitsu PCs and servers are designed in both Japan and Europe and are provided globally. In FY 2011, another 22 products were recognized as being Super Green Products.

Mechanism for Green and Super Green Product Evaluation
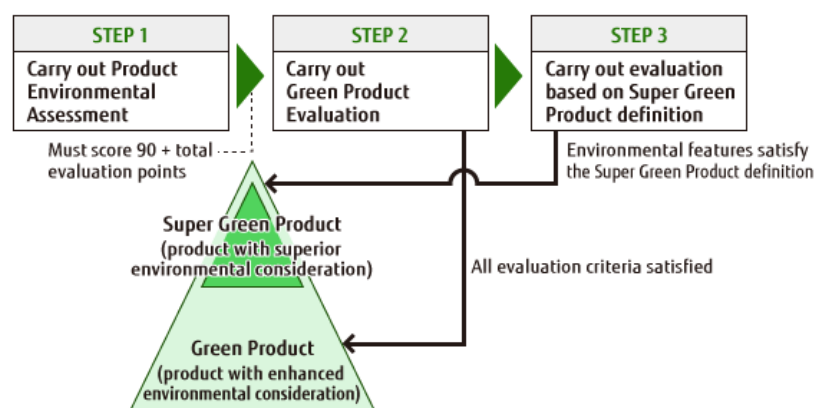
*1 3R design:
Design based on the principles of reduce, reuse and recycle

*2 Eco Design Standard:
Covered equipment is PCs, servers, and storage systems.

*3 IEC 62075:
Audio/video, information and communication technology equipment-Environmentally conscious design. This standard was published in 2008 and established as JIS C 9914 in 2010 in Japan.

PRIMERGY RX300 S7, the PC server that improves energy consumption efficiency by as much as 73%

Companies doing business globally need to ensure the datacenters they operate in each country are environmentally friendly. Improving energy efficiency not only enables operators to process a greater volume of data within their existing power capacity without placing a burden on their cooling systems, but also leads to reduced environmental impact. Given these needs, Fujitsu's PRIMERGY RX300 S7 is the world's first single-node server to exceed 5,000 overall ssj_ops per Watt under the SPECpower ssj®2008*4 benchmark for server energy efficiency.

PRIMERGY RX300 S7

ServerView Suite is a server management solution that supports simplified and automated PRIMERGY energy management, and enables PCIe ports to be automatically turned off when not in use. Coupled with state-of-the-art technology, like power supply units boasting a 94% conversion efficiency rate, we improve energy efficiency by up to 73% over our previous products, helping Fujitsu to set a new record under SPECpower_ssj ®2008. Readily recyclable materials were also employed, and make up more than 99% of the total material utilized for the server itself.

*4 SPECpower_ssj ®2008:
A benchmark developed and sold by Standard Performance Evaluation Corporation (SPECR) for measuring the energy efficiency of mass-market computers.

Senior Vice President, Fujitsu Technology Solutions Product Development Group
Jens-Peter Seick

For datacenters, making the most efficient use of available resources is a challenge that requires substantial investment and time. The Fujitsu Group offers a multitude of innovations that are up to the task. We will provide products tailored to our customers' efficiency and performance needs, regardless of datacenter scale.

The ESPRIMO Q910, Reducing Carbon Footprint Across the Lifecycle

By employing a high-efficiency power unit, the ESPRIMO Q910 delivers reduced heat output and power consumption in response to customer needs for greater energy conservation. The compact design takes up less desktop space, and the eye-catching design was named a winner of the "red dot design award" in 2012.

Because most compact PCs use an external AC adapter, the typical AC adapter has a standard conversion efficiency of 87%. The ESPRIMO Q910, on the other hand, offers a power supply unit that achieves 90% conversion efficiency installed on a chassis just 1.9 liters in volume, while still enabling HDD and memory expansion.

ESPRIMO Q910

In addition, many of the models in the ESPRIMO series use halogen-free printed circuit boards, in a further effort to reduce environmental impact. The elimination of halogen and PVC*5 from chassis parts has already been adopted by the various eco-labels, but with the ESPRIMO line, Fujitsu has succeeded in removing PVC from cable insulation and the plastic parts used in fans, and also offers customers PVC-free power cords.

*5 PVC:
Polyvinyl chloride

VOICE

Fujitsu Technology Solutions Work Place Systems, Research & Development, Hardware
Peter Kastl

While it was a challenge for us to meet all of the needs involving safety, production, and serviceability, we were faced with particular difficulties in ensuring scalability.

New ATM FACT-V X200's Default Eco Mode Cuts Power Use by About 40%

FACT-V X200 uses about 40% less power than our earlier models*6 when running in its default eco mode. When not in use for a specified time, FACT-V X200 shifts into super eco mode, automatically shutting down the unit to reduce standby power consumption by around 75%*6.

This Super Green Product was designed with the environment in mind, using recycled plastic and plant-based resin for some of its parts and aiming for a higher product recycling rate. It also offers much better operability, with a next-generation bill recycling unit offering top-class domestic currency storage capacity, compatibility with diverse operation procedures, and highly reliable design.

*6:
Compared with Fujitsu's earlier models FACT-V and FACT-V model10

FACT-V X200

Project Manager, Technology Department I, Financial Systems Business Group, Fujitsu Frontech Limited Satoshi Mukaikawa

ATM components cover very extensive ground, from control units to mechanical units, firmware, middleware, and applications. We succeeded in drastically reducing power consumption by clarifying numerical targets right from the start of development, putting the engineers charged with various aspects of development on the same page, and taking committed steps to reduce power consumption at the component level.

- Eco-Friendly Products : Case Study Archives

Using the Eco-Efficiency Factor to Reduce Product Environmental Burden

We introduced the eco-efficiency factor*7, which simultaneously evaluates both environmental burden reductions and product value increases 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 2011, we also revised our targets upwards based on actual results as of the end of FY 2010. In FY 2011, we exceeded our newly established target of 3.5, with an actual result of 4.1. Product lines primarily responsible for contributing to these results included our photonics solutions, mission critical IA servers, and our base stations. These improvements were achieved in part through improvements in transmission speeds and data processing capabilities, and through reductions in product weight and energy consumption.

*7 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.

Eco-efficiency Factor
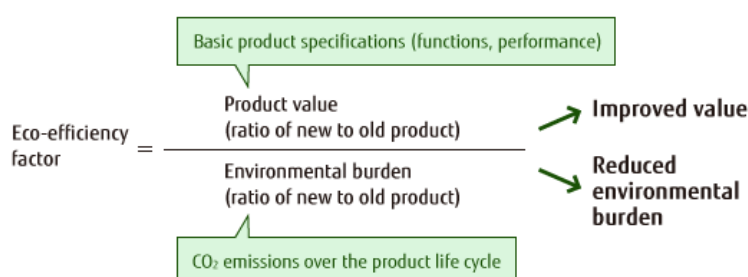
## Carrying Out Life Cycle Assessment (LCA)

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*8.

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 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.

*8 Own database:
Our own unique database of unit values, created by Fujitsu Laboratories based on input-output tables.

IPCOM EX2500 LCA Improvement Effects (CO_2 emissions)
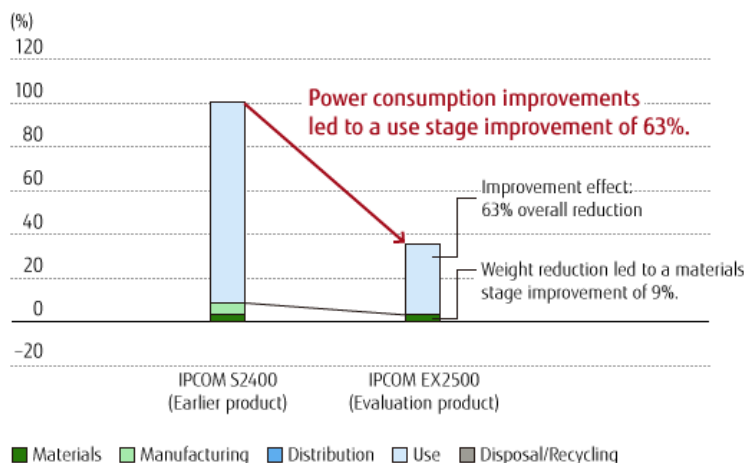
Promoting 3R Design

Through its proprietary product environmental assessments and Green Product evaluations, the Fujitsu Group is working to apply a wide variety of 3R-friendly technologies that conserve resources and improve recyclability. Technologies being incorporated into our products that are effective in conserving resources include ways to reduce the number of parts and cables, to save space through improved performance and more tightly integrated design, and digitization of manuals and other documentation.

We are also working to improve recycling rates by utilizing readily reusable parts from the product design stage; and by putting a recycling structure in place, we promote the recovery and recycling of used ICT equipment. For example, usable parts are separated and extracted from products returned from leasing, and after checks to verify they are of the same quality as new parts, are either reused as parts in new products or as spare parts for maintenance.

Eco-Friendly Packaging

Fujitsu is working on a variety of methods for reducing use of packaging and cushioning materials. Traditionally, notebook computers were shipped packaged in individual cardboard boxes, but by placing multiple units in a single returnable container, we have reduced shipping space and succeeded in eliminating cardboard waste. For larger products, we have replaced existing foam cushioning materials with returnable air packs, significantly reducing CO_2 emissions. We also use soy-based inks, which are lower in volatile organic compounds (VOCs), a known atmospheric pollutant, to print the boxes used in packaging PCs and other equipment.

Reducing Specific 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 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 regulations in Japan but also applies to global regulations on chemical substances included in products.

- **Fujitsu Group Specified Banned Substances** [145KB]
- **Fujitsu Group Specified Reportable Substances** [150KB]
- **Fujitsu Group Specified Controlled Substances** [65KB]

Management of Chemical Substances Restricted or Banned by Law

"Fujitsu Group Specified Banned Substances" comprise two separate categories: universally banned substances and substances that are banned at the national and/or regional level.

We have also established a Fujitsu Group Green Procurement Direction and strengthen control of the chemicals in our products by taking the initiative in directing our suppliers to construct chemical management systems (CMSs).

- Green Procurement

In response to regulations such as the RoHS Directive*1, 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.

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

Framework for RoHS Directive Compliance
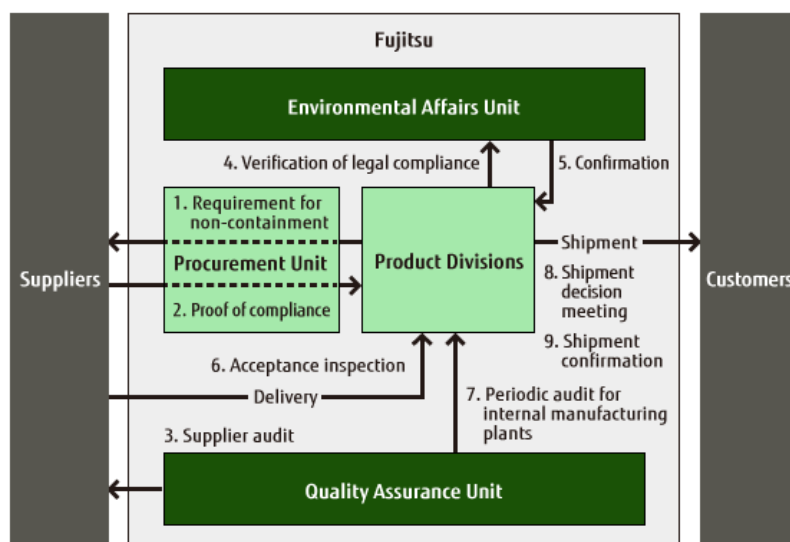
* Fujitsu Group companies are also constructing own frameworks based on the above figure.

Controlling Substances of Concern

The Fujitsu Group Specified Reportable Substances list includes substances that are REACH regulation[*2](#) candidate substances[*3](#), 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. For example, the Fujitsu ESPRIMO Q910 desktop PC, which made its market debut in June, 2012 mainly in Europe, adopted halogen-free printed circuit boards (PCBs) and a (partially) PVC-free approach.

*2 REACH regulation:
Regulation concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals

*3 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 participate in activities such as the Joint Article Management Promotion consortium (JAMP) to contribute to the design, construction and widespread adoption of mechanisms that can transmit information effectively.

Among these industry groups, 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.

The Fujitsu Group is not only actively monitoring substances specified under REACH regulations; since June 2011 we have also been introducing AIS across the Group in order to better understand and manage the presence and utilization of substances suspected to contain hazardous elements. Moving forward, we hope to effectively utilize the data we have collected to make significant contributions toward minimizing the impact of chemical substances on people and the environment.

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 in-house expertise.

- [The PLEMIA/ECODUCE website (in Japanese)](#)

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.

Recycling Activities that Conform to the Concept of Producer Responsibility

In accordance with the concept of Extended Producer Responsibility (EPR*1), 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.

*1 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.

Targets and Achievements in Stage VI of the Environmental Protection Program

Targeting a sustained 90% resource reuse rate*2 of business ICT equipment globally at Fujitsu recycling centers, in FY 2011 we achieved a rate of 94.1% (90.9% within Japan and 98.5% overseas).

*2 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.
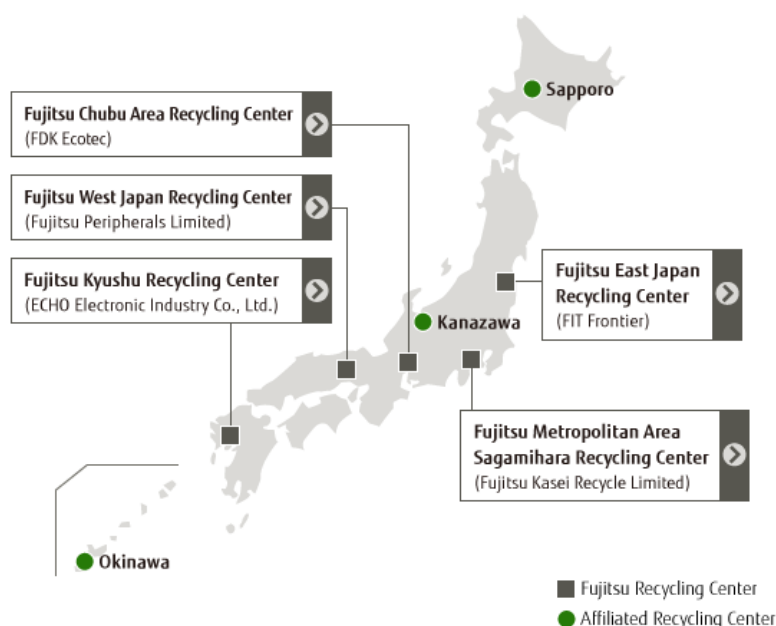
Promoting product recycling efforts in Japan

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).

Wide Area Industrial Waste Disposal Certificate

Fujitsu Recycling Centers Throughout Japan

Fujitsu Chubu Area Recycling Center
(FDK Ecotec)

Fujitsu West Japan Recycling Center
(Fujitsu Peripherals Limited)

Fujitsu Kyushu Recycling Center
(ECHO Electronic Industry Co., Ltd.)

● Sapporo

Fujitsu East Japan
Recycling Center
(FIT Frontier)

● Kanazawa

Fujitsu Metropolitan Area
Sagamihara Recycling Center
(Fujitsu Kasei Recycle Limited)

● Okinawa

■ Fujitsu Recycling Center
● Affiliated Recycling Center

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 5,487 tons of recycled ICT products from corporate customers (used ICT products for business applications) in FY 2011, and achieved a resource reuse rate of 90.9%. Also, we have now collected a total of 83,358 end-of-life PCs from individual customers.

Trends in Resource Reuse Rate of End-of-Life Business ICT Products

| FY	2008	2009	2010	2011
Resource reuse rate	91.5%	90.8%	90.6%	90.9%

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
Management System
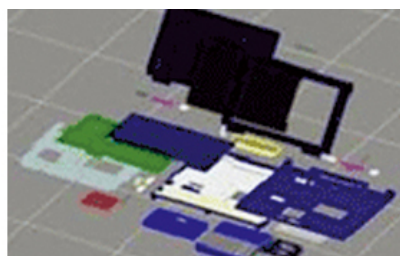
Animated disassembly manuals

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.

Plastic material identification equipment

Ballpoint pens and folders made from recycled plastic

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.

Fujitsu Integrated Recycling Process
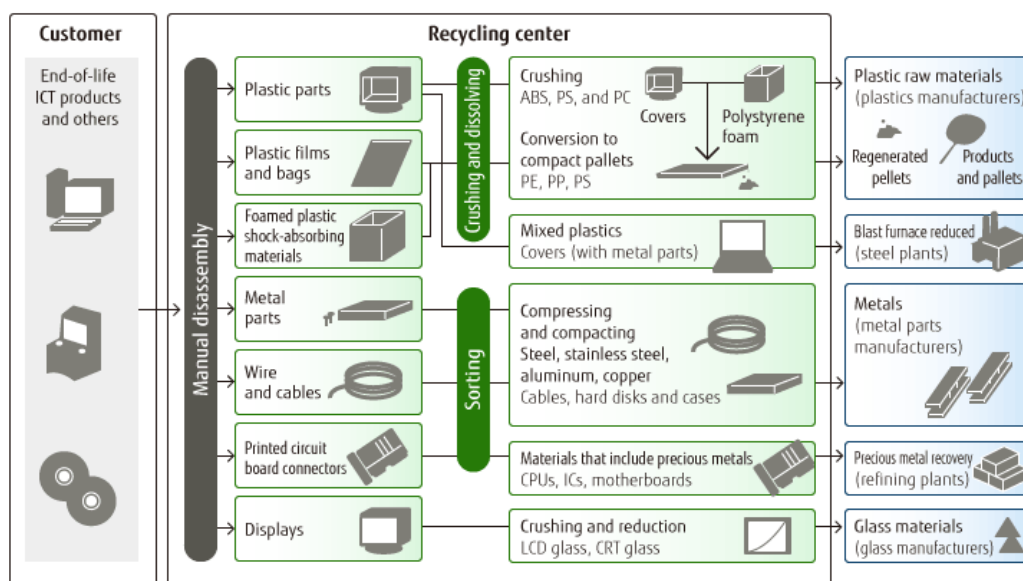
Developing a Traceability System

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.

Integrated Recycling Information Management System

Operation of Security Systems

A high level of security is maintained at Fujitsu Recycling Centers by using infrared cameras to monitor automatically for intruders and check the storage status of the accepted products.

Security system

Security camera monitoring system

Providing services to customers

We provide recycling services for our customers.

- ICT product disposal and recycling(in Japanese)

Promoting Product Recycling Overseas

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).

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 2011we processed 3,468 tons of waste ICT products and achieved a resource reuse rate of 98.5%.

Visitor experiencing PC disassembly in the FTS environmental booth.

To disseminate these activities widely, at CeBIT 2010, the world's largest ICT related trade show held in Germany in FY 2010, we both presented our recycling efforts and demonstrated PC disassembling at our booth and were honored by a visit from Germany's environment minister.

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)

Environmental Labeling and Information Disclosure

We will actively disclose environmental information about our products to customers.

Disclosure of Environmental Information on Products

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 PCs under the EPEAT system, which encourages the purchase of green PCs and is used chiefly by US government bodies. In Japan, product environmental information for computers, magnetic disk devices, displays, printers, scanners, and mobile phones covered by national green purchasing laws is published on the Ministry of the Environment's website, 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.

- EPEAT website: Information from the electronic products environmental assessment tool by the US Institute of Electrical and Electronics Engineers (IEEE)
- Ministry of the Environment's website: Information on products covered by Japan's green purchasing laws
- Energy Conservation Center, Japan website: Information on products conforming with the international ENERGY STAR Program
- List of PC Green Label System-compliant products: Information about Fujitsu Products in compliance with the PC Green Label System formulated by Japan's PC3R Promotion Association
- List of registered EcoLeaf label products: A list of Fujitsu products that have obtained the "EcoLeaf" label developed by the Japan Environmental Management Association for Industry The EcoLeaf environmental label is granted to products that quantitatively demonstrate outstanding environmental performance in carbon emissions and throughout the entire product lifecycle, from resource extraction, manufacture, distribution and usage, to disposal and recycling.
- List of products with Eco Mark certification: A list of Fujitsu products that are certified with the Eco Mark distinction developed by the Japan Environment Association

Environmental Labeling

The Fujitsu Group displays environmental labels in accordance with the ISO 14020 series of international standards governing environmental labeling. The three types of environmental labels are highlighted below.

Type I : Label usage is approved following independent certification of the environmental qualities of a product submitted for review by a company or group.

Eco Mark (Certified by the Japan Environment Association) In January 2001, Fujitsu desktop PCs became the first in Japan to receive certification. Certification has been obtained for printers. - Japan Environment Association Eco Mark	

Type II : A company or organization independently publicizes the environmental qualities of its products.

Green Policy Innovation Logo This environmental label is unique to the Fujitsu Group, and is displayed on Green and Super Green products, where special consideration has been given to environmental performance. - Green Policy Innovation Logo	
Energy Efficiency Labeling System This label is displayed on products meeting standards prescribed by Japan's Act on the Rational Use of Energy. - Energy Efficiency Labeling System	

PC Green Label System For PCs, Fujitsu displays this mark on products meeting standards stipulated by the PC3R Promotion Association. - PC3R Promotion Association	
Energy Star program The international Energy Star Program label is displayed on computers (PCs, workstations), displays, printers, and scanners registered with the program. - International Energy Star Program	

Type III : Products that quantitatively demonstrate the environmental burden posed over the entire lifecycle.

EcoLeaf Environmental Label (Japan Environmental Management Association for Industry) In May 2003, Fujitsu notebook PCs were the first in Japan to be certified under this label. - Japan Environmental Management Association EcoLeaf Environmental Label	

Solutions that Benefit the Environment

By stepping up the certification of Environmentally Conscious Solutions, we are working globally to provide solutions that reduce the environmental burdens of our customers and society.

Basic Approach

To reduce the amount of greenhouse gas emissions on a global scale, efforts will be needed not only to reduce power consumption and to develop environmental technologies, but to profoundly alter the way people live and work. ICT is indispensable to achieving these innovations, and it will be critically important to take full advantage of such ICT in the future.

The Fujitsu Group sees ICT as the way to reduce environmental burdens (which we call "Green by ICT"). From this viewpoint, we are globally promoting the provision of leading-edge Green ICT to achieve the CO_2 reduction targets in our Green ICT project, called Green Policy Innovation and will contribute to reducing the environmental burden of society as a whole.

Action Policy in FY 2011

Promoting Electricity Conservation and Energy Savings in Addition to CO2 Emissions Reductions

We believe that we must actively promote the reduction of environmental burdens by using ICT to achieve the CO_2 reduction targets in our Green Policy Innovation initiative. In FY 2011, customer needs related to electricity conservation and energy savings mounted in the aftermath of the Great East Japan Earthquake. In response, Fujitsu launched a campaign to help customers reduce environmental impact by offering proposals for the use of ICT to conserve electricity and energy, in addition to reducing CO_2 emissions.

Efforts in FY 2011

Increasing the Certification of Environmentally Conscious Solutions

Employing ICT solutions increases power consumption due to more servers and computers being used, but such solutions can also reduce the impact on the environment by eliminating paper use and reducing the movement of people and goods for more efficient use of office and warehouse space.

At the Fujitsu Group, we have assessed the quantitative reduction in environmental burdens (in terms of reduced CO_2 emissions) from ICT adoption using an environmental impact assessment method developed by Fujitsu Laboratories Ltd., and we certify products and services that exceed the required standard as Environmentally Conscious Solutions.
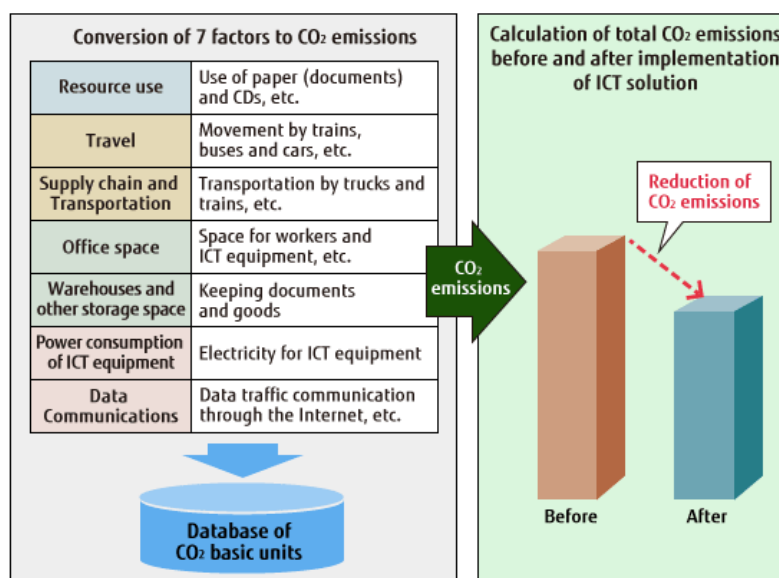
In FY 2011, we enhanced support for the Environmentally Conscious Solution application process, which resulted in 28 new solutions being certified, bringing the total to 258. In FY 2012, we intend to continue expanding the scope of certified products and services and will consider program revisions, such as establishing standards from perspectives other than just CO_2 emissions reduction.

Environmental Impact Assessment Method

We analyze environmental impact reductions produced by ICT solutions by classifying the implementation effects into seven categories: resource use, travel, supply chain and transportation, office space, warehouse space and other storage space, power consumption of ICT equipment and data communications. The benefits are converted into CO_2 emissions using CO_2 basic units (CO_2 conversion coefficient) developed by Fujitsu. CO_2 emissions from before and after ICT solution implementation are calculated and compared, and reduction effects are evaluated accordingly.

This approach accords with assessment guidelines published by Japan's Ministry of Economy, Trade and Industry and Ministry of Internal Affairs and Communications, and with methods (L.1410) recommended in March 2012 by the International Telecommunication Union (ITU).

Overview of Environmental Evaluation Method

Conversion of 7 factors to CO_2 emissions	
Resource use	Use of paper (documents) and CDs, etc.
Travel	Movement by trains, buses and cars, etc.
Supply chain and Transportation	Transportation by trucks and trains, etc.
Office space	Space for workers and ICT equipment, etc.
Warehouses and other storage space	Keeping documents and goods
Power consumption of ICT equipment	Electricity for ICT equipment
Data Communications	Data traffic communication through the Internet, etc.

Database of CO_2 basic units

Calculation of total CO_2 emissions before and after implementation of ICT solution

CO_2 emissions

Reduction of CO_2 emissions

Before   After

- International Standardization of Methodology for Environmental Impact Assessment of ICT Goods, Networks and Services [Press Release]

Global Efforts

In order to globally promote solutions that contribute to reducing environmental burdens, in FY 2010 we launched the Environmentally Conscious Solutions certification system overseas as well. We have since completed informing overseas representatives about the assessment method and construction of the certification system itself. A remote medical system in Laos and other technologies have already been assessed under the system. Going forward, we intend to increase the number of solutions assessed and certified, and will strive for 100% coverage by the end of FY 2012 for targets under the Fujitsu Group Environmental Protection Program (Stage VI), in terms of both divisions and regions, in addition to domestic sites.

Promoting Visualization of Environmental Burden Reduction Effects from Customer ICT Utilization

In order to promote environmental impact reductions from ICT utilization, it is important that customers using ICT solutions understand how and how much they contribute to the environment. From this perspective, the Fujitsu Group makes it possible to see how ICT solutions reduce environmental impact and actively proposes this type of visibility to customers. In FY 2011, we worked to increase use of EcoCALC, a web tool for calculating environmental contributions, with a view to increasing solutions that make reduction benefits visible.

To help encourage use of the tool, we held over 40 operational presentations for sales reps and system engineers at nationwide sales branches beginning from October 2010. Over 1,500 people participated. Incorporating feedback from training participants, EcoCALC was fully updated in January 2012. The tool's specifications have been changed so that it can calculate not only CO2 emissions reductions but also energy savings and cost reductions, areas of considerable customer need.

EcoCALC updated in January 2012

Among activities to promote use, points are granted based on the number of proposals offered for making the benefits of environmental burden reduction more visible. Organizations acquiring the most points are recognized at company-wide events. As part of the Green IT Awards 2011 granted by Japan's Green IT Promotion Council in October 2011, Fujitsu received the Review Board Special Award for the development of its EcoCALC eco-contribution calculation web tool and company-wide activities aimed at achieving a more energy-efficient society.

Green IT Awards 2011 Logo

Awards ceremony

In January 2012, the scope of EcoCALC usage was expanded from the Fujitsu Group to business partners, making it possible for even more customers to visually confirm environmental burden reductions.

Going forward, we will promote horizontal dissemination of environmental solution examples and work to institute visibility for environmental burden reduction benefits in all Fujitsu solutions. We will also work to develop EcoCALC globally and make it possible for even more customers to visually track the effectiveness of their efforts to reduce environmental impact.

Case Study

Adoption of Virtualization Technology for More Efficient Operations and Reductions in Energy Consumption and CO2

Fujitsu and the National Hospital Organization Kure Medical Center have collaborated to completely upgrade the latter's medical information system to a highly secure, user-friendly thin client system using virtualization technology.

Medical record screen and web browser simultaneously displayed

With Kure Medical Center's previous medical information system, the hospital's electronic medical records (EMR) system and information system used to access the Internet (for a web browser, e-mail, and databases used in diagnosis and treatment) were each separately managed using independent networks for security reasons. The two systems could only be accessed using separate terminal, which caused operational efficiency to become an issue despite the vital importance of swift responsiveness in a medical setting. Moreover, in managing information for any of the medical departments, including the surgery department, data entered into the EMR system would need to be re-entered into the surgery department's administrative system, making administration duplicative and cumbersome. Consequently, in addition to workflow efficiency, preventing human error also emerged as an issue.

To meet these challenges, the partners set out to create a system design built on the installation of two virtualization servers-one for the EMR system, another for the information system-that enables screens from both servers to be simultaneously viewed from a single terminal. Now, through the use of a thin client system and a smart card-based single sign-on, Fujitsu and Kure Medical Center have built a secure, user-friendly medical information system. The new system enables users to securely access the Internet while simultaneously using the EMR system. The new system also has a built-in roaming function, allowing hospital personnel to call up their own files from any terminal in the hospital, thereby improving workflow efficiency.

Moreover, adoption of this system is also helping to mitigate environmental impact. Server consolidation through virtualization technology enables CO2 emissions to be reduced by 60% and, with the use of thin clients, CO2 emissions from terminals to be cut by 70%. The system has the potential to cut emissions by roughly 80%, resulting in a total projected reduction benefit of around 150 tons of CO2.

This example is just one way in which Fujitsu is leveraging ICT to support its customers' operations and help reduce their environmental burden.

Internal Initiative Example: Saving Energy and Reducing CO2 by Replacing Hardware Products

Fujitsu's Social Infrastructure Business Unit II made proposals for saving energy and reducing CO2 by replacing hardware products in order to help customers reduce their environmental impact.
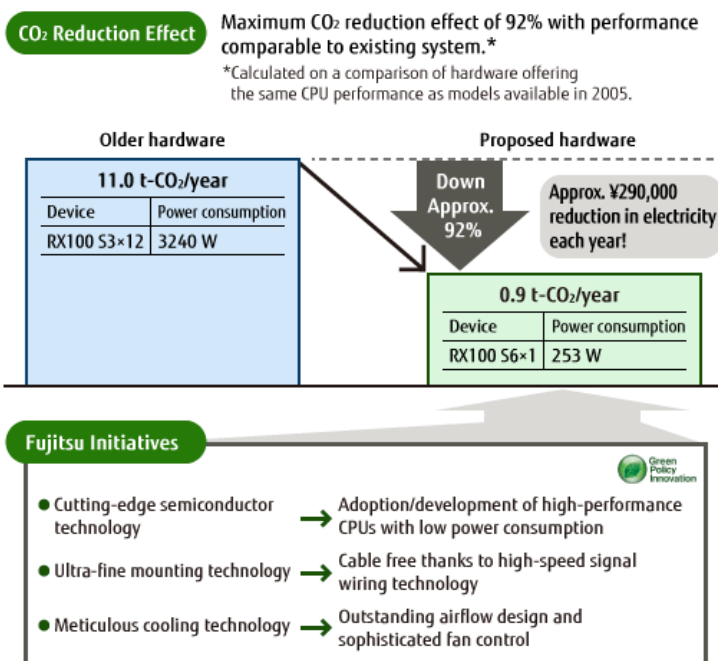
We first investigated the extent of reductions in power consumption and CO2 emissions that would occur by replacing the old Fujitsu devices with new Fujitsu models. The results were compiled into a customer proposal format, which made the solution easy to propose for the division's employees. We also calculated reductions in power consumption and CO2 emissions that would occur if the customer's entire system, including competitor devices, were replaced with the latest Fujitsu products, and conveyed the benefits of such upgrades. Moreover, we tabulated on a department by department basis the number of proposals clearly stating power and CO2 reductions or reduction rates resulting from ICT implementation. These figures served to stimulate awareness in the division with regard to increasing such proposals and helped revitalize the proposal process.

As a result of this initiative, the number of proposals promoting power and CO2 reduction benefits increased by roughly 120 times compared to FY 2010. We also successfully encouraged customers to reduce environmental impact through hardware upgrades.

This series of activities received the Special Environmental Award in FY 2011 at the Environmental Contribution Awards, an internal awards program. Division employees commented that the appeal of their proposals was enhanced by showing customers specific figures for energy savings, and that they learned how to engage in environmental activities while performing sales activities.

We intend to continue this initiative and further help customers reduce their environmental impact.

Example of a Proposal Utilized in In-house

CO2 Reduction Effect — Maximum CO2 reduction effect of 92% with performance comparable to existing system.*
*Calculated on a comparison of hardware offering the same CPU performance as models available in 2005.

Older hardware

11.0 t-CO_2/year

Device	Power consumption
RX100 S3×12	3240 W

Down Approx. 92%

Proposed hardware

Approx. ¥290,000 reduction in electricity each year!

0.9 t-CO_2/year

Device	Power consumption
RX100 S6×1	253 W

Fujitsu Initiatives

Green Policy Innovation

- Cutting-edge semiconductor technology → Adoption/development of high-performance CPUs with low power consumption
- Ultra-fine mounting technology → Cable free thanks to high-speed signal wiring technology
- Meticulous cooling technology → Outstanding airflow design and sophisticated fan control

- Solutions that Benefit the Environment : Case Study Archives

Providing Environmental Solutions

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

Basic Stance

In the context of increasingly severe environmental problems, our customers must promote environmental management that aims at achieving business growth and reductions in environmental burdens. Both are essential if they are to conduct sustainable business.

We at Fujitsu provide environmental solutions to support our customers' environmental management. We evaluate their environmental activities and "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 to 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.

In FY 2012, we began providing customers with the Environmental Management Dashboard, which realized peak power cuts of up to 41% for the Fujitsu Group in Japan in the summer of 2011. In addition to achieving peak power reduction targets, the Environmental Management Dashboard can also be regarded as a new management indicator for energy costs, and continues to assist customers in meeting their cost reduction targets.

- Environmental Management Dashboard
- Providing Environmental Solutions : Case Study Archives

Geothermal Heat Extraction System

The Fujitsu Group is actively working to promote the use of renewable energies to help prevent global warming and ensure stable energy supplies.

Use of Geothermal Heat Gaining Attention as a New Renewable Energy Source

Renewable energy has been garnering increasing attention not only for reducing CO2 emissions but also for lessening energy supply-related risks. The Fujitsu Group, too, is promoting the use of renewable energy as a key objective of its Environmental Protection Program (Stage VI). As part of its commitment, the Group has deployed and is evaluating the performance of its first geothermal heat extraction system at the Nagano Plant in Japan.

In contrast to high-temperature geothermal heat used to generate electricity, the geothermal heat utilized by the new system is low-temperature heat found at relatively shallow depths in the Earth's crust, which stays at a fairly constant temperature year round due to the insulating properties of soil.

For this reason, it has long been used to preserve food, ice and other perishable items. In Japan, where annual precipitation is high, rainwater permeates the soil to become groundwater, which is stored in ample amounts. The thermal conductivity of groundwater is high, so it is easy to extract geothermal heat from it, meaning Japan enjoys favorable conditions for this form of energy. Heat extraction systems are relatively simple, so their cost performance is superior to other types of renewable energy. Geothermal systems therefore have great potential for more widespread use in the future.

At the Nagano Plant, attention turned to the potential use of this geothermal heat in water heater equipment for air conditioners in clean rooms that run around the clock.
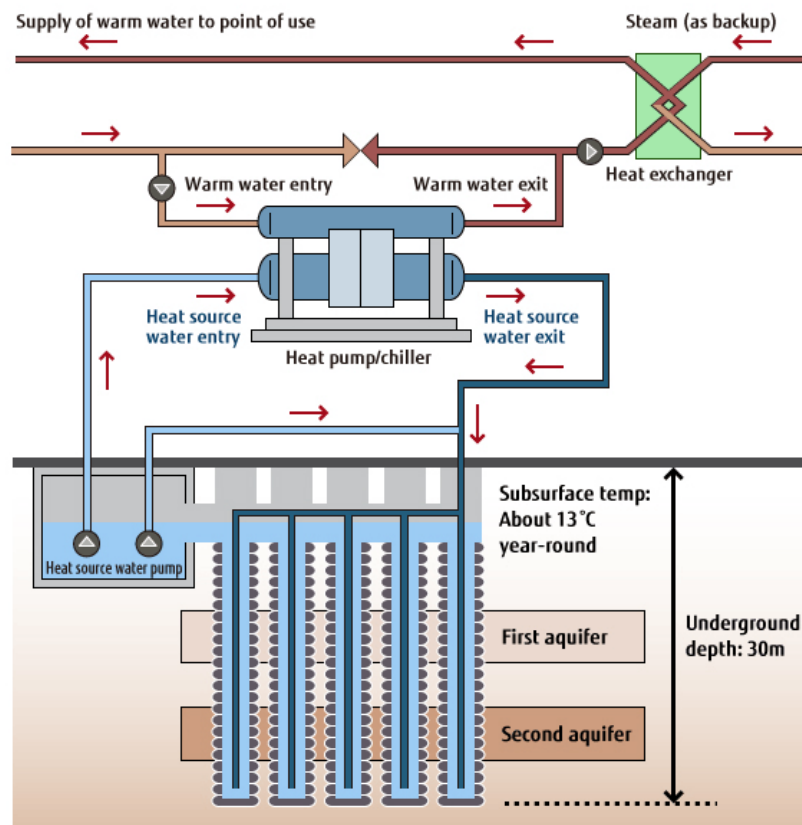
Repeated Testing for Effective Operations

The strata under the Nagano Plant has aquifers in two places, between 3 and 10 meters and between 18 and 23 meters belowground, making it relatively easy to extract geothermal heat. The system utilized has 31 heat extraction pipes, which leverage corrugated coaxial double piping techniques and are embedded in the ground. The geothermal heat that is extracted by running water through these pipes is used to produce hot water via a heat pump. There is no concern about groundwater depletion with this system because it only extracts heat-not water-from the ground.

In October 2011, we began excavation work to bury the heat extraction pipes and began operating the system at the end of January 2012. When the system first went into operation, heat could not be extracted in planned amounts, but after running tests from various angles, the cause was found to be the flow velocity of the circulating water used for heat extraction. A circulation pump was installed, and this resulted in a dramatic improvement in the amount of heat extracted. The system is currently projected to generate roughly 155W of energy per 1 meter-long pipe using this system, which should cover 90% of the air conditioning load of the plant's clean rooms.

Fujitsu Facilities Ltd., which installed and tested the system, intends to acquire and accumulate expertise in geothermal systems and establish technologies for utilizing geothermal heat.

Schematic of the Geothermal Heat Extraction System

Supply of warm water to point of use

Steam (as backup)

Heat exchanger

Warm water entry

Warm water exit

Heat source water entry

Heat source water exit

Heat pump/chiller

Heat source water pump

Subsurface temp: About 13°C year-round

First aquifer

Second aquifer

Underground depth: 30m

Toward Widespread Use of Geothermal Heat

Compared to generating hot water via its existing gas boiler system, test calculations suggest that deploying the geothermal heat extraction system will enable Fujitsu to reduce annual fuel consumption by roughly 47kL and annual CO_2 emissions by roughly 120 tons. Geothermal heat is expected to provide exceptional benefits for heating and cooling at public facilities, hospitals and other buildings and as a source of heat for agricultural greenhouses, which require round-the-clock temperature management.

Moving forward, we will put the system into wider use at the Nagano Plant and explore its horizontal deployment to other Fujitsu Group locations, while actively promoting its adoption in a variety of other settings.

Members of geothermal heat extraction system installation project

VOICE

Project Leader, Facility and Environment Services Division, Fujitsu Facilities Ltd.
Yasushi Yazawa

Geothermal heat offers superior stability and cost performance because it changes little from season to season or day to day. Another advantage is that dead space is not created since geothermal heat extraction pipes are embedded in the ground.

We initially struggled to extract more heat after installing the system, in part because it was our first attempt at using geothermal heat. We will develop the operational know-how to effectively harness geothermal heat, utilizing it when we embark on the horizontal in-house deployment of the system.

Efforts to Prevent Global Warming

We are examining all of our business operations in an effort 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 actions include reducing emissions of CO2 due to energy consumption and other greenhouse gases at our factories and offices, and reducing emissions associated with transportation.

Furthermore, we are working to prevent global warming throughout all areas of business activity by helping to cut greenhouse gas emissions from our customers and society in general by developing Green Products and Super Green Products that contribute to reducing environmental burdens and by providing ICT solutions.
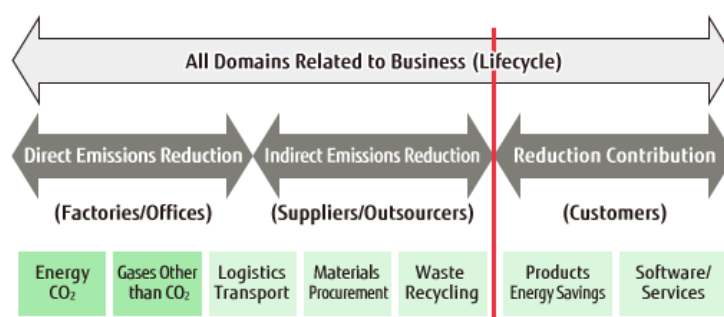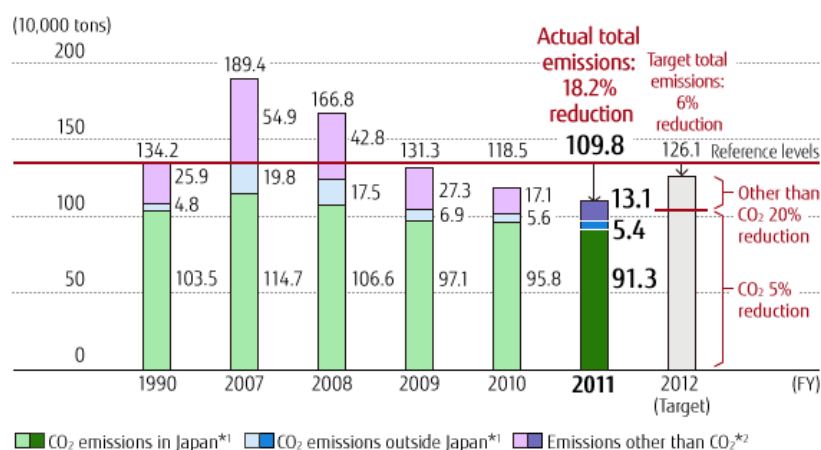

Preventing Global Warming from the Business Site

Greenhouse Gas Emission Reduction Targets and Results

We have set "reducing our total greenhouse gas emissions by 6% by the end of FY 2012 compared with FY 1990 (the breakdown for total emissions is a 5% reduction in CO2 due to energy consumption and a 20% reduction in gases other than CO2)" as a goal of the Fujitsu Group Environmental Protection Program (Stage VI).

Our actual total emissions for FY 2011 globally were about 1.098 million tons (per unit of actual sales: 2.458 tons/billion yen), which is a 7.3% or 87 thousand tons reduction from the previous fiscal year, and an 18.2% reduction from FY 1990.

Trends in Total Greenhouse Gas Emissions

*1 CO₂ emissions in/outside Japan: CO₂ conversion coefficient for purchased electric power has been calculated with a fixed value of 0.407 ton of CO₂ per MWh since FY 2002 for performance reports in our Environmental Protection Program.

*2 Emissions other than CO₂: These are converted to equivalent amounts of CO₂ using the global warming potential (GWP) of each gas. Our FY 1995 performance is taken to be the emissions in FY 1990.

Reduction of CO2 Emissions due to Energy Consumption

CO2 emissions due to energy consumption are responsible for about 88% of the Fujitsu Group's greenhouse gas emissions. Therefore, we continuously work to improve the following energy-saving measures to reduce CO2 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 via measurement of energy consumption visualization and proactive use of that data
- Use of renewable energy such as solar power

Further, we set up Low Carbon Committee 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 CO2 emissions for FY 2011 were about 967 thousand tons (913 thousand tons in Japan, 54 thousand tons outside Japan), which corresponds to a 46 thousand ton reduction from the previous fiscal year and a 10.7% reduction from FY 1990.

Case Study

Reducing Air Conditioning Load with Total Heat Exchangers for Clean Room Air

Fujitsu Facilities Ltd. renovated its Building No. 7 in conjunction with relocation of the Nagano Plant of Fujitsu Advanced Technologies Ltd. The renovation included installing total heat exchangers for processing clean room outside air. The project was started immediately after the Great East Japan Earthquake of March 2011, and the system was built with power shortages taken into account from the implementation design stage. The system reduces the air conditioning load. In addition, the total heat exchangers are equipped with humidification functionality for stability from a humidity control standpoint as well.

As a result of this initiative, power use was reduced by 17,000 kWh during the summer (from June to September) and steam was reduced by 55 tons in the winter (December to March) and in the interim periods (April, May, October, and November). This translates to an annual reduction in CO2 emissions of 16 tons.

- Reducing Greenhouse Gas Emissions Associated with Manufacturing : Case Study Archives

Reducing Emissions of Greenhouse Gases Other than CO2

Other than CO2, the Fujitsu Group mainly uses perfluorocarbon (PFC), hydrofluorocarbon (HFC) and sulfur hexafluoride (SF6) in its semiconductor divisions. Following the semiconductor industry's action plan[*1], we have set a target of a 20% reduction by the end of FY 2012 for the Fujitsu Group Environmental Protection Program (Stage VI). To this end, we have changed to gases with a lower global warming potential (GWP) and continue to install equipment to remove harmful materials in new and existing fabrication lines.

In FY 2011, we reduced the amount of these emissions measured in GWP equivalent by 41 thousand tons, to about 131 thousand tons. This corresponds to a 49.6% reduction compared to FY 1995.

*1 Semiconductor industry's action plan :
Semiconductor industry target (voluntary action plan) of "reducing emissions by 10% relative to FY 1995 levels by the end of FY 2010."

Promoting the Use of Renewable Energy

Although we have adopted renewable energy sources such as solar power generation at 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 ten times as much capacity by the end of FY 2012 as we had in FY 2007.

In FY 2011, we installed 343 kW of solar generating capacity at four business sites in total, including 200 kW at the Sekijyo Plant of Fujitsu Telecom Networks Limited, and 50 kW at Fujitsu I-Network Systems Limited. This resulted in a total installed capacity of solar generating equipment of 608 kW at the end of FY 2011, which is 11 times that of FY 2007.

Solar power generating equipment was initially installed at the Sekijyo Plant to cope with electric power usage restrictions mandated by the Japanese government in the summer of 2011. The plant achieved a reduction in peak hour electricity demand of 33%, exceeding the mandated reduction target of 15%.

Solar panels at the Sekijyo Plant of Fujitsu Telecom Networks Limited

Cumulative Total Installed Solar Power Generation (renewable energy*)

(Rated capacity, kW)
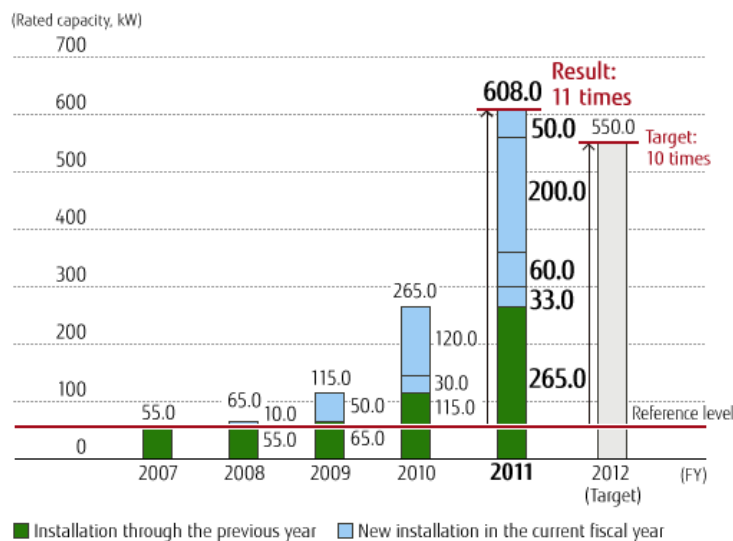
■ Installation through the previous year   □ New installation in the current fiscal year
*Renewable energy utilization ratio: Calculated based on the rated capacity of
 solar power generation equipment installed at Fujitsu business sites.

Responding to the Japanese Revised Energy Conservation Law

As a result of the revisions to and enforcement of the Japanese Energy Conservation Law[*2], 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 across Japan, including for the office space we rent, and manages the amount used by each Group company. 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.

The amount of energy used by the Group within Japan under the Energy Conservation Law in FY 2011 was 588 thousand kl (crude oil equivalent), corresponding to CO_2 emissions of about 1.026 million tons[*3] based on the Act on Promotion of Global Warming Countermeasures[*4], which was also revised.

*2 Energy Conservation Law :
Act on the Rational Use of Energy.

*3 about 1.026 million tons :
There are differences in ranges for tabulation that include tenants and calculations based on CO_2 conversion coefficients for each electric power company for results reporting under our Environmental Protection Program.

*4 Act on Promotion of Global Warming Countermeasures :
A system for calculating, reporting, and disclosing the amount of greenhouse gas emissions stipulated by Japan's Act on 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 2011, we were validated by an external institution in line with the pilot project[*5]. Our emissions level for FY 2010 was verified, and we achieved our targets for the FY 2008 to FY 2010 period.

*5 External institution in line with the pilot project :
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.

Reducing Greenhouse Gas Emissions Throughout the Supply Chain

There have been increasing discussions s in recent years about how to calculate and report greenhouse gas emissions generated from a company and its supply chain. The ICT sector in particular reportedly has a major contribution to make in reducing emissions in other sectors[*6]. For this reason, the Fujitsu Group is placing emphasis on calculating and reporting greenhouse gas emissions for the entire supply chain, including contributions, and is actively conducting related initiatives worldwide.

Since FY 2003 we have published figures for greenhouse gas emissions from corporate activities through the Carbon Disclosure Project (CDP)[*7], and are actively involved in greenhouse gas emission calculations, including supply chain emissions. In addition, we are also taking part in drafting the ICT sector guidelines[*8] for the GHG Protocol, an international set of guidelines for calculating and reporting greenhouse gas emissions. In FY 2010 we took part in the product systems subcommittee of the Ministry of the Environment's investigative commission on methods for calculating greenhouse gas emissions in the supply chain. So-called 'Scope 3' calculations were conducted and issues identified. Based on these findings, in FY 2011 the Ministry of Economy, Trade and Industry and the Ministry of the Environment jointly sponsored an investigatory commission on calculating organizational greenhouse gas emissions through the supply chain. The electrical and electronics industry's basic approach was clarified regarding the fact that industry characteristics must be considered, specifically the many formats for Scope 3 calculations and reporting and the complexity and length of supply chains that often include overseas suppliers.

Against this backdrop, in FY 2012 Fujitsu will launch an in-house working group to closely consider the possibilities and issues inherent in Scope 3. We will be considering how to incorporate a Scope 3 perspective into contributions to environmental impact reductions for society as a whole.

*6 :
"2010 WHITE PAPER Information and Communications in Japan" from the Ministry of Internal Affairs and Communications (Japanese only)

*7 Carbon Disclosure Project (CDP) :
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.

*8 ICT sector guidelines :
Greenhouse Gas Protocol ICT Sector Guidance

Case Study

Participation in Great Taipei World Car Free Day

Fujitsu Taiwan, which is involved in the ICT business, participated in the 2011 Great Taipei World Car Free Day held in the Taiwanese capital of Taipei in September 2011. The event is held every year to promote environmentally friendly transit options. Special lanes are established for pedestrians and bicyclists, and Taipei residents are called on to use modes of transport with low CO2 emissions and public transportation.

Fujitsu Taiwan encouraged all its employees to commute to work in environmentally friendly ways to help reduce Taipei's CO2 emissions. As a partner in the campaign to save polar bear habitats, the company ran enlightenment activities on the importance of biodiversity as well as other proactive initiatives as an official sponsor, ultimately receiving the Taipei Mayor's Award for its efforts.

Fujitsu Group's Power-Saving Initiatives

All of our business locations in Japan are involved in electricity conservation using Environmental Management Dashboards.

Achieved over 20% energy savings during summer 2011 at Fujitsu locations serviced by Tokyo Electric Power Company and Tohoku Electric Power

In response to the Great East Japan Earthquake that struck in March 2011, the Japanese government asked large electric power users to reduce their peak electric power use from July 1 to September 9, 2011 by 15% from the level in the previous year. The Fujitsu Group set up a power conservation committee with the Company president as chairman. Following an examination of conservation targets and countermeasures, the Group then introduced power-saving initiatives to achieve an even higher reduction of 20% for business sites and factories within regions served by the Tokyo Electric Power Company, Incorporated (TEPCO) and Tohoku Electric Power Co., Inc. In addition, Fujitsu offices and factories served by The Kansai Electric Power Co., Inc. (KEPCO) reduced power consumption by over 10%, as directed by the government. Bases located in other utility service areas have also decided on initiatives to curb their electricity usage.

Measures to Conserve Electricity Using Environmental Management Dashboards

In implementing measures to conserve electricity in the wake of the Great East Japan Earthquake, the Fujitsu Group's responsibility was to determine how it could save electricity with minimal effects on business. Essentially, the Group was asked to continue to provide its customers with products and services without delay, while working to achieve its goal of using less electric power. Visualizing the state of electric power usage in real time was critical to meeting these challenges. But success also required mounting a response based on a Joint Utilization Control Scheme*1 for cutting peak usage by treating multiple factories as a single unit. This prompted the Fujitsu Group to develop and incorporate the Environmental Management Dashboard in its measures to conserve electricity.

A screen displaying power usage

The Environmental Management Dashboard displays on a user-friendly portal screen the state of electric power use every hour at each business facility, discrepancies from target values, comparisons with power use the previous year, and predictions of demand for each day based on production plans. For factories under the Joint Utilization Control Scheme, when it appears that the electric power consumption target value is about to be exceeded as a result of the air temperature or state of operation of production lines, factories under the scheme must take immediate action to mutually adjust their electric power consumption. Real-time monitoring then takes place via the Environmental Management Dashboard.

By rigorously monitoring electricity savings and formulating and executing related measures in this way, we were able to reduce electricity consumption beyond our target of 20% within the TEPCO and Tohoku Electric service areas. We not only cut peak power use but also generated considerable cost savings from reductions to total power consumption.

*1 Joint Utilization Control Scheme:
Under electric power consumption caps set by Article 27 of the Electricity Business Act, multiple business facilities of a large electric power user jointly control the maximum electric power used. It is an initiative which has been confirmed to cut maximum electric power use by a group of business facilities. For example, when business facility A discovers that its power cap is about to be exceeded, business facility B cuts down energy use by an equivalent amount.

Main Power Saving Initiatives of the Fujitsu Group

From July to September 2011, power conservation measures were implemented at Fujitsu Group locations in Japan, led by large-scale sites, as well as Fujitsu plants and tenant office buildings nationwide.

1. Approximately 4,100 of the roughly 10,000 servers used for Fujitsu's development and business operations were either relocated to datacenters outside the regions serviced by TEPCO and Tohoku Electric, or had usage temporarily suspended.

2. Fujitsu reduced the number of production facilities and shifted operations of some manufacturing processes to nighttime.

3. At its buildings and offices based in commercial buildings that it occupies as a tenant, Fujitsu curtailed the use of elevators and lighting, adjusted the temperature of air conditioners, and suspended the use of water heaters and refrigerators.

The Fujitsu Group had succeeded in reducing year-on-year power consumption by between 20% to 41% at offices and factories (excluding exempted sites) located in areas serviced by TEPCO and Tohoku Electric. In addition, Fujitsu offices and factories served by KEPCO reduced power consumption by over 10%.

**All Fujitsu's 100 thousand PCs set to power-saving mode**

As a measure to save energy in summer of 2011, all PCs used by the Fujitsu Group in Japan were set to power-saving mode. First, Systemwalker Desktop Patrol, a client management software tool, was used to collectively verify the settings of all of the roughly 100 thousand PCs targeted. Steps were then taken for non-compliant PCs to promote a settings change. Applying power-saving mode to all PCs is estimated to cut power consumption by around 11,000 kwh per day across the Fujitsu Group.

About Systemwalker Desktop Patrol

Systemwalker Desktop Patrol is a client management product for conducting centralized management of ICT assets such as PCs, printers and software licenses, as well as automatic security patch application/audits and other operations. In August 2009, amid recent growth in environmental consciousness in Japan and revisions to the country's Act on the Rational Use of Energy, Fujitsu unveiled Systemwalker Desktop Patrol V14g. In addition to conventional client management features, this latest version has new functions for visualizing power usage, carbon emissions and operating status designed to reduce wasteful PC power consumption.

Systemwalker Desktop Patrol V14g makes it possible to automatically retrieve PC power-saving settings, verify if these conform to the power conservation policy set by the system administrator or organization, and prompt the user to change the settings if needed. Settings can also be set automatically to comply with the policy.
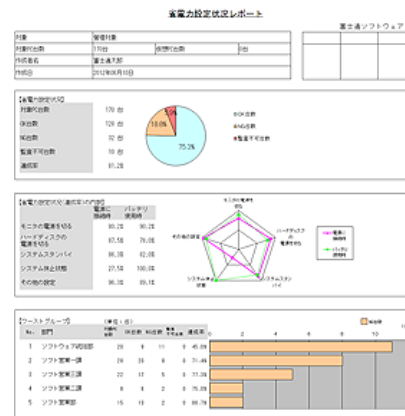
Example of results report on power-saving settings audit

- Systemwalker Desktop Patrol V14g

Reducing Electricity Consumption by 10% in KEPCO Service Area in Winter 2011

During the winter of FY 2011 as well, major power consumers in the Fujitsu Group and our business locations carried out electricity conservation activities based on a request received from the government. The goal was to reduce power consumption year on year during the four-month period between December 1, 2011 and March 31, 2012; specifically, a 10% reduction in peak power use in the KEPCO service area, and 5% in other service areas.

As a result, in the KEPCO service area, we reduced peak power consumption by at least 10% over the entire four-month period from December to March, successfully achieving our target. In addition, the Fujitsu Group as a whole achieved its target by reducing peak power consumption by at least 5%.

Future Activities to Save Electricity

Even during periods in which the government does not request reductions, the Fujitsu Group will utilize Environmental Management Dashboards and engage in established electricity conservation efforts at domestic business locations and factories within a scope that does not affect business activities. We will conduct electricity conservation activities in accordance with government requests during the summer of 2012 as well.

Going forward, we intend to help customers reduce and level power consumption, using this initiative as an environmental reference model.

Environmental Activities in Factories

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 Fujitsu 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.
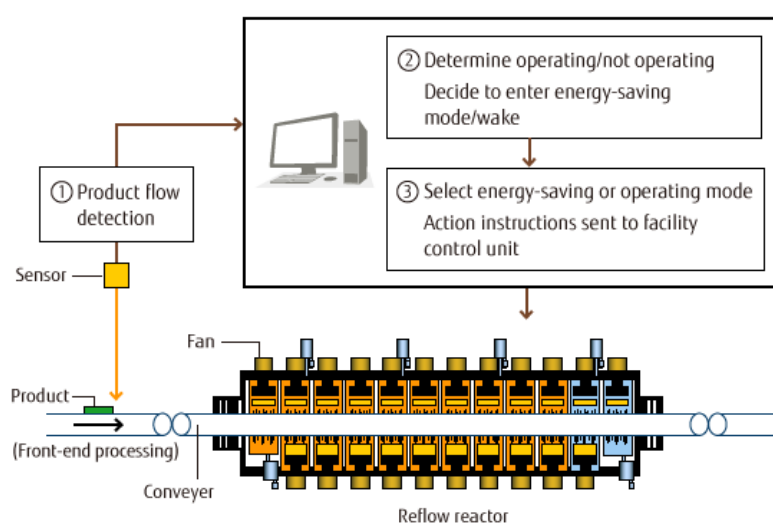
Development of Green Production Technology

Assembly, processing and other production-related processes and equipment account for roughly 40% of overall CO_2 emissions at Fujitsu factories. In a move to cut energy consumption associated with production, we are working to visualize power usage particularly around surface mount technology (SMT), assembly and testing processes. Improvements are then implemented beginning with processes and facilities where the most efficient reductions in power consumption are possible.

Case Study

Reducing Standby Power by Operating Reflow Soldering Furnace on a Just-in-Time Basis

In reflow furnaces, power is always supplied to the heater even if no products are being processed. As a result, the heater used for soldering accounts for the bulk of the power consumed by this equipment. To reduce the use of standby power while this equipment is idle, we moved to develop a "just-in-time" (JIT) scheme for reflow furnaces that supplies the required amount of energy as needed. Information from products input for front-end processing, derived from sensors that detect when products pass by, determines whether the system should be active or idle. Standby power usage is reduced by putting the system into optimal energy-saving mode, which minimizes the hot-air fan speed, slows down the conveyer and turns system power off. This JIT scheme is currently applied to one reflow furnace at the Oyama Plant of Fujitsu Telecom Networks Limited, where it has reduced energy consumption for this equipment by 13%. This translates into an annual savings of roughly 150,000yen in energy costs and a reduction in CO_2 emissions of around 4 tons. Plans call for extending this scheme to reflow furnaces at all Fujitsu sites, a move that is projected to cut annual energy costs by 12,000,000yen and CO_2 emissions by 320 tons.

Overview of "Just-in-Time" Conversion of a Reflow Soldering Furnace

② Determine operating/not operating
Decide to enter energy-saving mode/wake

① Product flow detection

③ Select energy-saving or operating mode
Action instructions sent to facility control unit

Sensor

Fan

Product

(Front-end processing)

Conveyer

Reflow reactor

Reducing Compressor Power Consumption by Cutting Air Use at Product Warehouses

Fujitsu has moved to reduce wasteful use of air at production-related facilities, specifically product warehouses. This initiative is designed to reduce energy consumption from compressors by lowering the use of compressed air at factories. Previously, to prevent moisture levels inside desiccators (industrial dryers) from rising, a fixed and often excess supply of air was piped in irrespective of moisture levels within the warehouse. With the installation of sensors to detect moisture, we are striving for more optimized air usage by automatically controlling the volume of air supplied. To prevent moist outside air from getting in and to reduce air leaks, we apply draft-sealing tape to entryways and take other steps to keep facilities airtight. These measures have reduced air usage by roughly 50% compared to pre-improvement levels.

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

In the Green Process activities at semiconductor fabrication factories, 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 approach in those activities as well.

Cost Green (CG) Index

We employ an originally developed "Cost Green (CG) Index" that can identify materials for which targeted measures would be most effective in terms of both cost and environmental burden. The index is calculated by multiplying three numerical values for each material, including chemicals and gases-the unit price, volume used per product unit, and degree of environmental impact determined in-house. The number derived then forms the basis for reduction activities.

Method for Calculating Cost Green (CG) Value

This index describes the product of input volume used per product, the cost, and the environmental impact[*1]

*1 Environmental impact :
Measured on a scale of 1 to 10, with higher scores denoting worse environmental performance

- **Reduced Environmental Impact from Factory Inputs**
  Reducing inputs such as raw materials, chemical substances and energy in upstream manufacturing activities makes it possible to reduce waste, chemical substances and energy consumption efficiently, and to thereby further reduce a manufacturing site's environmental impact.

- **Reduced Manufacturing Costs**
  Total inputs, including raw materials, chemical substances and energy, can be tracked and reduced, so operational benefits in the form of reduced manufacturing costs can also be expected.

- **New Assessment Indicators for Manufacturing Processes**
  Cost reductions, quality improvements, and delivery deadline compliance, the main assessment items for manufacturing processes, are joined by a new item, environmental impact reduction, which generates new added value. Activities will be carried out on an ongoing basis, with each factory setting targets and assessing relative achievement every quarter for each manufacturing line.
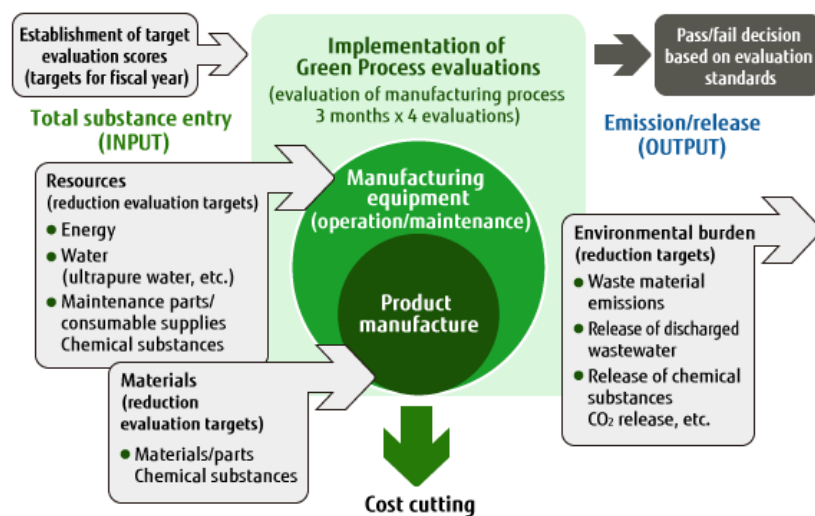
Case Study

Reducing Sealing Plastic with New Molding Technology
Fujitsu Integrated Microtechnology Ltd.

At Fujitsu Integrated Microtechnology, which handles Fujitsu Group semiconductor product packaging and test processes, each division within the factory sets its own targets for the Green Process activities it promotes.
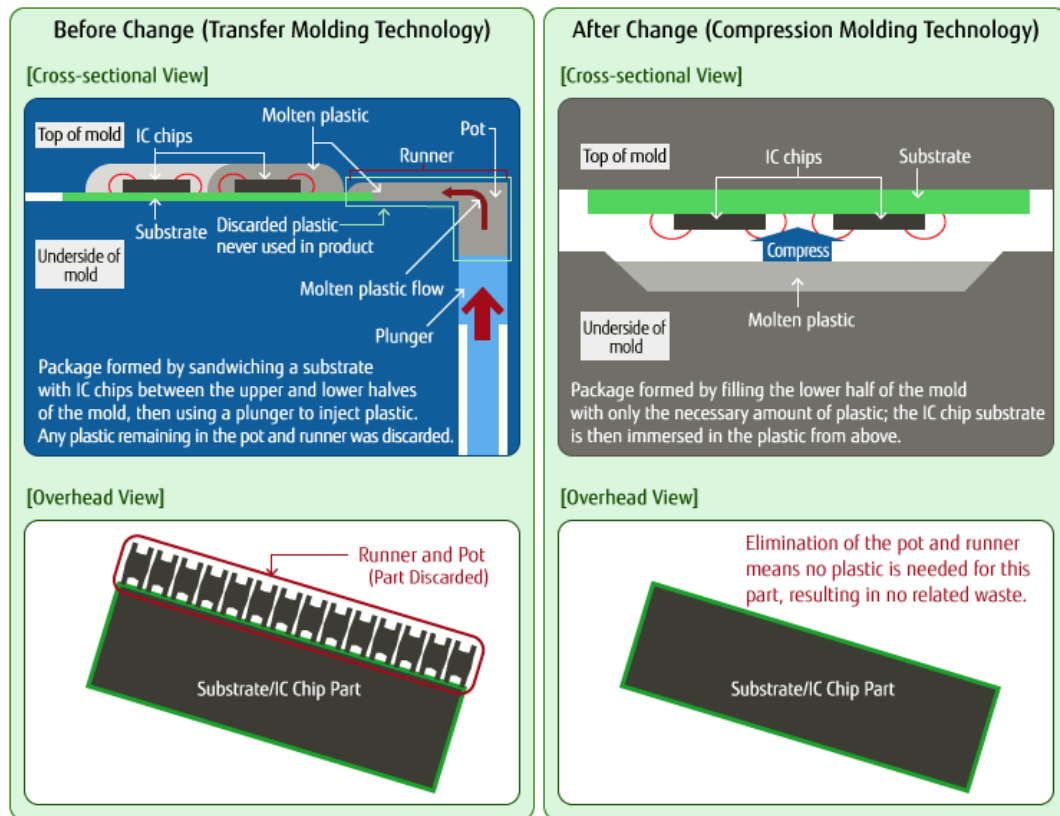
For example, the Miyagi Plant has instituted a new compression molding technology for the molding process in the IC chip packaging process (process for sealing chips with plastic), replacing the transfer molding technology that has been widely used to date. This has eliminated sealing plastic that had gone to waste and has reduced plastic usage and waste volume.

With conventional transfer molding technology, the process involved injecting plastic from a hole called a pot through which a plastic tablet is pressed and through a narrow tube called a runner to the chip. As a result of this process, plastic would remain on the pot and the runner, and this would become waste.

The new compression molding technology inputs only the necessary amount of plastic in a mold on the underside and then submerses the IC chip substrate into the plastic from the top and compresses it to perform the molding process, which renders conventional pots and runners unnecessary. This eliminates the plastic that had remained on those parts and thrown out as waste.

Moreover, switching to the new method has reduced bonding wire deformation, which had occurred when melted plastic was poured through, and has enabled more surface area of the substrate to be sealed at once, improving both quality and efficiency.

Since October, when the new technology was applied, plastic use has declined per unit of production (per component) in processes using the new method compared to before. In particular, since November, production volume has been increased and both CG values and resin costs per component have declined by 25-40% range, close to the rate that was expected (roughly 36%).

Before Change (Transfer Molding Technology)

[Cross-sectional View]

Top of mold | IC chips | Molten plastic | Pot | Runner

Substrate | Discarded plastic never used in product

Underside of mold | Molten plastic flow | Plunger

Package formed by sandwiching a substrate with IC chips between the upper and lower halves of the mold, then using a plunger to inject plastic. Any plastic remaining in the pot and runner was discarded.

[Overhead View]

Runner and Pot (Part Discarded)

Substrate/IC Chip Part

After Change (Compression Molding Technology)

[Cross-sectional View]

Top of mold | IC chips | Substrate

Compress

Underside of mold | Molten plastic

Package formed by filling the lower half of the mold with only the necessary amount of plastic; the IC chip substrate is then immersed in the plastic from above.

[Overhead View]

Elimination of the pot and runner means no plastic is needed for this part, resulting in no related waste.

Substrate/IC Chip Part

- Green Process : Case Study Archives

Reducing the Amount of Waste Generated

Basic Approach

Working towards a recycling-minded society, our 3R*2 policy encourages all employees to separate waste materials into different categories for effective recycling.
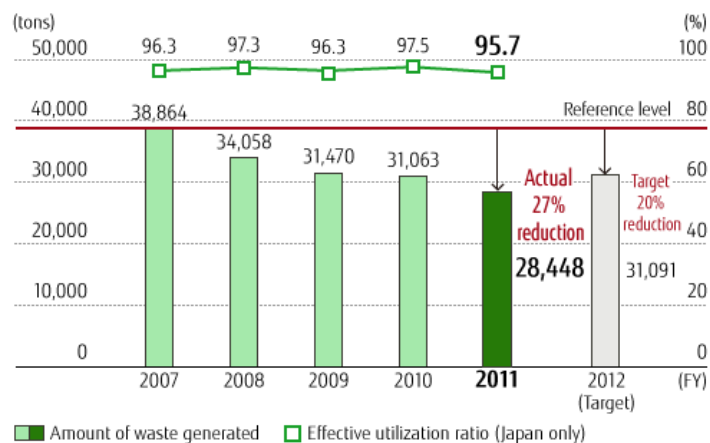
*2 3R :
Reduce, Reuse, and Recycle

FY 2011 Performance

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

We generated 28,448 tons of waste (per unit of actual sales: 0.064 tons/billion yen) in FY 2011, which was an 8.4% reduction from the previous fiscal year's level and a 27.0% reduction from the FY 2007 level. The reasons for these reductions include the conversion of waste paper and waste acid to valuable materials, and in-house processing of alkali wastewater.
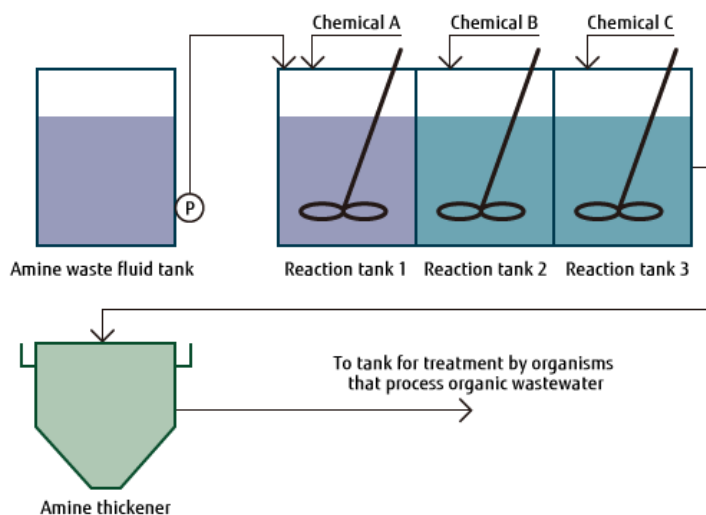
Amount of Waste Generated

	2007	2008	2009	2010	2011	2012 (Target)
Effective utilization ratio (%)	96.3	97.3	96.3	97.5	95.7	
Amount of waste generated (tons)	38,864	34,058	31,470	31,063	28,448 (Actual 27% reduction)	31,091 (Target 20% reduction)

Reference level 80

Legend: ■ Amount of waste generated □ Effective utilization ratio (Japan only)

Case Study

Shinko Electric Industries Co., Ltd.
Internal Processing of Organic Amine Waste Fluids

Shinko Electric Industries Co., Ltd. previously processed all the waste stripping fluid (organic amine alkali chemicals) that was used to strip dry film laminate, which is necessary for patterning (a semiconductor production process), as industrial waste.

After repeated experimentation, the company established an internal processing technology and succeeded in making it possible to process the waste fluid in-house. As a result, industrial waste volume was reduced by 777 tons annually.

Method for Internal Processing of Amine Group Organic Alkali Waste Fluids

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- Reducing the Amount of Waste Generated : Case Study Archives

Achieving Zero Emissions at Domestic Group Companies

The Fujitsu Group promotes zero emissions*3 activities at Group companies in Japan. One business location did not achieve zero emissions status. We will continue considering ways to achieve zero emissions at this location.

*3 Zero emissions :
Refers to effectively using 100% of waste and eliminating waste earmarked for landfills or simple incineration.

## Effective Use of Water Resources

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 2011

Our water use for FY 2011 was 21,797 thousand cubic meters (per unit of actual sales: 49 cubic meters/billion yen). This was 0.8% higher than FY 2010 but 5.7% lower than FY 2009.

The ratio of recycled water to total water use was 26.6% in FY 2011, which was about the same level as the 27.0% ratio in FY 2010.

Trends in Water Use
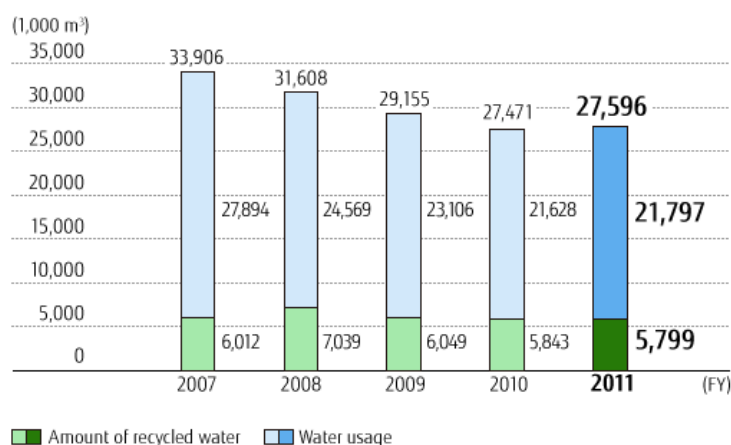
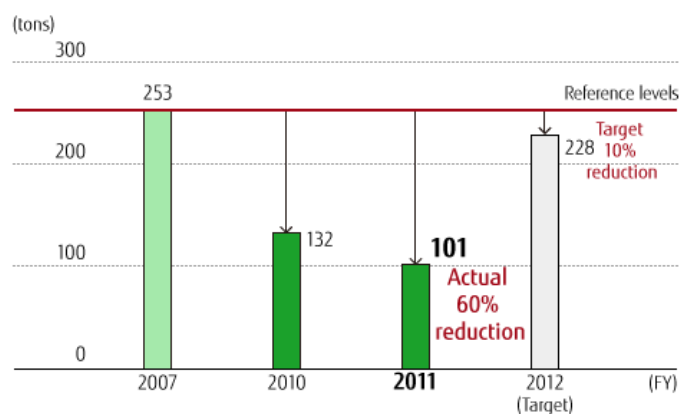
Chemical Substances Management

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 2011

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 2011 were 101 tons, which was a 60% reduction compared to the FY 2007 reference year.

Trends in Emissions of Specific Chemical Substances

(tons)

	2007	2010	2011	2012 (Target)	(FY)
	253	132	**101** Actual 60% reduction	228 Target 10% reduction	

Reference levels: 253

*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.

Compliance with the Revised Chemical Management Law

Following revisions to the Chemical Management Law*4, more chemical substances are now covered by the MSDS*5 system and the PRTR*6 system (revisions applied to the MSDS system from October 2009, and to the PRTR system from April 2010).

Responding to these revisions, the Fujitsu Group has asked its suppliers to cooperate in the delivery of chemicals, and based on the revised PRTR system it is carrying out initiatives to obtain an accurate grasp of the amounts of chemicals transported and emitted. Emissions of chemical substances covered by the PRTR system were 24 tons, and per unit of actual sales were 0.054kg/billion yen).

*4 Chemical Management Law :
A law to promote correct understanding, management, and reporting of amounts of designated chemicals emitted into the environment

*5 MSDS :
A system that requires attachment of a Material Safety Data Sheet to chemical deliveries
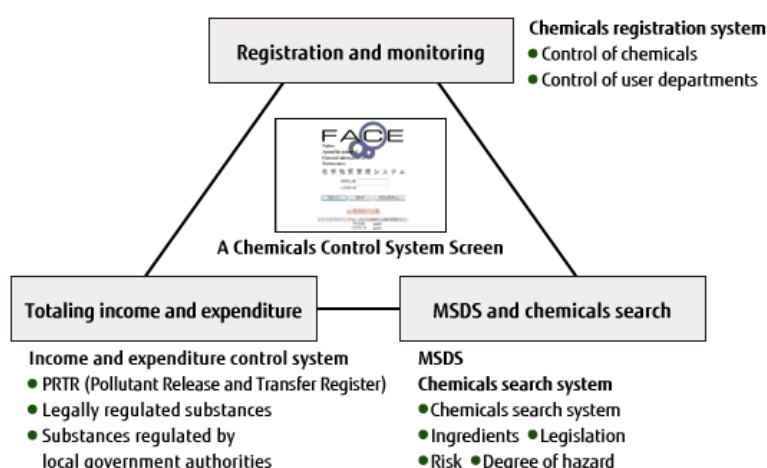
*6 PRTR :
Abbreviation of Pollutant Release and Transfer Register. This system requires the registration and reporting of data relating to the emission of harmful chemicals into the environment and volumes within transported waste.

Operation of "FACE," the Chemical Infomation System

The Fujitsu Group operates a Chemical Information System called "FACE." It can be used not only to register and monitor chemicals at every site but also to manage MSDS and control income and expenditure in conjunction with purchasing data and inventory data, FACE is helping the Group to strengthen its chemicals data and make it more efficient.

Overview of Chemicals Control System

Registration and monitoring
Chemicals registration system
● Control of chemicals
● Control of user departments

A Chemicals Control System Screen

Totaling income and expenditure

Income and expenditure control system
● PRTR (Pollutant Release and Transfer Register)
● Legally regulated substances
● Substances regulated by local government authorities

MSDS and chemicals search

MSDS
Chemicals search system
● Chemicals search system
● Ingredients ● Legislation
● Risk ● Degree of hazard

- Basic Policy for Chemical Substances Management : Case Study Archives

Preventing Air and Water Pollution

Preventing Air Pollution

We have set voluntary controls that are more stringent than emissions standards under related laws and ordinances in order to prevent air pollution and limit acid rain. Regular measurement and monitoring is conducted based on these controls. Efforts are made to appropriately process sulfur oxide, nitrogen oxide and other harmful substances and reduce emissions through measures such as controlling incineration at facilities that emit smoke, using fuels with low sulfur content, and managing operations at exhaust gas processing facilities. In addition, emission of dioxins has been prevented by suspending use of (completely phasing out) all in-house incineration facilities as of January 2000.

Preventing Water Pollution

In order to preserve the water quality of surrounding waterways, including rivers, groundwater and sewers, we have set voluntary controls that are even tougher than related laws and ordinances and conduct regular measurement and monitoring on this basis. We are working to appropriately process harmful substances and other regulated substances (COD, BOD, etc.) and reduce discharges of them by ensuring appropriate chemical use, preventing chemical leaks and permeation, and managing the operations of water treatment and purification facilities, among other measures.

Preventing Ozone Layer Depletion

Elimination of Ozone-depleting Substances

The Fujitsu Group has completely eliminated use of ozone-depleting substances in manufacturing processes (parts cleaners and solvents) by utilizing precision aqueous cleaning systems and no-clean soldering technologies. Refrigerant CFCs used in air conditioning equipment (freezers, etc.) are being replaced with non-CFC refrigerants when equipment is upgraded, and measures are also taken to prevent leaks.

Achievements in Abolishing Ozone-depleting Substances

Ozone-depleting substance	Date of elimination
Cleaning freons (CFC-113, CFC-115)	End of 1992
Carbon tetrachloride	End of 1992
1,1,1-trichloroethane	End of October 1994
Substitute freons (HCFCs)	End of March 1999

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 in this area from a medium- to long-term perspective. To achieve this, at the end of FY 2011 we recorded as a liability on the Group's consolidated balance sheet 8.94 billion yen in soil-pollution cleanup costs, high-level polychlorinated biphenyl (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 (additional costs likely forthcoming with the recent detection of PCB in monitoring wells at the Suzaka Plant).

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.
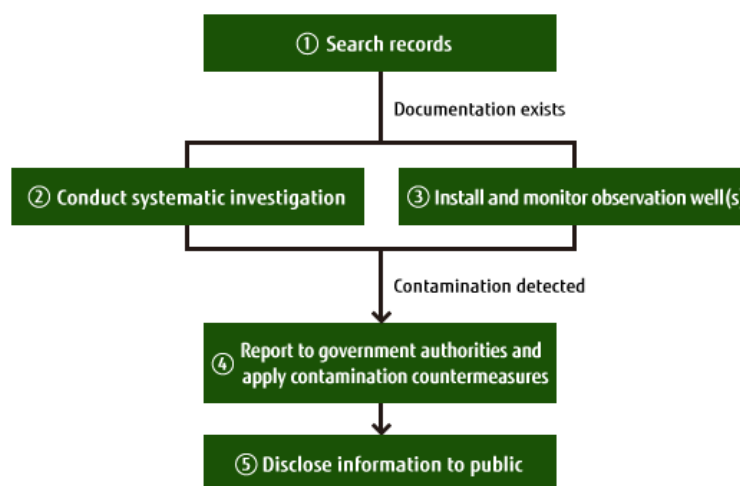
Preventing Soil and Groundwater Pollution

Fujitsu conducts soil and groundwater contamination surveys, implements countermeasures, and discloses the resulting data.

Basic Approach

We review as necessary 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, in parallel with performing planned surveys and, if contamination 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.

Monitoring the Impact of Groundwater Contamination Outside of Fujitsu Sites*

① Search records

Documentation exists

② Conduct systematic investigation ③ Install and monitor observation well(s)

Contamination detected

④ Report to government authorities and apply contamination countermeasures

⑤ Disclose information to public

* We monitor groundwater contamination near our sites, which is the largest risk for soil and groundwater pollution.

Status of New Soil and Groundwater Pollution Measures Undertaken in FY 2011

A voluntary survey in FY 2011 revealed soil and groundwater contamination at one site. We reported the state of contamination at this site and explained our countermeasures to local citizen and authorities.

- Groundwater Contamination Survey Results and Status of Cleanup Measures at Fujitsu Group Business Sites in Japan (in Japanese) [250KB]

Measures to Clean Up Soil and Groundwater Pollution Due to Past Business Activities

We have dug wells to monitor groundwater contamination near our sites where soil or groundwater pollution has been found. We continuously monitored seven such sites in FY 2011.

The table below lists the largest of the most recent measurements for chemicals with levels recognized to have exceeded legal limits in FY 2011 stemming from past business activities.

Business Sites Where Soil or Groundwater Contamination Has Been Found

Site Name	Location	Cleanup and Countermeasure status	Monitoring Well Maximum Value (mg/l)		Regulation Value (mg/l)
			Substance	**Measured Value**	
Kawasaki Plant	Kawasaki City, Kanagawa Prefecture	We are counting to clean up VOCs by pumping and aeration.	Cis-1, 2-dichloroethylene	5.3	0.04
Oyama Plant	Oyama City, Tochigi Prefecture	We are counting to clean up VOCs by pumping and aeration.	Cis-1, 2-dichloroethylene	6.107	0.04
			Trichloroethylene	0.043	0.03
Nagano Plant	Nagano City, Nagano Prefecture	We are counting to clean up VOCs by pumping and aeration.	Cis-1, 2-dichloroethylene	0.21	0.04
Suzaka Plant*1	Suzaka City, Nagano Prefecture	Soil survey underway to determine cause of contamination	Polychlorinated biphenyl	0.0028	Must not be detected
Shinetsu Fujitsu	Shinano machi, Kamiminochi Gun, Nagano Prefecture	We are counting to clean up VOCs by pumping and aeration.	Cis-1, 2-dichloroethylene	0.12	0.04
Fujitsu Optical Components	Oyama City, Tochigi Prefecture	We are counting to clean up VOCs by pumping and aeration.	Cis-1, 2-dichloroethylene	0.13	0.04
			Trichloroethylene	0.172	0.03
FDK Sanyo plant	Sanyo-Onoda City, Yamaguchi Prefecture	We are counting to clean up VOCs by pumping and aeration.	Cis-1, 2-dichloroethylene	0.055	0.04
			Trichloroethylene	0.12	0.03
FDK Washizu Plant	Washizu, Kosai City, Shizuoka Prefecture	We are counting to clean up VOCs by pumping and aeration.	Trichloroethylene	0.17	0.03
			Tetrachloroethylene	0.06	0.01

*1 Suzaka Plant :
Contamination was confirmed at the Suzaka Plant in FY 2011. However, because countermeasures were scheduled to begin in FY 2012, it was not included in the number of business sites with ongoing cleanup and countermeasures.

Environmental Activities in Offices

We strictly observe all laws concerning the environment and also work to save energy and achieve zero waste emissions, not only at our production sites but also at all our business offices.

Green Office Systems

Along with ensuring legal compliance with environmental regulations, the Fujitsu Group vigorously promotes environmental activities at its business offices, including efforts to save energy, achieve zero waste emissions and contribute to society.

As part of this effort, 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 in the Fujitsu Group Environmental Protection Program (Stage V). We established the goal of achieving a level of two stars (★★) or more at every office in Japan covered by this system by the end of FY 2009, and worked 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 (★★★) level by the end of FY 2009. At the same time, we also achieved zero waste emissions[*1] of waste materials from all 371 sites, in what was the largest effort of its kind in Japan.
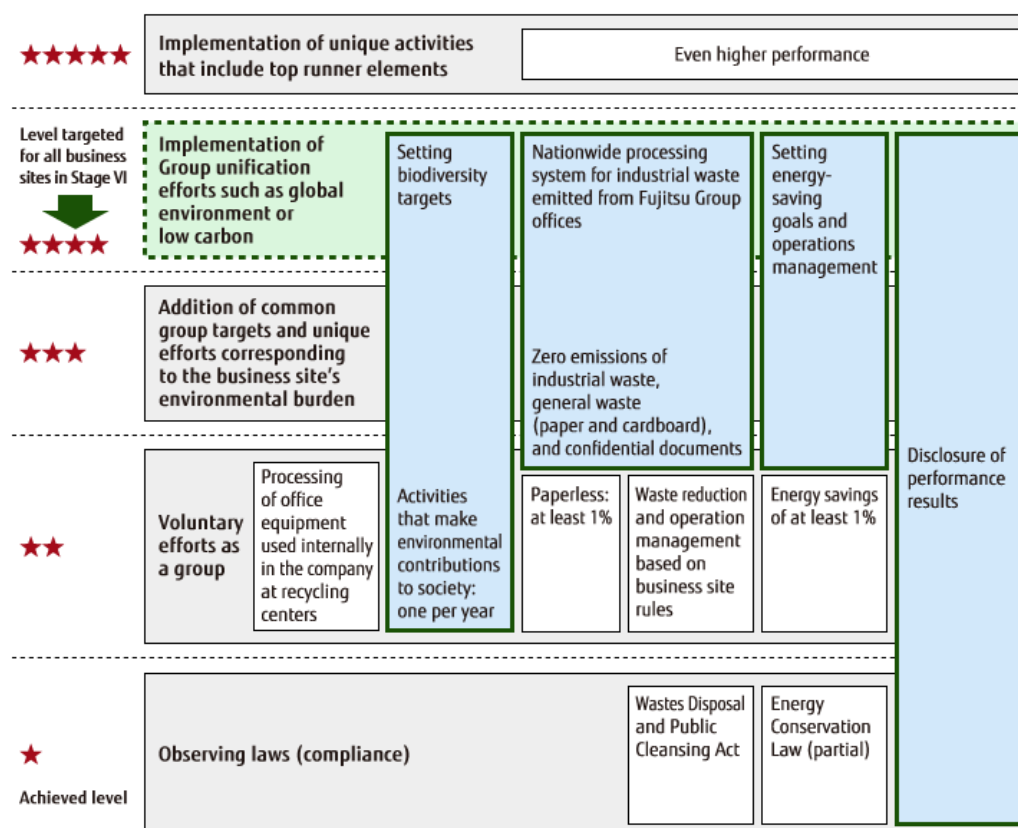
In the Fujitsu Group Environmental Protection Program (Stage VI), which started in FY 2010, we set achieving a level of four stars (★★★★) or higher at every office in Japan covered by this system by the end of FY 2012. In addition to the three star (★★★) level conditions, the following items were added to the four 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, in tandem with initiating activities to achieve this goal, we sought 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 FY 2011 we collected system proposals based on the results of this survey and are looking into implementing trials based on those proposals in FY 2012.

By operating this system, we plan to render visible the details of the activities carried out by our offices, construct databases that allow the activities to be shared with and rolled out to other offices, and thereby continue to raise the level of environmental activities throughout the Fujitsu Group.

*1 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

★★★★★	Implementation of unique activities that include top runner elements	Even higher performance			
Level targeted for all business sites in Stage VI ★★★★	Implementation of Group unification efforts such as global environment or low carbon	Setting biodiversity targets	Nationwide processing system for industrial waste emitted from Fujitsu Group offices	Setting energy-saving goals and operations management	
★★★	Addition of common group targets and unique efforts corresponding to the business site's environmental burden		Zero emissions of industrial waste, general waste (paper and cardboard), and confidential documents		Disclosure of performance results
★★	Voluntary efforts as a group / Processing of office equipment used internally in the company at recycling centers	Activities that make environmental contributions to society: one per year	Paperless: at least 1% / Waste reduction and operation management based on business site rules	Energy savings of at least 1%	
★ Achieved level	Observing laws (compliance)		Wastes Disposal and Public Cleansing Act	Energy Conservation Law (partial)	

Creating a Database of Environmental Activity Measures, and Utilizing Checklists

Through Green Office system implementation, we check and create a database of the progress and status of measures targeting energy efficiency, waste reduction, paperless operations and other goals at all applicable offices, and produce a checklist of key measures.

These checklists are proving useful not only as a reference for potential measures to adopt when offices set their environmental objectives and targets, but also for invigorating and enhancing activities by making visible operational improvement issues and measures that require investment.

Reducing Waste from Offices

On-Site Waste Disposal Auditing

The major environmental law to which all offices in Japan are subject is the Waste Management and Public Cleansing Act.

To confirm that ICT equipment and other types of industrial waste are being properly dealt with, the Fujitsu Group has developed and operates a structure under which Fujitsu Recycling Centers, as waste processing specialists for in-house ICT equipment, have been established wherever Group companies operate. Under this framework, we perform standardized Group-level checks through periodic, on-site audits. Specifically, a member of the Fujitsu Corporate Environmental Strategy Unit visits the recycling centers 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.

In addition, to sustain and improve security levels with respect to confidential document disposal, we implement on-site validation once a year of Japan Security and Recycle Network, a company that processes confidential documents based on a nationwide paper recycling system.

- Reducing the Waste Generated in Office : Case Study Archives

Reducing CO2 Emissions in Offices

Efforts by the Fujitsu Group to reduce CO2 emissions are guided mainly by promotion of the measures detailed below.

- Energy-saving equipment measures (for Group-owned buildings)
- Adjust appropriate room temperature for office air conditioning (28°C in summer and 20°C in winter)
- Extinguish unnecessary lighting, shorten air-conditioner use outside of regular work hours (uniform quitting time, etc.)
- Set energy-saving mode for PCs, turn off display when away from desk
- Turn off standby mode power in AC adapters, use smart power sockets
- Implement nighttime operation control for PCs, shared terminals, development terminals and other equipment
- Consolidated access points
- Perform in-house and request external evaluations of energy efficiency

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Case Study

Fujitsu Finland Head Office Granted the WWF Green Office Logo

The head office of Fujitsu Finland Oy has been granted the WWF Green Office logo. To meet the qualifications for this recognition the company had to conduct environmental assessments, establish environmental targets, demonstrate tangible environmental achievements and take an active stance in internal environmental communication. Moreover, before being granted the Green Office diploma, the company had to pass an office inspection by a WWF Green Office expert.

Fujitsu Finland remains committed to taking assertive action to contribute to the global environmental activities of the Fujitsu Group.
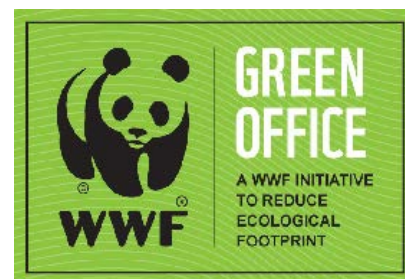
Green Office Logo

Case Study

Videoconferencing System Brings Good Global Communication

Fujitsu Technology Solutions, based in Germany, has installed videoconferencing systems in 49 of its key offices, connecting its businesses across the European continent, the Middle East, Africa, and India. This move is intended to improve global communications, and reduce the time and carbon footprint required for business travel.

Over 2,000 video conferences have been held since the system began operating on December 1, 2011, through the end of April 2012. Use of the system has grown steadily since its introduction, and employees participating in video conferences have experienced better communications, while improving day-to-day productivity without having to actually visit distant offices.

The company's domestic German sales division used the system for its FY 2012 kick-off meeting, with over 600 people at 11 locations participating by video conference. This event is designed to raise employee motivation and build team cohesion, and the system helped the speech by CEO Rolf Schwirz come alive for the participants. The system has thus been extremely useful not only in improving communications, but in enhancing cooperation among teams scattered across multiple locations.

Offices that have installed the videoconferencing system

- [Reducing CO2 Emission in Offices : Case Study Archives](#)

Green Procurement with a Centralized Global Procurement System

To provide our customers with products and services that have minimal environmental impact, the Fujitsu Group is promoting green procurement together with our business partners through a centralized global procurement system as it strives to protect the global environment.

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, as we strive to protect the global environment.

- Fujitsu Group Green Procurement Direction

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*1

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. To assist those partners unable to establish certified EMS in a short timeframe, we provide them with the Fujitsu Group's own EMS, and offer support until certification is obtained. We also periodically survey the status of their EMS implementation by using our original survey form.

EMS Levels Required for our Business Partners
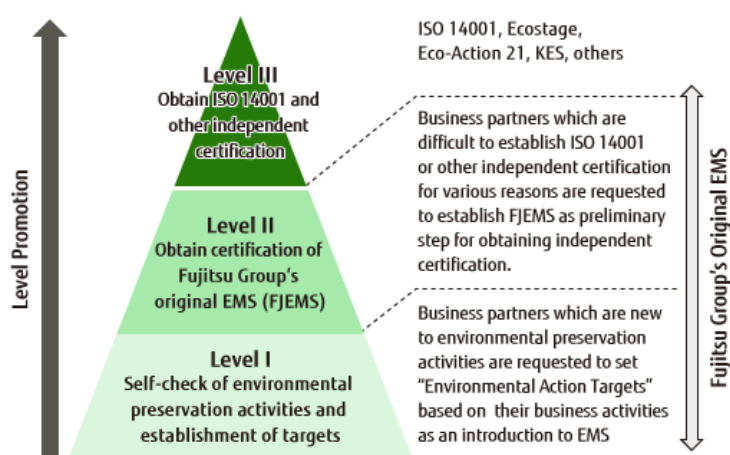
*1 EMS:
Environmental management system

Promoting Our Business Partners' Efforts to Limit or Reduce CO2 Emissions and to Conserve Biodiversity

We have been promoting the limitation or reduction of CO_2 emissions and the conservation of biodiversity under the Fujitsu Group Environmental Protection Program (Stage VI) (FY 2010 to FY 2012), and we ask all of our business partners to implement activities regarding these two themes. In this way, the Fujitsu Group is working to embed its environmental initiatives across the entire supply chain.

We have set a target of 100% implementation (based on the number of companies) 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 to assess the initiative stage of our business partners' actions, and request that they carry out activities in line with this index to achieve the target.

To encourage business partners to limit or reduce CO_2 emissions, we have created a tool that enables them to calculate emissions from power consumption. The tool features a function that automatically calculates CO_2 reduction plans each month. In particular, business

partners that previously did not have quantitative targets for CO2 emissions reductions are now using the tool to ascertain their current emissions and formulate new reduction targets.
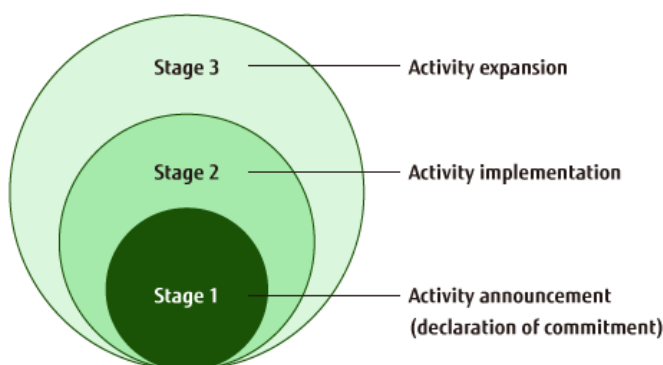
We provided business partners with our guidelines for biodiversity conservation, introducing detailed informative explanations of activities and typical activity examples, and our checklist tool that readily evaluates the current status of their activities. These materials are intended to facilitate understanding of the importance of biodiversity conservation, instill awareness of the relationship between everyday environmental activities and biodiversity, and encourage business partners to tackle the issue in a highly accessible way.

We not only ask business partners to engage in initiatives, we also hold seminars on these two subjects to discuss why efforts are necessary and where to begin while providing specific examples. In FY 2010 and FY 2011, a total of seven seminars were held, in 70 business partners participated.

As result of these efforts, we achieved an implementation rate of over 80%, our target for the end of FY 2011. We are aiming for 100% in FY 2012, strengthening ties with business partners in order to make further improvements in these areas.

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.

- Stage 3 — Activity expansion
- Stage 2 — Activity implementation
- Stage 1 — Activity announcement (declaration of commitment)

TOPICS

Participatory Environmental Protection Activities for Business Partners

On October 30, 2011, the environmental protection activity led by the Purchasing Unit was held at the Higashitoyoda Nature Preserve in Hino, Tokyo, and elicited the participation of numerous business partners. The Fujitsu Group has conducted many environmental protection activities, but this was the first involving the direct participation of business partners.

The activities were planned and held to serve as a springboard for business partners to launch their own biodiversity conservation initiatives.

Thirteen people from ten business partners participated, and a total of 15 people from Fujitsu took part as well, including the presidents of the Purchasing Unit and Corporate Environmental Strategies Unit, and middle managers from the Purchasing Unit. The day's activities included cutting down bamboo grass and clearing away fallen trees. During breaks in the work, nature observations were conducted in the preserve, which renewed awareness of the importance of regular, manual woodland preservation activities. Fujitsu intends to continue this kind of activity going forward.

Environmental protection activities

Establishment of Our Business Partners' CMS*2

We request our business partners to establish a chemical substances management system (CMS) based on the JAMP*3 guidelines on management of chemical substances contained in products. If their management system is inadequate when we audit their manufacturing sites for parts supplied to the Fujitsu Group, we will provide support for correctional efforts that aim to strengthen their management system in the supply chain. Once business partners were recognized a CMS has been established, we periodically check the operational status of the system. The Fujitsu Group will continue CMS development efforts of this kind to ensure that strict legal compliance is maintained.

*2 CMS:
Chemical substances management system

*3 JAMP:
Joint Article Management Promotion-consortium

Collaborating with Business Partners in Chemical Substances Management

In order to comply with new chemical regulations in Japan and globally, starting with Europe's REACH regulations, we started surveys in June 2011 based on the AIS*4 and MSDSplus*5 formulated by JAMP. Ahead of the surveys, in May, Fujitsu held seminars on creating AIS sheets for 73 processing-related business partners in Japan. And in June, we also held seminars for 17 business partners in greater China. The seminars included computer-based study and instruction on how to prepare AIS sheets.

A seminar held in Japan

ProcureMART*6, a Fujitsu Group product for online procurement, is used to connect the Fujitsu Group with its business partners, which enables purchasing activities and chemical substance surveys to be conducted with a single interface. Management of chemical substance information sent from business partners is accomplished by utilizing another Fujitsu Group product, PLEMIA/ECODUCE*7, and information is shared within the Group.

The Fujitsu Group is actively involved in standardization activities for green procurement surveys being promoted by industry bodies like JAMP. We intend to continue raising the efficiency of such supply chain surveys going forward.

*4 AIS:
Information transmission sheet for conveying information on chemical substances in molded products.

*5 MSDSplus:
Information transmission sheet for conveying information on chemical substances in chemicals and preparations.

*6 ProcureMART:
Service that allows procurement processes for production materials to be conducted online.

*7 PLEMIA/ECODUCE:
Fujitsu's chemical substance management system

Raising Product Value with Environmental Technologies (Soliciting Proposals for Environmental Technologies)

Fujitsu solicits proposals from business partners on environmental technologies and materials to achieve Green Policy Innovation, our project to help customers reduce their environmental impact using Green ICT. Outstanding proposals are suggested to design and development divisions for timely, horizontal adoption across Fujitsu.

Proposals made by business partners are evaluated in our specialist divisions and exceptional proposals are considered for adoption. All information is stored in an internal database that can be accessed and further developed across Fujitsu. We remain committed to proactively adopting outstanding environmental technologies and materials, and will continue to develop and promote products with exceptional environmental performance.

Refer to the following URL for details on the types of environmental technologies Fujitsu is seeking and how proposals are made.

- About the Environmental Technologies Proposal Application

Infrastructure for Achieving Green Policy Innovation
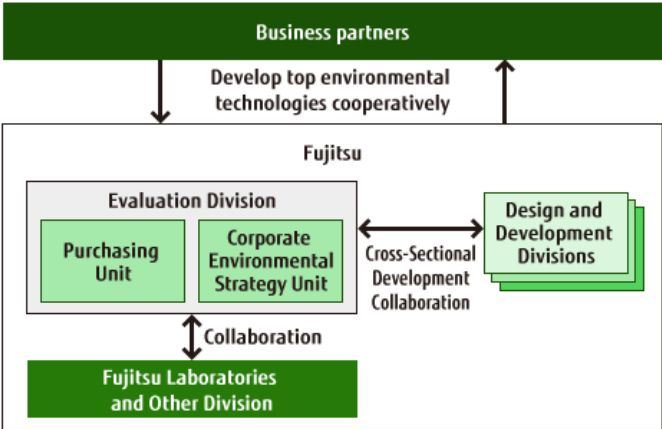
Environmental Considerations in Transportation

We are promoting the rationalization and streamlining of transportation while keeping the whole global supply chain in mind. We are also working to reduce the CO2 emissions associated with transportation.
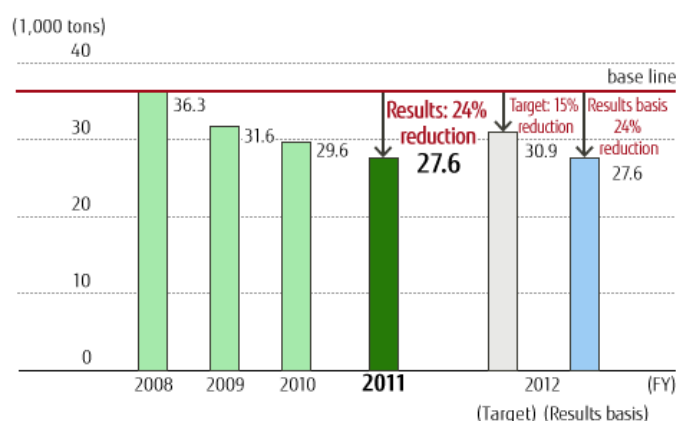
Promoting Global Green Logistics Activity

We are working on Green Logistics Activities which strive to reduce CO2 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 collaborations with our business partners and strive to reduce the environmental burden associated with distribution across the whole supply chain.

Our goal was to reduce CO2 emissions in domestic distribution by 15% 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 a 24% reduction (this includes fluctuations in amounts distributed and the effects of the March 2011 earthquake) compared to FY 2008 in FY 2011. Our CO2 reduction efforts will continue in FY 2012, with sights set on a 24% reduction relative to FY 2008 based on the latest distribution volume data.

We have also started to measure the CO2 emissions in international transportation and the transportation CO2 emissions at overseas sites, and thus are promoting green distribution activities globally.

Trends in CO₂ Emissions from Domestic Transportation in Japan (Fujitsu Group)

(1,000 tons)

FY	Emissions
2008	36.3
2009	31.6
2010	29.6
2011	27.6 (Results: 24% reduction)
2012 (Target)	30.9 (Target: 15% reduction)
2012 (Results basis)	27.6 (Results basis 24% reduction)

Expanding Modal Shifts

The Fujitsu Group is working to reduce CO2 emissions through an ongoing modal shift. This entails effectively utilizing rail transport and switching from air to surface transport in everything from procurement of parts and materials to product distribution.

Fujitsu acquired Eco Rail Mark certification in March 2011, and we will continue to vigorously promote the use of rail transport in FY 2012.

In FY 2011, we further promoted expanded use of rail transport by switching from truck to rail for shipments to KDDI Corp., in addition to shipments for NTT DOCOMO, INC.

Reducing Truck Numbers

In November 2011 we began revising our domestic transport network for personal computers for individual customers and consolidated routes with Tokyo as the hub. This has allowed us to transport computers for individuals together with personal computers for corporate customers on main transport lines from our factories to Tokyo, increasing truck load rates and reducing truck numbers.

Innovations in Maintenance Logistics Service Infrastructure

Fujitsu is working to improve customer service and promote environmentally sensitive green logistics through innovations in maintenance parts and service infrastructure. As part of these efforts, we are relocating parts centers that manage maintenance parts nationwide. Moving parts centers closer to customers and field customer engineers (CEs) has enabled us to shorten the time required to deliver parts to customers.

In addition, we are also promoting an approach in which field CEs go to parts centers and carry back maintenance parts with them, which also serves to reduce the delivery time from parts center to customer while cutting CO_2 emissions.

International Transport Initiatives

The Fujitsu Group began measuring CO_2 emissions from international transport in FY 2008, and is now actively working to reduce emission levels.

Our activities include modal shifts (shifting from air to ocean transport), shortening transport distances, raising container packing rates, and reducing air transport frequency.

Loading a container

Fujitsu Ten Ltd. uses a loading method that effectively utilizes container space by standardizing previously irregular sizes of outer packaging for international transport between Group companies and for procured materials. This initiative was then extended to shipments originating with overseas suppliers, which has served to further reduce the number of containers used.

Initiatives at Group Companies

At major Group companies in Europe, North America and APAC, we have begun measuring CO_2 emissions from international and regional transport.

Fujitsu Technology Solutions (FTS) is promoting green logistics activities by measuring CO_2 emissions related to the transport and taking steps to reduce them.

Shorter Product Transport Distances

FTS is reducing transportation distances by evaluating and conducting direct shipments wherever and whenever possible. For computer displays, typical examples of reduced distances are China to the Middle East, China to Turkey and China to South Africa. For PRIMERGY servers, we were able to route shipments directly from Japan to the APAC region instead of routing them from Japan to Germany and then to APAC. In Germany, we established direct shipments from the factory in Augsburg to the customer without passing through any distribution centers.

Promoting Modal Shifts

We are shifting transport volumes from air freight to sea or rail transportation. Specifically, we were able to increase the sea freight share from Asia to Europe (shift from air to sea) for components used in our FTS factory. In addition, we increased the transport by rail of computer systems from Germany to Mongolia (shift from air to rail).

Packaging and Container Loading Improvements

Efforts to optimize transport volumes by improving package shapes and packing methods are resulting in a higher degree of capacity utilization. Examples for products and routes are mobile base units shipped by sea freight from China to Germany, and a reduction in CTO LIFEBOOK packaging for air freight from Japan to Germany.

Consolidating Shipments for More Efficient Transport

Consolidation of several smaller consignments into one bundled shipment, either by aligning order volume or collecting smaller shipments from different suppliers, results in fullcontainer loads. This approach was used for the sea freight route from China to Germany, with the bundling of several small component consignments into one container load.

Reducing the Use of Cardboard and other Packaging Materials

To reduce the whole environmental burden of the distribution process, we are promoting 3R*1 efforts for packaging products and parts.

Reducing the Use of Cardboard and other Packaging Materials

The Fujitsu Group has been replacing cardboard and other materials used to package products with reusable alternatives. This has reduced the use of cardboard and other cushioning packaging materials.

GreenEcoBelt*2

*1 3R:
Reduce, Reuse, and Recycle

*2 GreenEcoBelt:
Jointly developed by DHL Supply Chain Ltd. and EcoBiz Co., Ltd.

Biodiversity Conservation That Leverages ICT

Information and communications technology (ICT) can be a powerful tool for biodiversity conservation. The Fujitsu Group is striving to employ ICT in biodiversity conservation initiatives in various fields.

Putting ICT to Work in Biodiversity Conservation

ICT excels at tasks like efficiently collecting, analyzing, and interpreting voluminous data, as well as using such data to optimize work processes. These characteristics can also be of great use in biodiversity conservation. For instance, ICT can be utilized on the preservation frontlines not only to enable efficient work but also to yield greater results. The Fujitsu Group is working on new ICT applications for biodiversity conservation.

ICT in Action 1	ICT in Action 2	ICT in Action 3
Goal: Evaluate the Effectiveness of Natural Feeding Grounds for Japanese Cranes	Goal: Harvest Top-Quality Grapes	Goal: Make Time-Consuming Professional Vegetation Surveys Fun and Easy

ICT in Action 1: Goal: Evaluate the Effectiveness of Natural Feeding Grounds for Japanese Cranes

Japanese Crane Conservation Project in Hokkaido's Tsurui Village

A special national treasure, the Japanese crane, or tancho, is designated as a vulnerable species. The Wild Bird Society of Japan set up natural feeding grounds for this species at its Tsurui-Ito Tancho Sanctuary in Hokkaido's Tsurui Village in hopes of preventing its extinction due to the spread of infectious diseases at crowded feeding stations during the winter. However, accurate studies on the use and effectiveness of the natural feeding locations were needed.

Natural Feeding Grounds for Japanese Cranes

Researchers had been using the time-consuming method of setting up video cameras in the field for subsequent retrieval, so investigations were limited to roughly biweekly studies for each location. To assist, Fujitsu installed a video surveillance system that leveraged a multi-sensing network. This enabled the Japanese cranes' activities to be recorded every 10 minutes and the data to be transferred to a nature center. The leap in survey accuracy also newly revealed that feeding sites are actually used by multiple flocks of cranes, whereas it had previously been thought that each flock claimed exclusive territory for feeding.

In addition to ongoing video monitoring of the sanctuary's natural feeding grounds, the project will serve as a platform for enlightening the public on Japanese crane conservation and community network-building. Specifically, tie-ups with organizations like local elementary and junior high schools will be used to promote environmental education, while tourism will also be leveraged to disperse information.

VOICE

Chief Ranger, Wild Bird Society of Japan Preservation Projects Tsurui-Ito Tancho Sanctuary
Shigeo Arita

Japanese cranes depend on human feeding during the winter. The Wild Bird Society of Japan is working with volunteers from around the country to create natural winter feeding grounds so that the cranes can forage for food on their own in the wild.

Thanks to installation of the multi-sensing network, we can continuously monitor the feeding grounds. This helps us gauge the effectiveness of our conservation efforts as well as make improvements. We will use the system to expand our initiatives to preserve Japanese cranes' wintering grounds.

ICT in Action 2: Goal: Harvest Top-Quality Grapes

Vineyard Temperature-Sensing Project in Yamanashi Prefecture's Kofu City

Wine vineyards in Kofu City, Yamanashi Prefecture bloom in mid-June and approach harvest in September. Vineyard temperatures play a major role in determining optimum harvest and pest-control timelines. For example, the best time to pick grapes for winemaking can be determined from the cumulative difference between the daily high and low temperatures since the flowering date. In addition, grape pigment levels can be determined from the cumulative duration of time each day when the temperature drops below 22 degrees Celsius from the hottest summer day to the harvest date. However, due to the difficulty in acquiring detailed and accurate temperature data, farmers had been relying on long years of experience and instinct to make these decisions.

Fujitsu launched a temperature-sensing field trial in June 2011, spurred by a consultation about temperature measurement from a vineyard where its employees had been participating in an agriculture experience program. Utilizing a multi-sensing network, we outfitted the vineyard with sensor boxes from which the administrative office received temperature data every 10 minutes around the clock. We also utilized a temperature data collection and analysis program to realize accurate assessment of vineyard temperature trends.

Using these sensing methods substantially reduced temperature measurement man-hours. Accurate temperature data also enabled effective pest control, which led to better wine quality and less pesticide use. In fiscal 2012, we will take the ongoing agricultural sensing system field study to the next level by adding rain and humidity gauges as part of efforts to contribute to ICT use in agriculture.
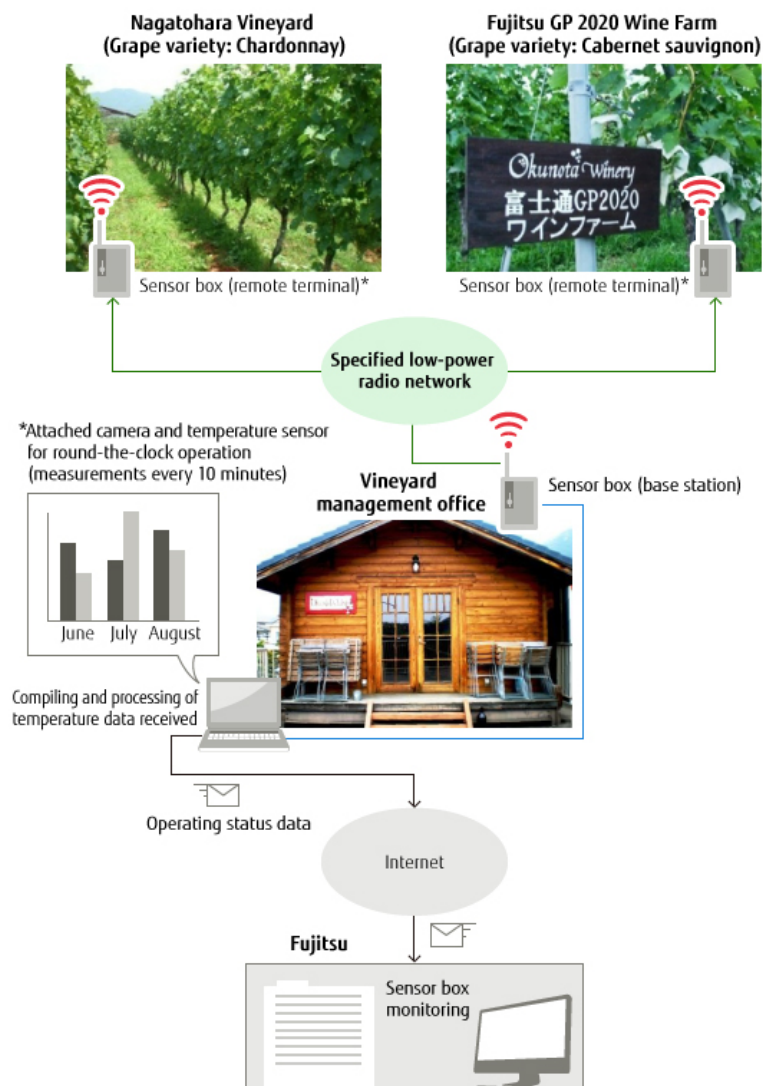
Representative Director, Okunota Winery
Masakazu Nakamura

The installation of a multi-sensing network has now made it possible to check changes in temperature at the vineyard every 10 minutes without ever leaving our office. This benefit, in turn, has enabled us to take appropriate steps to fight off harmful microbes that could stunt grape growth. As a result, although the average wine vintage in Yamanashi Prefecture in 2011 was not very good, Okunota Winery was recently able to produce its finest vintage. In fiscal 2012, we are collecting data on measured rainfall and humidity as well. In this way, we are utilizing ICT in our quest to produce high-quality wine.

- Fujitsu Launches Sensor-based Agricultural Support Efforts at Wine Farm in Japan's Yamanashi Prefecture(in Japanese) [Press Release]

ICT in Action 3: Goal: Make Time-Consuming Professional Vegetation Surveys Fun and Easy

Tamagawa River Vegetation Survey Using Mobile Phone Photo System

It is important to have an accurate understanding of the wildlife and vegetation inhabiting a region when considering measures to conserve its biodiversity. This information has conventionally been obtained through studies led by experts who go out in the field and construct mesh maps of the area, but this process is extremely laborious and time-consuming. In 2011, Fujitsu set out to make vegetation studies easy and fun, utilizing photographs taken with GPS-equipped mobile phones to conduct a study of vegetation along the Tamagawa River in Kawasaki City in cooperation with the municipal government and NPOs.

For the survey, we divided around 28km of the Tamagawa River Basin in Kawasaki City into roughly 7km segments and participants into four groups to photograph the vegetation in each of the segments using mobile phones. One of the great things about this survey was that many people were able to participate and image and positional information was easily collected thanks to the use of everyday equipment-mobile phones. Things learned from the survey include that wild radishes only exist downstream of the Shintamagawa Bridge on Daisan Keihin Road, whereas wild chrysanthemums are only found upstream of the Tokyu Railway Toyoko Line bridge.

By continuing to leverage ICT to support vegetation surveys, the Fujitsu Group aims to make scholarly contributions to both vegetation taxonomy and conservation ecology, while sparking interest in biodiversity through activities in which a wide range of people can enjoy taking part.

Mobile Photo System
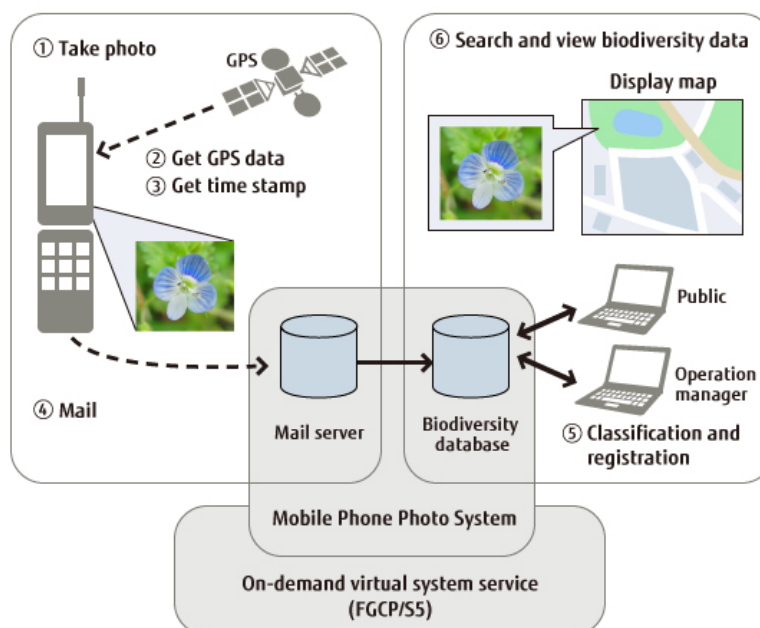
Assistant Manager for Coproduction Promotion, Tama River Policy Promotion Section, Greenery Development Department, Construction and Greenery Development Bureau, City of Kawasaki
Ryuji Inada

We are thankful for understanding and cooperation on the Tamagawa River vegetation survey, and are carrying out our operations in collaboration with the community while utilizing Fujitsu's ICT. Using familiar mobile phones to conduct the latest survey made it fun for all involved. Compiling survey results was also a breeze and it was clear that the system is easy for anyone to use. We intend to make good use of the survey results, while continuing to advocate partnerships with civic, corporate, and government organizations.

- Utilizing ICT in Tamagawa River Vegetation Surveys(in Japanese) [Press Release]

Conservation of Biodiversity

We have set conservation of biodiversity as a priority area in the Fujitsu Group Environmental Protection Program (Stage VI), and are promoting activities aimed at realizing this goal.

Basic Concepts

Only the bounty of nature makes our daily lives possible. From the provision of food and forests, to climate regulation, water purification and recreation, the value to humankind of the functions nature performs is 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 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. We then established four related action plan items in the Fujitsu Group Environmental Protection Program (Stage VI), which started in FY 2010.
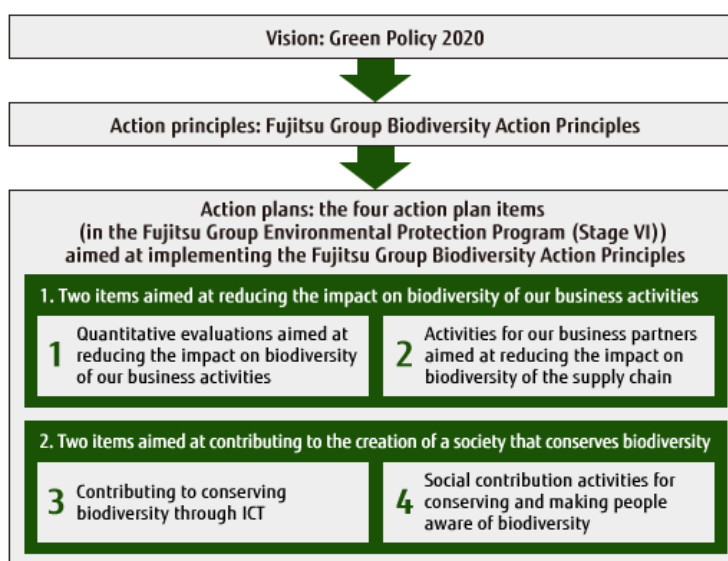
- Fujitsu Group Biodiversity Action Principles

Conservation of Biodiversity in Our Business Activities

In the Fujitsu Group, we are trying to reduce the environmental burden that results from our business activities based on an awareness of the consequences our actions have for biodiversity.

We have prepared Group guidelines on biodiversity for all phases of a product's life cycle; namely research, design, development, procurement, production, transportation, marketing, utilization and recovery. The guidelines outline the specific measures we must take for each of these phases and all our employees can refer to them to understand precisely how their work relates to biodiversity and what they need to do to reduce their environmental impact.

## 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 understood 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 land 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 gases 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. This approach can 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. In FY 2011, we achieved a 4.6% reduction compared to FY 2009, mainly through decreases in energy resource usage and waste processing. Going forward, we will strengthen our activities that reduce the impact on biodiversity.

Framework for Quantitative Evaluation Using the Fujitsu Group BD Integration Index
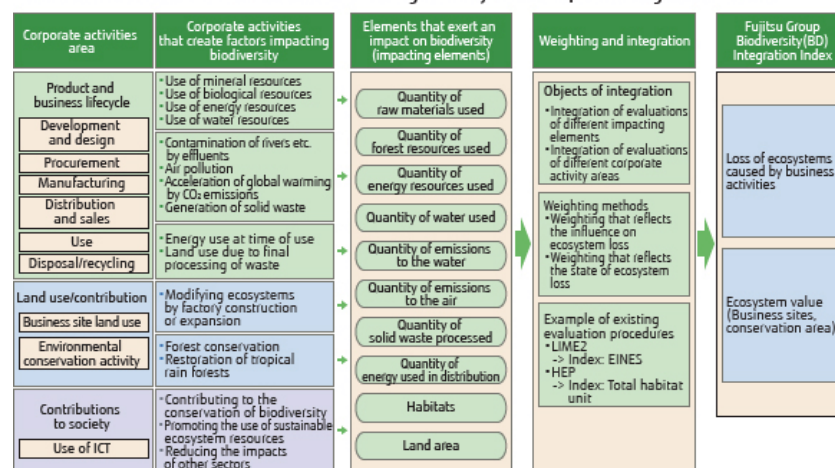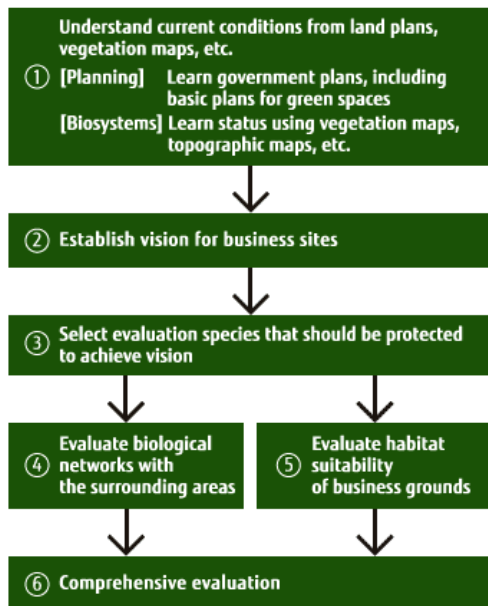
Office Land Use Assessments

The properties on which Fujitsu offices and plants sit occupy a certain area within their local communities. In building local ecosystem networks, it is thus important that we position these properties as "patches" within these networks, consider how the properties should be maintained, and implement measures for their conservation. To do this, we need to implement a PDCA cycle in which we first conduct a quantitative assessment of the current density of biodiversity on our properties, enact conservation measures based on those assessments, and monitor and evaluate the results.

Fujitsu, in collaboration with Fujitsu FIP Corporation and Professor Akira Tanaka of the Department of Environmental and Information Studies, Tokyo City University, has developed KANTAN HEP, a procedure used to select which regional wildlife should be conserved by designating species of value. Assessments are then performed of those species' habitats in terms of ease of living.
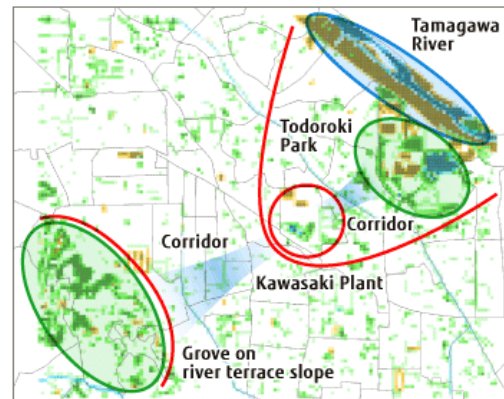
This methodology was applied at Fujitsu's Kawasaki Plant (Nakahara-ku, Kawasaki, Kanagawa Prefecture) and an assessment conducted.

The Kawasaki Plant, which occupies approximately 15 hectares, is located between the Tama River and a forested incline that makes up part of the river's fluvial terrace, and can be considered one area (or "patch") that comprises the ecosystem network of the region. Selected for this assessment as regional wildlife requiring conservation were the great tit (forest), the giant mantis (grassland), and the common kingfisher (waterside). The continuity of the habitat for these three species in the area around the plant was then assessed, and the land within the plant premises was then weighed for its suitability as a habitat by using a Habitat Suitability Index (HSI[*1]) scorecard to evaluate vegetation, water, activity and rest, and breeding conditions.

Flow of Evaluation

① [Planning] Understand current conditions from land plans, vegetation maps, etc.
Learn government plans, including basic plans for green spaces
[Biosystems] Learn status using vegetation maps, topographic maps, etc.

↓

② Establish vision for business sites

↓

③ Select evaluation species that should be protected to achieve vision

↓

④ Evaluate biological networks with the surrounding areas   ⑤ Evaluate habitat suitability of business grounds

↓

⑥ Comprehensive evaluation

Ecological network centered on Kawasaki Plant

The assessment regarding the great tit, for example, revealed that safety was low in terms of vegetation, water, activity and rest, and breeding space, and the plant is now considering placing certain areas off-limits as a means of conservation. Assessment of the continuity of habitat for the great tit in the area around the Kawasaki Plant showed some continuity with areas along the Tama River and green areas in nearby Todoroki, but it was also learned that no continuity could be found with the river's fluvial terraces and hillside forests.

Application of this methodology is not only useful in efforts to conserve biodiversity on property where offices and plants are located. Through cooperation with governments, local residents, NPOs, and other companies, it can be helpful in considering specific conservation measures needed to build regional ecosystem networks.

Examples of assessment of the great tit in forests
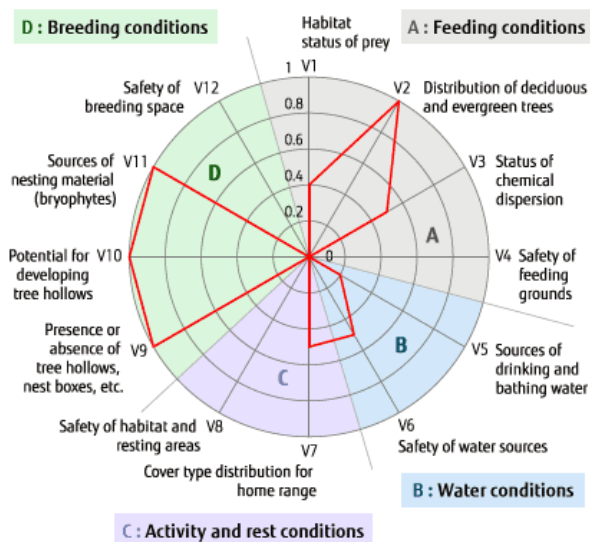
Ongoing assessment in surrounding areas
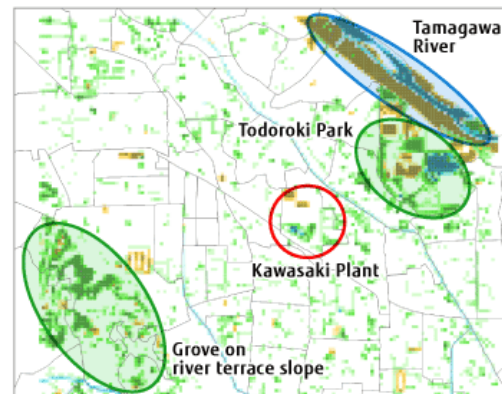

*1 Habitat Suitability Index (HSI) :
An index used to provide a quantitative assessment of wildlife habitats.

ICT and Biodiversity

Contributing to the Conservation of Biodiversity Using ICT

Using ICT to appropriately collect, analyze, assess, and manage complex, wide-reaching information on biodiversity makes it possible to avoid or reduce the loss of biodiversity, and to contribute to its maintenance and expansion.

The Possibility of Conserving Biodiversity through ICT
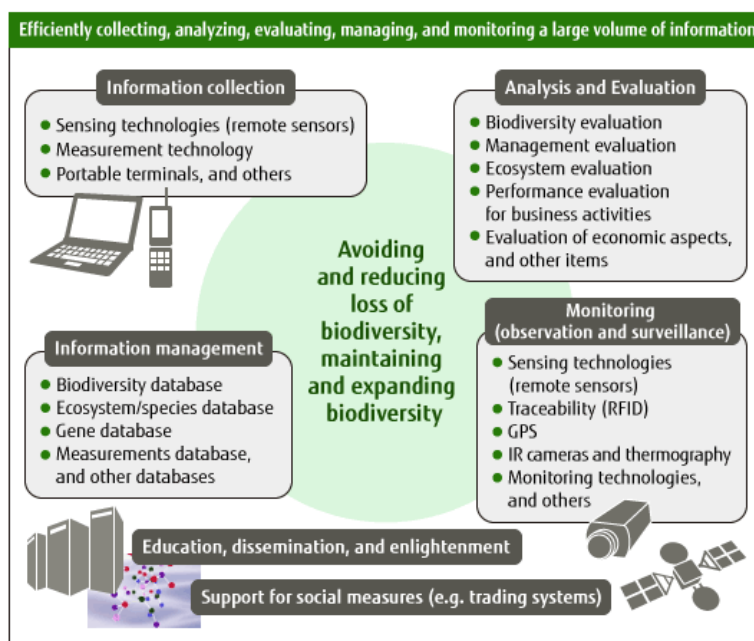
Examples of the use of ICT in biodiversity conservation include a nationwide survey of dandelions and a survey of vegetation along the Tama River, both using a mobile photo system. A multi-sensing network has also been used to contribute to conservation of the Japanese crane.

An example of the use of ICT in agriculture, one of the provisioning sides of ecosystem services, is the application of a multi-sensing network at Yumekyo Grape Farm Ltd., a winery located in Yamanashi Prefecture.

- Highlight - Biodiversity Conservation That Leverages ICT -

Contributing to Spreading these Efforts Throughout Society

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 Ec- 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.

In FY 2011, 31 Fujitsu Group employees and family members experienced forest planting and forest maintenance at these sites firsthand, and also took study tours of primary forests and mangrove forests.

Maintenance Experience: Tours of Primary Forests

An eco tour in progress

Mangrove Tree Planting in Thailand

Similar to actions in 2010, in April and July of 2011 42 employees of Fujitsu System Business (Thailand) (FSBT), an ICT solution company, planted mangrove saplings in Chonburi Province as part of at marine conservation and ecosystem restoration efforts. Planting of mangroves has become an annual part of FSBT's environmental conservation program, and through these activities, FSBT is working to fulfill its responsibility as one of Thailand's leading green ICT companies.

Planting Mangrove Sapling

Environmental and Social Contribution Activities

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 at our offices, stores, and plants throughout Japan, as well as at our overseas sites. We also participate in everyday social contribution activities, such as collecting used plastic bottle caps, stamps and prepaid cards.

Case Study

Neighborhood Cleanup Activities (Tatebayashi System Center)

Each year as part of its Environment Month events, labor and management at Tatebayashi System Center jointly hold a cleanup of the area around their facility. In FY 2011, a total of 189 employees participated in picking up trash along nearby roads and neighboring parks, weeding roadside plantings, and other activities.

Case Study

Oita Cleanup and Campaign to Recycle Fallen Leaves, and Solar Eco-Lantern Project (Oita Systems Laboratory)

On January 26, 2012, a total of 25 employees participated as the Oita Systems Laboratory held a cleanup day and a class on making eco-friendly solar lanterns, as part of its contribution to the local community.

First, at lunchtime they cleaned up the riverside park, streets, and roadside plantings in the area around the laboratory, picking up fallen leaves and making mulch. After work, they held a class on making eco-friendly solar lanterns, some of which they donated to Oita Prefecture in order to help protect the himeyuri, a variety of lily that has been designated a Class I endangered species in the prefecture.
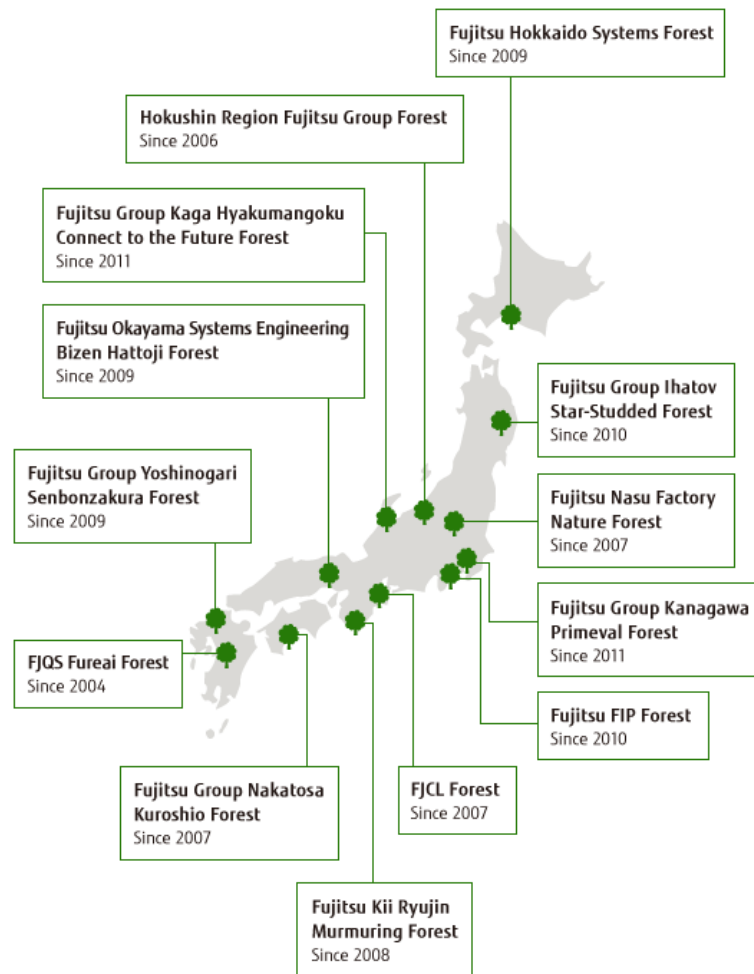

Nature Conservation

The Fujitsu Group is working on forest conservation, urban woodland preservation, seashore cleanup and similar activities to promote the maintenance and recovery of biodiversity and to defend nearby natural environments.

Forest Conservation Activities

The Fujitsu Group carries out forest conservation activities throughout Japan. Among these, 13 locations participate in the "Corporate Forest" program promoted by local governments and implement forest conservation activities as "Fujitsu Group Forest." We also engage in planting activities around the world that help to conserve biodiversity.

Fujitsu Group Forest

Fujitsu Hokkaido Systems Forest
Since 2009

Hokushin Region Fujitsu Group Forest
Since 2006

Fujitsu Group Kaga Hyakumangoku Connect to the Future Forest
Since 2011

Fujitsu Okayama Systems Engineering Bizen Hattoji Forest
Since 2009

Fujitsu Group Ihatov Star-Studded Forest
Since 2010

Fujitsu Group Yoshinogari Senbonzakura Forest
Since 2009

Fujitsu Nasu Factory Nature Forest
Since 2007

Fujitsu Group Kanagawa Primeval Forest
Since 2011

FJQS Fureai Forest
Since 2004

Fujitsu FIP Forest
Since 2010

Fujitsu Group Nakatosa Kuroshio Forest
Since 2007

FJCL Forest
Since 2007

Fujitsu Kii Ryujin Murmuring Forest
Since 2008

Case Study

Clearing Underbrush in the FJQS Fureai Forest

As part of its contribution to the local Kyushu community, in 2004 Fujitsu Kyushu Systems (FJQS) established a 10-year plan to work with Aso Green Stock, a public-interest foundation, to plant, maintain, and preserve forest land. By 2008, the FJQS Fureai Forest was completed, with 15,000 trees planted across 7.8 hectares. Currently, under a plan running through 2012, the project focuses on clearing underbrush as part of the management and preservation phase.

Clearing Underbrush in the FJQS Fureai Forest

Satoyama Preservation

In Japan today, urban woodlands (or Satoyama) are plagued by a variety of problems, such as abandoned farmland and an increase in invasive species, causing the original Satoyama ecosystem to gradually disappear. The Fujitsu Group undertakes a number of activities aimed at protecting urban woodlands in places like natural parks and greenbelt preservation areas.

Case Study

Shishitsuka Satoyama Preservation Program

The Fujitsu Group, with the cooperation of people from The Society of Nature and History of Shishitsuka, participates in programs to preserve Shishitsuka Satoyama in Tsuchiura City, Ibaraki Prefecture. On July 2, 2011, as part of an effort to revive the Satoyama wetlands, a number of giant pussy willows (salix chaenomeloides) were cut down, since their fallen vegetation can accumulate and cause the wetlands to shrink. Canada Goldenrod, a non-native grass which grows to about the height of a child, was also uprooted, as it is fast-growing and can eventually fill an entire wetland.

Shishitsuka Satoyama Preservation Program

Case Study

Honey Smile Project

In FY 2011, Fujitsu Coworco Ltd. began its Honey Smile Project, aimed at addressing the falling honeybee population by increasing the number of cultured bee colonies while giving due consideration to biodiversity. This project involves growing milkvetch and other flowers which provide important sources of nectar needed by honeybees for pollination, building and placing hives adjacent to the plantings. Through this effort, honeybees carry the pollen back to the hive, while also helping to pollinate the flowers. The fruits and seeds that result become food for small animals, and their droppings then provide nutrition for a wide variety of plants and animals, creating a cycle of life that repeats and forms an ecosystem. Our abundant lives are made possible by the bounty of nature, and as part of its role as a corporate citizen, Fujitsu will continue to contribute to society through these kinds of activities.

Fujitsu Coworco Ltd. Honey Smile Project

Case Study

Volunteer Efforts to Learn About Regional Environmental Issues

In March 2012, the Sydney office of Fujitsu Australia and New Zealand (FANZ) participated in a volunteer environmental project on Goat Island, near the center of Sydney. Landcare Australia, an NPO, called for participation in this environmental preservation program, which aimed to return Goat Island to its pre-exploration state by restoring the natural landscape and repairing facilities on the island. Participation in the project has led to a greater awareness of environmental issues among FANZ employees. One commented, "I learned a lot about the environmental problems that threaten our world today," while another noted that "By participating in this program in our own community, I learned about the local environment, and it was a great opportunity to deepen my understanding."

Environmental Education and Enlightenment Training Outside the Fujitsu Group

Environmental Education for the Next Generation

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 2011, we gave lessons at 49 locations, including elementary schools, junior and senior high schools, and community centers, for 3,143 people. Lessons touched on topics such as the "PC 3R" exercise (in which students learn about 3R while dismantling a PC), the My Earth card game (in which students study global environmental problems), and how electricity is produced and ways to measure when it is being wasted.

Also, to respond to the demand for more of these lessons, we held an instructor development course in FY 2011 in which a further 3 Fujitsu Group employees learned how to deliver the lessons in the Kansai area. As of April 2012, 85 instructors are providing these environmental lessons at locations throughout Japan.

On-Site Environmental Classes in FY 2011

Class Theme	Classes Given	Participants
PC 3R exercise (learning about 3R while dismantling a PC)	41	2,684
My Earth (card game that teaches about global environmental problems)	6	261
How electricity is produced and how to measure when it is wasted	2	198
Total	49	3,143

Tadonaka Elementary School in Kuwana City, Mie Prefecture (PC recycling)

Ochiai Junior High School in Shinjuku-ku, Tokyo (PC dismantling)

Hachioji Miyakami Elementary School in Hachioji City, Tokyo (My Earth)

Kawasaki Science Challenge in Kawasaki City, Kanagawa Prefecture

Case Study

Environmental Summer School (Fujitsu Kasei Limited)

Fujitsu Kasei holds an environmental summer school program focused on the theme of learning the secrets of recycling by disassembling computers.

The aim of the program is to deepen the students' understanding of environmental issues as they disassemble personal computers, and to provide an opportunity for them to think about, and act on, things they can do in their everyday lives to benefit the environment. Since FY 2010, the program has been held for students in elementary school grades four through six in Sagamihara, Kanagawa Prefecture. The program held on August 11, 2011, saw 26 local children participate.

Fujitsu Receives Certificate of Appreciation from the Forestry Agency for its "Birdie for Green" Project in Support of Reforestation and Recovery from the Great East Japan Earthquake

The "Birdie for Green"*1 program is a reforestation and biodiversity preservation effort promoted through the Fujitsu Ladies golf tournament, part of the Ladies Professional Golf tour.

As part of efforts to support the recovery of regions affected by the Great East Japan Earthquake, the 2011 Fujitsu Ladies golf tournament made a donation to the Great East Japan Earthquake Recovery and Reforestation project of the National Land Afforestation Promotion Organization, a public interest corporation. Fujitsu was presented with a certificate of appreciation from the Director General of the Forestry Agency in recognition of this donation.

At the presentation ceremony, Yoshitsugu Minakawa, Director General of the Forestry Agency, presented the certificate of appreciation to Fujitsu Senior Executive Vice President Masami Fujita, and encouraged further efforts, noting that he expects much of Fujitsu through its reforestation-based environmental preservation activities.

Photo commemorating the certificate

Photo of the certificate

*1 Birdie for Green :
An environmental preservation initiative of the Fujitsu Ladies golf tournament, in which the number of saplings to be donated is calculated based on player performance, with an equivalent amount of money donated for forest restoration and conservation of biodiversity. In 2009 and 2010, reforestation and maintenance work was done in the Fujitsu Ladies' Forest, located on the island of Borneo in Malaysia.

Environmental Management

We are continuously working to improve our ISO 14001[*1](#)-based environmental management systems and to promote group-wide environmental management

*1 ISO:
Environmental Management Systems (EMS) standard determined by the International Organization for Standardization (ISO). Certification is granted to environmentally aware organizations that develop systems for ongoing reductions in their environmental footprint.

Fujitsu Group's Environmental Management Systems

Fujitsu has constructed environmental management systems (EMS) based on the ISO 14001 international standard and is promoting environmental improvement activities across the Group. After acquiring ISO 14001 certification for Japanese consolidated subsidiaries at the end of FY 2004, we expanded this effort to include overseas subsidiaries and acquired global integrated certification in FY 2005.

By constructing EMS along with a global supply chain, Fujitsu has further strengthened its global governance. This also allows Fujitsu to promote even more efficient and highly effective environmental activities; not only grasping our achievement status for 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, environmental communication and preservation activities, and conducting management reviews.

EMS Implementation and Operational Status

As of the end of FY 2011, Fujitsu has 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.

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, and other areas. The other 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 Advanced 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 advanced technologies that will boost the efficiency of ICT products and improve the environmental load reduction effects of solutions.

The Environmental Committee's deliberations are also 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
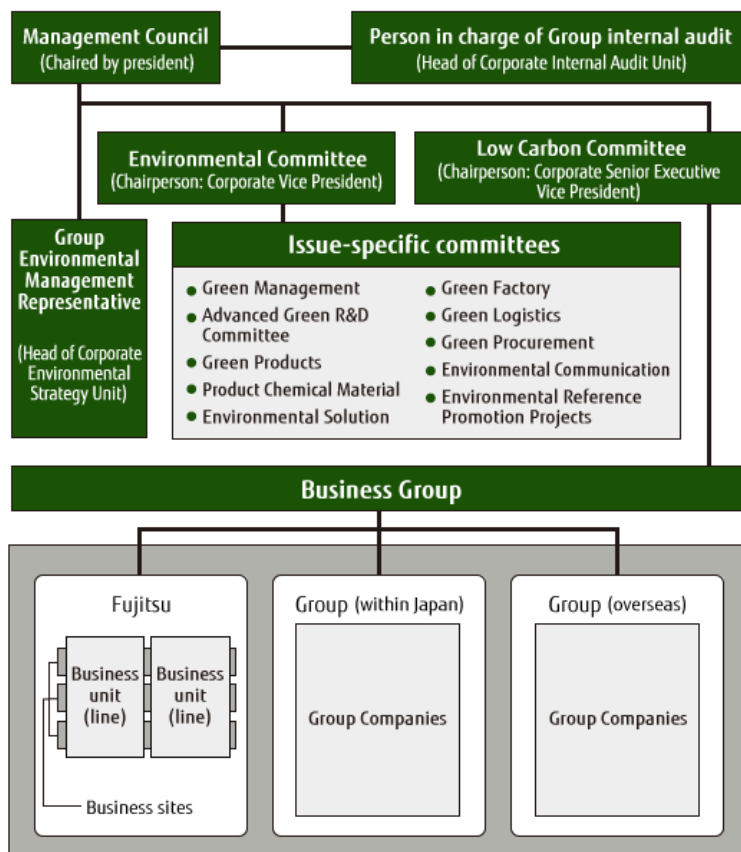
Activity Flow

The Environmental Committee is the highest body for proposing, deliberating, and deciding upon environmental matters relating to all Group companies. The committee's main duties are to discuss the Fujitsu Group's environmental policies and the environmental objectives of all Group companies, and check on the status and results of environmental management activities, making corrections if necessary.

The issue-specific committees are subcommittees set up by the Environmental Committee to make a dedicated response to specific issues. Their main role is to discuss targets for the Environmental Protection Program, check on the progress being made for each target and promote further activity toward achieving them. Issue-specific committees' progress reports are approved and directed by the Environmental Committee.


Action Implementation Flow
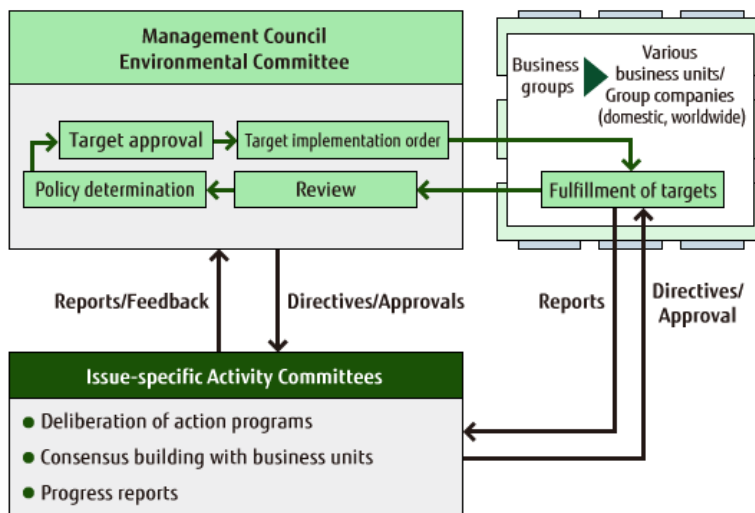
Management Based on the Line/Site Matrix Structure

The Fujitsu Group carries out its environmental management along the same framework lines as its corporate management. To this end, we are pursuing environmental management within a matrix structure combining (1) "line activities" directly tied to the business operations of various divisions and companies (including Super Green Product development and the development and sales expansion of Environmentally Conscious Solutions) and (2) "site activities" to tackle common themes affecting each factory or business location (such as energy conservation and waste reduction).

In this way, along with minimizing the environmental burden of our own business activities, we promote reductions in environmental burdens more generally through the sale of our products and services.
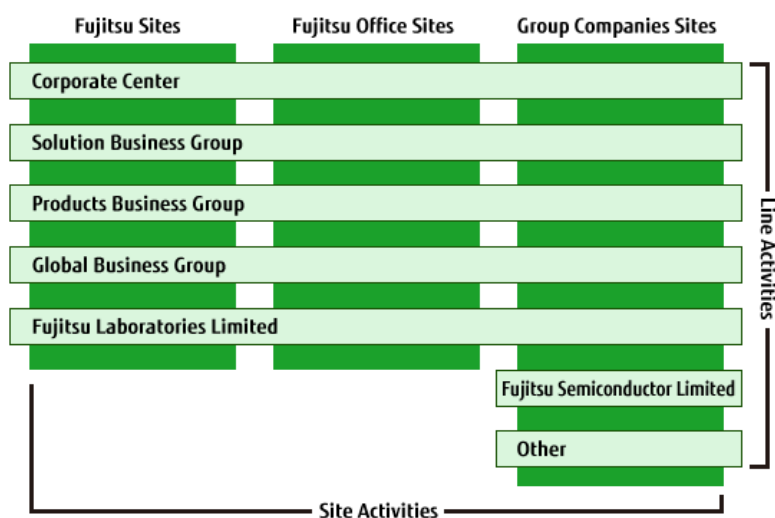
Case Study

Banksia Environmental Award Won by Fujitsu Australia and New Zealand

In November 2011, Fujitsu Australia and New Zealand (FANZ), a leading provider of green ICT solutions in Australia, won the "Banksia Environmental Award for Leading in Sustainability - Setting the Standard for Large Organizations" award, widely considered Australia's most prestigious environmental award. In bestowing this honor, the Banksia Environmental Foundation has acknowledged FANZ's contribution to sustainability over the years. Established as an NPO in 1989, the foundation promotes awareness of the importance of the environment and sustainability through its awards and related activities. The award judges commented that: "This was an extremely impressive entry, with compelling evidence that supports the integration of sustainability principles into the corporate culture. The breadth and scale of the FANZ program is comprehensive with results being reflected both internally and externally. FANZ has strong environmental credentials with the potential to influence significant energy and greenhouse gas reduction with customers."

Continuous Improvements to Environmental Management Systems

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 Fujitsu to consolidate a wide variety of information such as plans, 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. We also utilize a Web-based conferencing system, a global communications platform being promoted throughout Fujitsu, for remote communication in EMS operations.

Efforts to Improve Environmental Performance

Fujitsu has been working on creating a system to evaluate the status of target achievement, compliance and operating management to improve environmental performance at factories.

We continuously make efforts to strengthen environmental governance by promoting the Fujitsu Group 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 2011, we carried out internal audits for factories, offices, and other facilities at 449 locations both in Japan and overseas from June to December 2011. For this audit, we scrutinized the trends and results with the FY 2010 internal audit and the external audit and found four major points to be focused on: (1) adherence to compliance, (2) the status of efforts for the Fujitsu Group Environmental Protection Program (Stage VI), (3) the setting of environmental targets linked to our core business, and (4) human resources development plans and implementation status. Also, we continuously implement mutual audits between different sites and 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 347 indicated matters, of which none were classified as major, 25 as minor, and 322 were observations.

The number of indicated matters decreased by 62 from the previous year. In terms of content, 55% involved adherence to compliance, operational control, and environmental objectives and targets. The matters concerning compliance with various laws involved industrial waste. Matters related to operational control involved failure to fully implement, or a lack of in some cases, voluntary rules. Matters related to environmental objectives and targets involved inconsistencies with upper-level policy.

External Audit and Results

In FY 2011 an external audit was carried out from September 2011 through January 2012. In Japan, we were audited by the Japan Audit and Certification Organization for Environment and Quality (JACO). JACO identified no matters for the Fujitsu Group as a whole. In addition, JACO made 77 observations for individual Group companies. Outside Japan, we were audited by DNV BUSINESS ASSURANCE JAPAN K.K. DNV also identified no matters for the Fujitsu Group as a whole, but they identified 16 minor matters and 41 observations. We have completed remedying these matters as of the end of FY 2011. Audit findings were shared throughout the Group, and we are confirming the status of these matters in the FY 2012 internal audit. ISO 14001 recertification, conducted every three years, also took place in FY 2011. Recertification was granted in March 2012.

Fujitsu started discussions with audit organizations in September 2008 about the introduction of an Environmental Performance Evaluation (ISO 14031) in our internal audit to improve the quality of our environmental activities. In FY 2011, this performance evaluation was applied on a trial basis at 13 production sites, and in FY 2012 will be extended to major manufacturing Group companies in Japan.

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 2011, there were14 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 (1) violations related to solid waste processing manifests or outsourcing contracts, or (2) water quality standard values being exceeded (BOD*2 excess in factory effluents).

Going forward, Fujitsu will strengthen reeducation efforts and its monitoring structure pertaining to solid waste to avoid any possible legal violations. In parallel, we will increase the number of official inspectors. Efforts around water quality will also be standardized, resulting in stricter voluntary targets at more business sites.

*2 BOD:
Biochemical oxygen demand.

Environmental Management Information Systems

To improve the efficiency and visibility of environmental management, the Fujitsu Group makes aggressive use of unique environmental management tools that take full advantage if ICT.

Use of the Global Environment Database System

The Fujitsu Group uses the Global Environment Database System (GEDS) to collect the environmental burden (performance) information for the Fujitsu Group companies and business sites worldwide and to manage plans, results, and policy information uniformly.
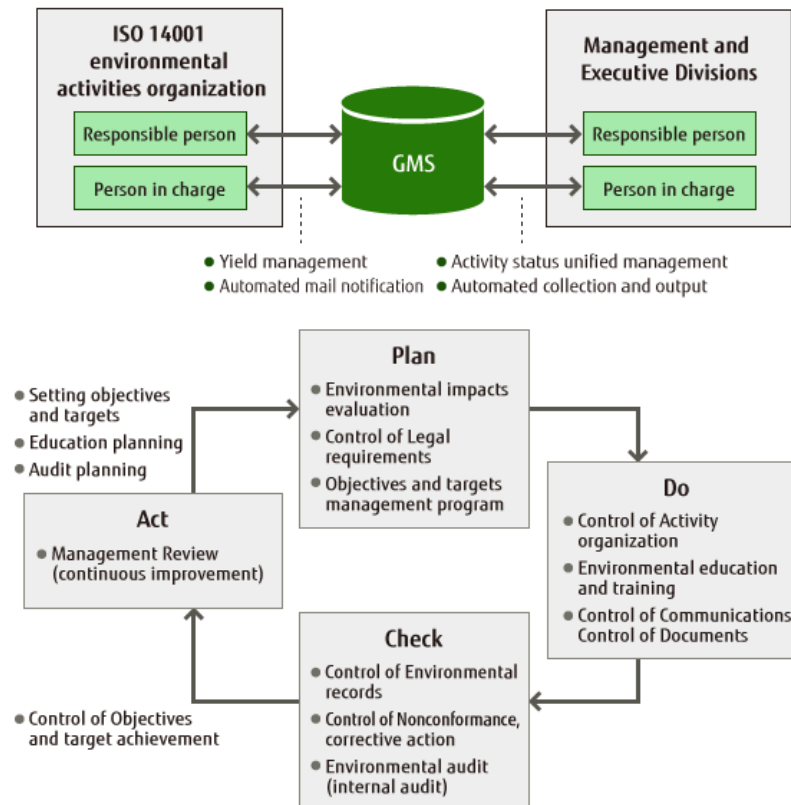
Global Environment Database System
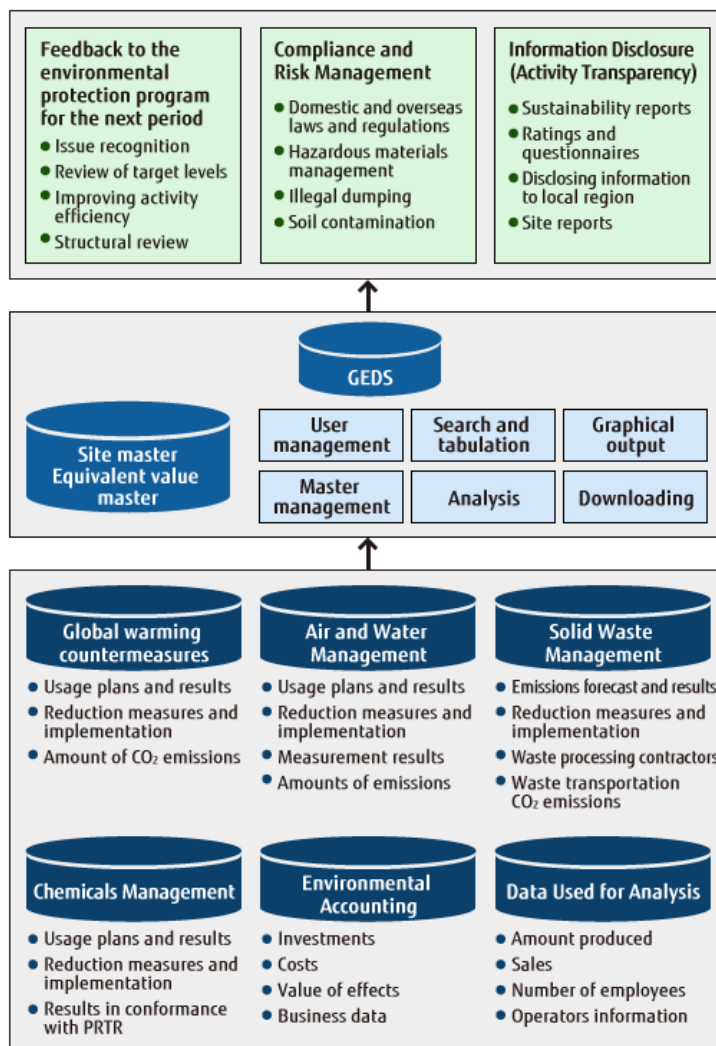
Use of the ISO 14001 Green Management System

The ISO 14001 Green Management System (GMS) is used to exercise unified control over the operational status of the EMS, and to monitor the situation involving improvements to, and legal compliance with, nonconformance issues notified at environmental audits; communications activities; direct and indirect effects and risk/countermeasure levels identified in environmental impact assessments; the setting of environmental management goals and objectives; and the implementation of the environmental management program itself.

This enables corrective measures and objectives to be soundly managed, and effectively ensures continual improvement of the activities with reduced risks.

ISO 14001 Green Management System

ISO 14001 environmental activities organization
- Responsible person
- Person in charge

GMS

Management and Executive Divisions
- Responsible person
- Person in charge

- Yield management
- Automated mail notification
- Activity status unified management
- Automated collection and output

Plan
- Environmental impacts evaluation
- Control of Legal requirements
- Objectives and targets management program

Do
- Control of Activity organization
- Environmental education and training
- Control of Communications Control of Documents

Check
- Control of Environmental records
- Control of Nonconformance, corrective action
- Environmental audit (internal audit)

Act
- Management Review (continuous improvement)

- Setting objectives and targets
- Education planning
- Audit planning

- Control of Objectives and target achievement

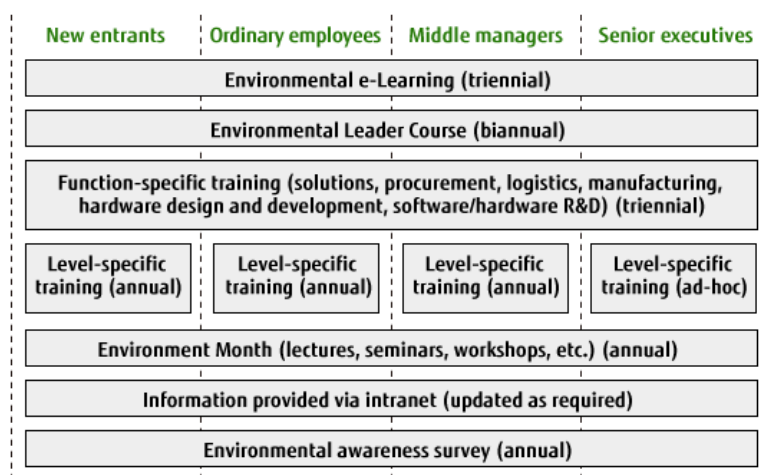# In-House Educational and Enlightenment Activities

The Fujitsu Group is implementing a wide range of environmental education and enlightenment efforts for employees in all divisions.

Our Environmental Education System

To ensure that our environmental activities take firm root through the participation of all employees, 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. Based on this belief, 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 employees at each level, including 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), software development, procurement, logistics, manufacturing, hardware design and development, and hardware and software R&D. 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 training (solutions, procurement, logistics, manufacturing, hardware design and development, software/hardware R&D) (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)			

Environmental e-Learning for All Group Employees

At the same time as promoting proactive efforts for environmental protection activities by every one of our employees in our main business, in 2010 we also implemented an environmental e-Learning program for all Group employees to support the implementation of environmental protection activities that conform to the ISO 14001 international standard as well as informing of, making understood, and implementing the Fujitsu Group Environmental Protection Program (Stage VI).

The Basic Course, in which all Group employees participate, is available in 11 languages. Through it, employees learn about the Fujitsu Group Biodiversity Action Principles and the Group's efforts in the area of biodiversity conservation. In addition to the Basic Course, we have also implemented six other function-specific courses to encourage employees to engage in environmental actions appropriate to their duties as well as biodiversity conservation activities based on the Fujitsu Group Biodiversity Guidelines.

Environmental e-Learning program screenshot

Note that by implementing this education in an e-Learning format, we calculate that this will also have the effect of reducing CO2 emissions by about 6,500 tons compared to earlier concentrated education formats.

Overview of Environmental e-Learning

1. Objective

- Publicizing, understanding, and practicing the Fujitsu Group Environmental Protection Program (Stage VI)

- Encouraging every employee to make proactive efforts toward environmental protection in the course of their own work

2. Targets and Content

The program is composed of the Basic Course, in which all employees worldwide participate, and six function-specific courses. Tests are implemented after the courses to determine how well employees have understood the material, and courses are completed by earning a certain number of points on that test.

Target participants for the Basic Course: All employees and executives of Fujitsu Group at home and abroad

The course covers the relationship between our daily lives and global environmental issues, what each of us can do at work or in our day-to-day lives, trends in global environmental issues and the Fujitsu Group's efforts to address environmental issues including the Fujitsu Group Environmental Protection Program (Stage VI) and other activities, and contributions to building a society in which conserving biodiversity becomes a reality.

Target participants for the function-specific courses: All employees and executives of the Fujitsu Group in Japan

1. Solutions Course: Domestic sales and SE divisions, software development divisions
   Looks at providing green ICT that contributes to our customers and society, green solutions, promoting recycling of ICT products, etc.

2. Procurement Course: Domestic procurement divisions
   Reduction of CO_2 emissions in cooperation with suppliers, biodiversity conservation activities, etc.

3. Logistics Course: Domestic logistics divisions
   Reduction of CO_2 emissions in the distribution and transport process, lessening of the impact of distribution and transport on biodiversity, etc.

4. Manufacturing Course: Domestic manufacturing divisions
   Approaches and points to focus on in lessening the environmental impact of manufacturing plants (greenhouse gases, chemical substances, waste materials) and in working to lessen their burden on the environment

5. Hardware Design and Development Course: Domestic design and development divisions
   Contributing to customers through environmentally friendly product design, lessening the impact of design and development on biodiversity, etc.

6. Software/Hardware R&D Course: Domestic software/hardware R&D divisions
   Introducing an environmental perspective to the R&D process

3. Schedule / Method of Implementation

- June to December, 2010

- Using the Fujitsu Group's common learning platform "Fujitsu NetCampus," the program was rolled out successively across each company. Progress and results are managed using Fujitsu's "Internet Navigware."

Overview of Environmental e-Learning

Employees	
Domestic	
(Fujitsu)	25,000
(All Group companies)	75,000
Overseas	70,000
Total	170,000

Basic Course (30 minutes)

Function-Specific Course (10 minutes)	Targeted Divisions
Solutions Course	Sales & SE Software Development
Procurement Course	Procurement
Logistics Course	Logistics
Manufacturing Course	Manufacturing
Hardware Design & Development Course	Hardware Design & Development
Software/Hardware R&D Course	Software/Hardware R&D

Newly established courses

Environmental Education for Engineers

The Fujitsu Group carries out a range of environmentally related education, such as equipment-dismantling training for engineers and tours of recycling centers for members of the Sales Division

Promoting Awareness Through Environment Month

The Fujitsu Group holds a number of events to raise environmental awareness among our employees in conjunction with Environment Month (June), which is sponsored by Japan's Ministry of the Environment.

Development of Environmental Learning Materials

In order to share with the outside world the environmental education expertise it has developed for its employees, Fujitsu has teamed up with Fujitsu FOM Limited to create a set of learning materials for environmental education entitled "Global Environmental Issue Keywords," and has been marketing them since May 2008 in the form of books and e-learning materials.

Global Environmental Issue Keywords book and e-Learning screenshot display

The program incorporates a broad spectrum of issues, including basic knowledge of global environmental issues, the environmental business of other companies, and ICT's contribution to the environment, all from the viewpoint of providing a broad understanding not only to those involved in environment-related businesses, but to all employees in the Fujitsu Group.

In-House Award Scheme

Fujitsu presents awards recognizing outstanding Group environmental preservation efforts.

Environmental Contribution Award and Environment Contest

To raise the environmental awareness of employees at all Fujitsu Group companies, we have operated an Environmental Contribution Awards scheme and an Environmental Contest, open to all employees, every year since 1995. Since FY 2002, Fujitsu's president has presented the top Environmental Contribution Award at the Company's founding anniversary celebration held in June every year.

In FY 2011, The top Environmental Contribution Awards were for the introduction of a system for utilizing geothermal heat at the Nagano Plant, an initiative promoting biodiversity conservation through use of multi-sensing networks, and an energy-saving initiative. In the Environmental Contest, the top award went to the project noted below, with awards also going to another 25 proposals selected from among those submitted by Group companies around the world.

Environmental Contest 1st prize - Fujitsu Sponsors a Play Pump

Special Environmental Award

Since FY 2008, the Fujitsu Group has offered a Special Environment Award program, intended to encourage Group sales and SE teams to promote the use of ICT solutions in helping customers reduce their environmental load.

The program originally focused on visualizing the effects of CO2 reduction through introduction of ICT, and enhancing the solutions business through pursuit of such opportunities. In FY 2011, a new evaluation item was added to assess the ability to achieve customer cost reductions through energy conservation (reductions in electricity consumption). Organizations notable for their activities in these areas were recognized by Fujitsu's president at the Company's April 2012 Solutions Business Expansion Conference.

Awards ceremony

Commemorative photo

Environmental Communication

The Fujitsu Group is committed to bidirectional communication with all stakeholders and pursues a variety of different opportunities to this end.

Information Disclosure via Sustainability Reports and the Fujitsu Website

In 1996, the Fujitsu Group began publishing an Environmental Report, focusing on the records and results of environmental protection activities carried out by the Group. The report reflects Fujitsu's commitment to making such information publicly available, thereby increasing the transparency of the Group's activities. In 2003, social aspects were combined with the Environmental Report for the publication since then of the Fujitsu Group Sustainability Report. The 2011 Fujitsu Group Sustainability Report was awarded the Prize for Excellence in Environmental Reporting as part of the 15th Environmental Communication Awards, sponsored by Japan's Ministry of the Environment and the Global Environmental Forum. The report was recognized for its excellence in disclosing information relating to Fujitsu Group's environmental management strategy and initiatives, as well as its efforts for environmental protection and sustainability. The Environment page of the Fujitsu website, meanwhile, contains the contents of the Sustainability Report, as well as specific details of individual initiatives, and is frequently updated with the latest information.

Site Report Publication

Fujitsu production plants, business sites and Group companies publish environmental reports in an effort to further understanding of their environmental initiatives among local residents and customers.

Events & Seminars

Main Conventions in which Fujitsu Participated in FY 2011

Convention	Location	Date
Japan		
Kumagaya Eco-Life Fair 2011	Kumagaya	May 2011
Interop Tokyo 2011	Chiba	June 2011
The Best 100 Surprising Ecological Items of 2011	Kyoto and Tokyo	August 2011
Tokyo International Conference for Sustainable Future	Tokyo	September 2011
CEATEC JAPAN 2011	Chiba	October 2011
Fujitsu Ladies 2011	Chiba	October 2011
Carbon Offset Matching in Kochi	Kochi	October 2011
Aomori ICT Cloud Festa	Aomori	October 2011
Eco-Life Yamagata	Yamagata	October 2011
Ishikawa Dream Future Expo	Kanazawa	October 2011
The Children's University of Kawagoe, Special Lecture	Kawagoe	November 2011
Eco Products 2011	Tokyo	December 2011
Kawasaki International Eco-Tech Fair 2012	Kanagawa	February 2012
Carbon Market EXPO 2012	Tokyo	March 2012
Overseas		
Japan - China Green Expo 2011	China	June 2011
Green ICT Global Business Promotion 2011	Thailand	August 2011
International Greentech & Eco Products Exhibition & Conference Malaysia 2011	Malaysia	September 2011
ITU TELECOM WORLD 2011	Switzerland	October 2011

Eco-Products 2011 (Tokyo)

Kawasaki International Eco-Tech Fair 2012 (Kawasaki)

Environmental Efforts at Events and Seminars

At the Fujitsu Forum, annual meeting of shareholders and other seminars and events, Fujitsu actively utilizes green electricity as a carbon offset for its electricity usage. Other environmental efforts at such venues include reducing the amount of paper used and utilizing eco-friendly materials.

In FY 2011, Fujitsu purchased a Green Power Certificate for a total of approximately 26,000kWh of electricity.

Environmental Efforts in Catalog Printing

When printing catalogs, Fujitsu utilizes environmentally friendly materials, including certified eco-friendly paper and ink, and ecologically sound printing methods. These efforts help reduce CO2 emissions as well as harmful liquid waste and other printing byproducts.

Communicating with Stakeholders

The Fujitsu Group works to establish proactive communications, as a way of growing together with its stakeholders.

Environmental Dialogues with Stakeholders

Fujitsu conducts environmental dialogues as a means of informing a broad range of stakeholders about Fujitsu Group's environmental activities, improving those activities through mutual dialogue, and building a trusting, cooperative relationship with society.

Dialogues Held in 2012

1st Dialogue : held on March 21, 2012

[Participants]

- Atsuko Suzuki
  Representative Director, Environmental Business Agency

- Hiroki Hondo
  Professor, Graduate School of Environment and Information Sciences, Yokohama National University

- Yumiko Kawamura
  Senior Corporate Officer, Fundraising &Marketing Division, WWF Japan

- Junko Edahiro (Facilitator)
  President, Institute for Studies in Happiness, Economy, and Society

[Opinions]

Atsuko Suzuki

- I think the use of ICT to support activities involving the public are an important initiative. An example is the survey of dandelion distribution using mobile phones.

- My idea of an environmentally progressive company is one that links environmental activities directly with the strengths of its main business. Fujitsu should pursue environmental management that emphasizes the unique aspects of the company.

Hiroki Hondo

- Fujitsu has obviously worked steadily on its activities and has developed a solid framework for them. I think, however, that the company should communicate more about the reasons for its involvement in these activities.

- The Sustainability Report would make more impact on readers if it focused on the key points that Fujitsu really wants to communicate, rather than on simply including every activity.

Yumiko Kawamura

- I am satisfied that Fujitsu is responding sufficiently to environmental concerns, but I think the company could make a greater impact by developing symbolic activities.

- From a communication perspective, it is important to set a clear target and consider what is to be communicated and to whom.

2nd Dialogue: held on April 17, 2012

[Participants]

- Miyako Maekita
  Representative of Sustena

- Yasunari Matsuno
  Associate Professor, Department of Materials Engineering, Graduate school of Engineering,The University of Tokyo

- Kana Yamashita
  Deputy Director, Director, Climate Security Program, Conservation International Japan

- Junko Edahiro (Facilitator)
  President, Institute for Studies in Happiness, Economy, and Society

[Opinions]

Miyako Maekita

- While I believe Fujitsu to be a leader in its environmental activities, the issue remains that its efforts have yet to be apparent in society at large.
- Perhaps you could arrive at more creative initiatives by incorporating the needs of the average consumer in your research.

Yasunari Matsuno

- A company's environmental activities will be short-lived if seen only in terms of their societal benefits. I think Fujitsu's greatest strength lies in its ability to contribute to the environment through its core solutions business.
- Smart grids are one potent solution to global warming and energy issues, and an area I would like to see Fujitsu pursue further.

Kana Yamashita

- I think Fujitsu's efforts to involve even its suppliers in its biodiversity activities represent a progressive initiative.
- That said, I also think Fujitsu is lacking in alliances with NGOs and in building a global viewpoint. There is a need among emerging nations for use of ICT in forest conservation, ecosystem surveys, and agricultural support.

3rd Dialogue: held on June 28, 2012

[Participants]

- Toshihiko Goto
  Chair, Environmental Accounting Research Group
- Seita Emori
  Chief, Climate Risk Assessment Section, Center for Global Environmental Research, National Institute for Environmental Studies
- Rie Asaba
  Chairman of the Board of Directors, NPO Kawaguchi Citizens Environmental Council
- Junko Edahiro (Facilitator)
  President, Institute for Studies in Happiness, Economy, and Society

[Opinions]

Toshihiko Goto

- Fujitsu's efforts in terms of traditional environmental efforts focusing on the company itself are, I think, nearly perfect.
- What society is looking for going forward, however, are efforts that involve the entire value chain. To ensure the company's own environmental management efforts move ahead smoothly, Fujitsu will need to look at the extent to which it can grasp the issues and come up with measures in response.

Seita Emori

- Considered in the long term, I think the Green by ICT initiative holds great potential to transform the systems of society through greater efficiency.
- Fujitsu needs to deliver a message based on a broader perspective, one that addresses how it hopes to change society, and what kind of company it wishes to be.

Rie Asaba

- I now understand how ICT is involved in many aspects of daily life, and how it also ties into benefiting the environment.
- I'd like to see Fujitsu use its delivery of on-site environmental classes to convey how ICT contributes to the environment. By not only simply describing environmental issues, but enabling employees to explain in their own words how the company contributes, Fujitsu can make it easier for children to imagine how they might contribute to the environment in the future.

We will continue to hold these dialogues going forward, putting these views to use in improving our activities. We are also working to deepen our understanding of the social issues involved, and will look at expanding into more specific collaborative efforts.

Cooperation with External Organizations

The Fujitsu Group works to reinforce environmental management through participation in external organizations.

Collaborating with External Groups to Promote Green ICT

The Fujitsu Group is committed to reducing environmental impact on a global scale by promoting widespread use of Green ICT through proactive initiatives with external organizations, including international standardization bodies.

For example, methods for measuring positive environmental impact produced by Fujitsu Group solutions had not been standardized internationally. So Fujitsu took part in the ITC and Climate Change Group (SG5 WP3) of the International Telecommunication Union Telecommunication Standardization Sector (ITU-T), an international standardization body in the electrical and electronics sector. The group's findings were published in March 2012 as the "Methodology for the Assessment of the Environmental Impact of Information and Communication Technology Goods, Networks and Services (L.1410)."[*1] At the national and regional level as well, we serve as chair of the Green IT Promotion Council's Committee of Survey and Analysis in Japan and joint chair of the ICT for Energy Efficiency (ICT4EE) Forum's Working Group 2 in Europe, contributing to the development of more practical methods for assessing environmental impact. These initiatives have made it possible for CO2 reductions produced by ICT to be assessed under an international framework, which is expected to promote further utilization of the technologies.

Further, the Fujitsu Group joins in activities to evaluate the sustainability of our products using internationally recognized methods. For example, the IEC TC 111 committee creates environmental standards for electrical and electronics products, and we are actively involved in the Japanese committee of its Working Group 4, which drafts international standards for calculating greenhouse gas emissions. In addition, for the IEC TC 100 committee, which is responsible for international standards for audio, video and multimedia systems and equipment, Fujitsu serves as technical secretary for TA 13, which is in charge of environmental regulations, and chair of the Japanese committee.

*1:
Ministry of Internal Affairs and Communications of Japan press release (in Japanese)

External Organizations

Green ICT

Promoting and diffusing Green ICT and standardization activities

- Green IT Promotion Council
- ICT4EE

Climate Change

Carrying out proposals to achieve a sustainable low carbon society

- Japan Climate Leaders' Partnership (Japan-CLP)
- ITU and Climate Change, the climate change group of the International Telecommunication Union Telecommunication Standardization Sector (ITU-T)
- International Electrotechnical Commission (IEC)
- Greenhouse Gas Protocol (GHG Protocol)

Biodiversity

Promoting the conservation of biodiversity by corporations

- Business and Biodiversity Initiative
- Japan Business Initiative for Conservation and Sustainable Use of Biodiversity (JBIB)

Product Chemicals and Eco Design

Investigating frameworks to effectively communicate information on chemical substances contained

- The Japan Article Management Promotion Committee (JAMP)
- The Japan Green Procurement Survey Standardization Initiative (JGPSSI)
- Japan Environmental Management Association for Industry (JEMAI)

Environmental and Social Contribution

Promote environmental and social contribution activities

- WWF (World Wide Fund for Nature) Japan
- Nature Conservation Society of Japan (NACS-J)
- Wild Bird Society of Japan
- Japan International Forestry Promotion and Cooperation Center (JIFPRO)

Environmental Communication

Promote environmental communication

- Nippon Environment Club
- Japan for Sustainability (JFS)

Environmental Activities

- Communications and Information Network Association of Japan
- Japan Electronics and Information Technology Industries Association (JEITA)
- KEIDANREN (Japan Business Federation)

etc.

Participation in Environmental Campaigns

Through participation in environmental campaigns, each employee works to protect the environment starting with their everyday spaces and activities.

Participation in the Challenge 25 Campaign

The Fujitsu Group in Japan participates in the Challenge 25 Campaign, which is a nation-wide movement to mitigate global warming-a goal each of our employees supports fully by making efforts to conserve energy at work and in the home.

The 6 Challenges

The Challenge 25 Campaign proposes "6 Challenges." These constitute specific steps toward reducing CO2 emissions and can be performed by anyone in the home or office, etc.

- Challenge 1: Choose an environmentally friendly Lifestyle
- Challenge 2: Choose energy-saving products
- Challenge 3: Choose natural energies
- Challenge 4: Choose environmentally friendly buildings and houses
- Challenge 5: Support activities and products that lead to the reduction of CO2 emissions
- Challenge 6: Participate in community activities to prevent global warming

At the Fujitsu Group, we are proactively working to meet these 6 Challenges.

Air Conditioner Settings

Air conditioners are set to certain temperatures year-round. 28°C in cold weather and 20°C in hot weather.

In the summer, we implement "Cool Biz" dress-code practices and ask that our customers and partners also dress lightly when visiting us. In fiscal 2011, with the implementation of power-conservation measures following the Great East Japan Earthquake, the Fujitsu Group took it one step further, introducing a "Super Cool Biz" casual business dress code between May and October.

Power Conservation Lights-Down Campaign in 2011

Each year, the Fujitsu Group participates in the "CO2 Reduction / Lights-Down Campaign," a global-warming prevention effort launched by Japan's Ministry of the Environment in 2003. This campaign calls for people to turn off lights at landmark facilities and in the home.

In fiscal 2011, lights were turned off on two special days-the day of the summer solstice on June 22 and the Tanabata Festival on July 7, which is also Cool Earth Day. In addition, given the need to conserve energy after the Great East Japan Earthquake, a call went out to turn lights down throughout the day and at night between June 22 and August 31 as part of "Day and Night: Power Conservation Lights-Down 2011."

In support of this objective, on June 22 and July 7, in the two hours between 8 PM and 10 PM, the Fujitsu Group turned off its neon advertising signs and office lighting. Efforts did not end with these two special days, as the Group continued its efforts to curb electricity use by turning off or reducing unnecessary lighting, and implementing other measures to further conserve power.

Fujitsu Integrated Microtechnology

Fujitsu Isotec

Sapporo Systems Laboratory

Green Curtain Project

The Fujitsu Group is working to prevent global warming. As part of that effort, every summer our offices roll out our green curtain project, which works to keep indoor temperatures down by growing plants along exterior walls and windows. In 2011 the green curtain project, which began in 2006, was implemented at 14 Fujitsu Group offices.

The green curtain project involves growing bitter melon, morning glories, gourds, and other vine plants along exterior walls and windows to block the hot sunlight and lower room temperatures by creating shade. Employees can watch the seedlings, which they plant themselves, grow taller each day-a relaxing experience that also teaches them the joys of gardening. Bitter melons are later harvested and distributed to employees free of charge and is also consumed locally in special dishes served at employee cafeterias.

Case Study

Fujitsu Kawasaki Plant

Each year, Fujitsu's Kawasaki Plant work with Kawasaki City and the municipal government of Naka Ward to grow bitter melon as green curtains. This year, 261 employee volunteers carried out the planting and by summer had grown an enormous curtain measuring 4.5m high by 30m wide. 130 of the harvested bitter melons were then distributed to employees free of charge, while more went into some 336 meals served in the employee cafeteria as part of efforts to consume the produce locally.

Fujitsu Kawasaki Plant

Activity dates: May 25 to September 30, 2011
Location: Kawasaki City, Kanagawa Prefecture

Case Study

Fujitsu Akashi Plant

The Akashi Plant began participating in the green curtain project in 2009, so this marks its third year. We have planted a green curtain in the cafeteria, which is used by many employees, in the hopes that it would be relaxing to see indoors while also helping to keep the area cool. The curtain measures $125m^2$ and is capable of absorbing 420kg of CO2.

Activity dates: June 1 to September 30, 2011
Location: Interior of the Akashi Plant, Akashi City, Hyogo Prefecture

Fujitsu Akashi Plant

Fujitsu Oita Systems Laboratory

At the Oita Systems Laboratory between May and September 2011, we implemented a green tunnel project with help from all of our green supporters in the building.

In fiscal 2011, we planted bitter melon and Japanese morning glories. In addition to conserving power by providing shade and through evapotranspiration, of particular note is the relaxing effect of walking through the tunnel. The huge harvest of bitter melons was given to the employees. The Japanese morning glory seeds we harvested were provided to various regions as part of a "morning glory bank" initiative, and will be used to further expand our green curtain movement.

Activity dates: May 23 to mid-September, 2011
Location: Oita City, Oita Prefecture

Fujitsu Oita Systems Laboratory

List of External Awards and External Evaluations

The Fujitsu Group's various initiatives for developing a sustainable society have been highly appraised by external observers.

(As of June 2012)

Major External Awards and Evaluations Received by the Fujitsu Group and Its Employees

Recognition	Date	Sponsor(s)	Initiative
21st Century Achievement Award, Environmental Category	June 2012	Computerworld	Response to the Great East Japan Earthquak
Social and Environmental Green Evaluation System(SEGES), Superlative Stage	April 2012	Organization for Landscape and Urban Green Infrastructure	Fujitsu Numazu plant's greening activities
15th Environmental Communication Awards Recipient of Prize for Excellence in Environmental Reporting	February 2012	Japan's Ministry of the Environment and Global Environmental Forum	2011 Fujitsu Group Sustainability Report
Kawasaki Environmental Show-Window Award	February 2012	Kawasaki City, Kanagawa Prefecture	Introduction of environmental reference model
Low CO2 Kawasaki Pilot Brand '11	February 2012	Kawasaki City, Kanagawa Prefecture	ESPRIMO D570/B enterprise desktop PC and proximity sensor-equipped VL-178SRL ECO Plus display
2nd Kanagawa Global Warming Prevention Awards for its development of technology to reduce greenhouse gas emissions	February 2012	Kanagawa Prefecture	Development of energy-saving PC server
2nd Kanagawa Global Warming Prevention Awards for itsaccomplishments in reducing greenhouse gas emissions	February 2012	Kanagawa Prefecture	Construction of Fujitsu FIP Corporation's Yokohama Data Center
Ranked 10th in the 15th Nikkei Environmental Management Survey	January 2012	Nikkei Inc.	Environmental measures and environmental management initiatives
Banksia Environmental Award for Leading in Sustainability-Setting the Standard for Large organizations	November 2011	Banksia Environmental Foundation	Long running contribution to sustainability by Fujitsu Australia New Zealand (FANZ)
Ranked 1st in the Top 12 Green-IT Vendors list	October 2011	Computerworld	For reducing energy consumption and introducing technology to conserve energy and lower carbon emissions in ICT equipment as a "green-IT vendor"
Ranked 13th in Newsweek Green Rankings 2011	October 2011	Newsweek	For consideration of corporate environmental impact, environmental management and information disclosure policies
Second Contest of Corporate Ikimono-Nigiwai (Biodiversity) Activities Special Recognition Award	October 2011	Contest for Corporate Ikimono-Nigiwai (Biodiversity) Activities Organizing Committee	Fujitsu Group Malaysia Eco-Forest Park (Activities to regenerate tropical rainforests in Borneo, Malaysia, aiming to conserve biodiversity)
Green-IT Award 2011 Review Board Special Award in the category of "Savings in Society's Energy Consumption by IT"	October 2011	Green IT Promotion Council	Creation of "EcoCALC" eco-contribution estimation web tool and pro-active usage across the Group aimed at realizing an energy-saving society
FY 2010 Environmental goo Grand Prize Incentive Award, Business Division	May 2011	NTT Resonant Inc.	Environmental activities by Fujitsu (environmental website)

Embracing Diversity and Inclusion Environment to the Next Generation

The Fujitsu Group wants each employee to grow in step with the development of the organization itself, and we embrace and leverage diverse human resources to this end.
Our goal is to create a climate where employees respect each other, put their unique added value into play, and form new knowledge and skills through open discussions from multiple perspectives.

Diversity and Inclusion

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 Fujitsu.

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 value, realize coexistence and mutual prosperity with society, and develop Fujitsu into an even better company.

FY 2011 Overview and Key Issues

In FY 2011, we entered the "understanding and practice" phase of diversity promotion activities. Fujitsu positions diversity as a management imperative, and pursues ongoing and wide-ranging initiatives. For instance, we held a companywide Diversity Promotion Forum where the president gave a keynote speech and panel discussions between four vice presidents and experts were held. We also took three new steps in FY 2011, inspired by what we have learned so far from companywide e-learning and various other activities, including working group on diversity.

Diversity Promotion Office
Noriko Shiono, General Manager

The first was diversity promotion in the workplace. This saw the selection of managers (around 150) for this purpose at the business unit level, with several presentations and study sessions sponsored to support promotion activities in their workplaces.

The second was to initiate positive action to achieve the numerical targets set for 2020 with respect to active participation by female employees. This included selective training for female employees and other activities.

Company-wide diversity promotion forum

The third was to expand the promotion of diversity efforts to Fujitsu Group companies in Japan. This entailed presentations and other meetings held specifically for Group companies, along with the sharing of Fujitsu's approach to diversity promotion and its vision in this area. Group companies assessed current diversity promotion status, analyzed the issues identified, and moved to implement needed measures.

The third was to expand the promotion of diversity efforts to Fujitsu Group companies in Japan. This entailed presentations and other meetings held specifically for Group companies, along with the sharing of Fujitsu's approach to diversity promotion and its vision in this area. Group companies assessed current diversity promotion status, analyzed the issues identified, and moved to implement needed measures.

From FY 2012, we intend to continue efforts to gain a better view of the situation in the workplace, as we vigorously pursue promotion activities.

Diversity Targets and Results

	Period	Target	Key Measures
1	2008-2010: Awareness and Understanding	• Foster awareness and understanding of diversity promotion among all corporate officers and employees	• Conduct surveys of employee awareness of diversity • Implement e-learning programs, build human networks for female, disabled, and foreign employees
2	2011-2013: Understanding and Practice	• Promote workplace diversity • Support more active participation by female employees • Promote measures among Group companies in Japan	• Select managers to represent the diversity promotion in business units • Set long-term target values (2020) for the presence of female employees in the Company and implement relevant training as strategic move for the future • Hold briefings for domestic Group companies
3	From 2014: Practice and Business Contribution	• Promote measures among domestic and overseas Group companies • Generate new business and increase productivity by practicing diversity and inclusion	Formulate additional measures based on the track record through FY 2013

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

Company-wide diversity promotion forum

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. A number of different level-specific training sessions for executives and managers have also been held. At the end of FY 2010, we conducted an e-learning program open to all executives, regular and temp employees called "Striving for Workplaces Where Everyone Can Thrive," designed to put diversity promotion into practice in the workplace.

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.

- **Support workplace activities designed to promote diversity**
  Select managers to represent diversity promotion in business divisions and hold multiple presentations and study sessions.

- **Support active participation by female employees**
  Set long-term target values (2020) for female employees in the Company and implement relevant training as strategic move for the future

- **Promote measures among Group companies in Japan**
  Assess diversity promotion and consider measures in each domestic Group company by sharing FUJITSU's approach and vision for diversity and inclusion in some briefings.

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 relevant workplace, management level, personnel situation, 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 encourage them to review their careers and envision their future career path. 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 enhance job satisfaction, we are sponsoring 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 the personal and career development of our female employees from a different standpoint than their immediate supervisors.

Note that we use the same recruitment standards regardless of gender with respect to promotion of managers.

Trends in Women Managers (Fujitsu Limited)

(%)				
2.4	2.9	3.1	3.5	3.7
2007	2008	2009	2010	2011 (FY)
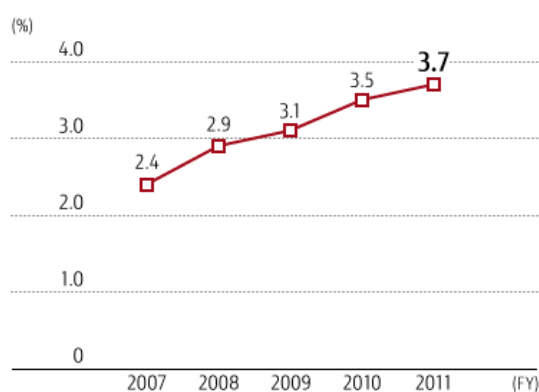
| Positive Action for Female Employees (from FY 2011)

Female Leadership Development Program

Fujitsu has initiated the Female Leadership Development Program, designed to support long-term career furtherance by its female employees. Through the program, Fujitsu is developing human resources to serve in leadership roles, while grooming future management staff.

Scene from the Female Leadership Development Program

Open to members selected by each division, this roughly year-long program seeks to boost awareness of career options and develop managerial skills through intensive classes centered mainly on team activities, coupled with on-the-job training. At the end of the program, each team offers its own suggestions to management. To enhance effectiveness, the program is conducted in coordination with key staff members from worksites, management, personnel, the Diversity Promotion Office, and Fujitsu University, who all work together for the program's success.

Workshop for Female Managers

Offered to female managers across Fujitsu and at Group companies, the purpose of this workshop is to groom high-level managers for the future. Designed to enhance both perspective and awareness in participants, the workshop centers on classes and team activities that encourage participants to redefine and review their individual career models and skill sets. At the close of this approximately three-month program, participant teams offer suggestions to Fujitsu management.

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 initial 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 disability they may have. Moreover, we publicize on our intranet role models and manuals for workplaces that can accept disabled employees.

As a result, the percentage of people with disabilities employed by the Fujitsu in FY 2011 was 2.05%, exceeding rate of 1.8% mandated by law.

Trend in Employment Rate of People with Disabilities (Fujitsu Limited)

FY	2007	2008	2009	2010	2011
(%)	1.92	1.81	1.90	2.01	2.05

VOICE: Feedback from Employees

Active participation by employees with lower-limb disabilities

During my job interview, I was never asked about my disability. The questions I was asked instead were, "What sort of work do you want to do for Fujitsu?" and "What kind of support would you need to make that happen?" Those questions made a huge impression on me. More importantly, this stance as a company hasn't changed at all since I joined. As long as I can explain myself logically to my supervisors and senior colleagues, they have been willing to entrust more and more jobs to me. I go on business trips, and when I do overtime its often unsupervised.

My department handles products that support social infrastructure. I have a strong sense of responsibility as a member of that team, and hope to always stay mindful in my job of my own growth and that of my team colleagues.

Product Planning Department Enterprise Server Business Division Rumi Nagashima

Recruitment of Global Talent

With sights on global business expansion, Fujitsu takes part in career forums in and outside Japan geared to foreign students, as well as holding its own seminars and accepting university students from abroad for internships. Through these and other actions, Fujitsu is increasing its recruitment of foreign nationals studying in Japan and university graduates from other countries to greater levels than ever before.

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 2011, we held two 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.

Trends in Numbers and Average Ages of Employees
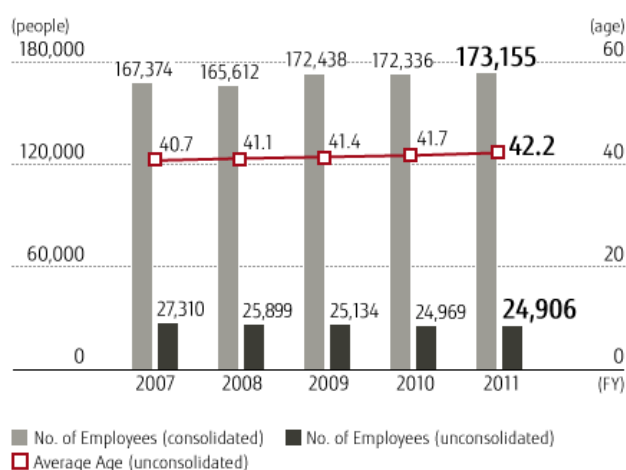
Employees by Region (unit: 000)
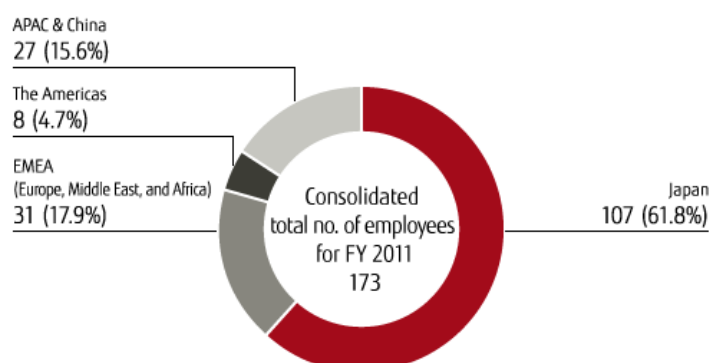
Creating a Workplace Environment in which Older Workers Can Thrive

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.

Efforts Promoting Respect for Human Rights

Respecting 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. 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.

Furthermore, in accordance with our commitment to the UN Global Compact in 2009, we will continue to move forward with management that places a high priority on human rights.

FUJITSU Guiding Principles of Respect for Human Rights in Employment (Full Text)

> With a view to realizing our growth and profits, respect for human rights must be an integral part of our business culture. FUJITSU is committed to creating a culture in which employees respect the dignity and worth of individuals.
>
> To this end, FUJITSU will strive to foster respect for human rights in all the countries and regions where we operate our business while providing an environment that encourages employees to understand and realize importance of human rights.
>
> 1. **Equal Employment Opportunity and Respect for Human Rights**
>   FUJITSU strives to provide equal employment opportunities.
>   FUJITSU is committed to treat our employees with no illegal discrimination based on race, color, religion, creed, sex, social status, lineage, physical or mental disability, sexual orientation and any other legally protected category that is unrelated to the legitimate interests of FUJITSU.
> 2. **Compliance with Employment Laws and Regulations**
>   FUJITSU adheres to the applicable laws and regulations of the countries and regions in which it operates in treating our employees.
> 3. **Prohibition of Forced Labor / Child Labor**
>   FUJITSU will not use any form of forced or compulsory labor.
>   FUJITSU will not use child labor.
> 4. **Work Environment**
>   FUJITSU strives to achieve and maintain a healthy and safe work environment that motivates its employees.
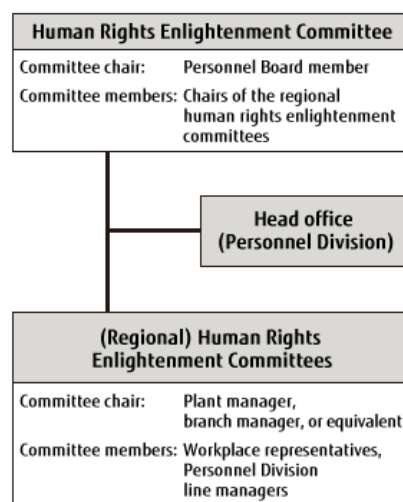
Promoting Human Rights Enlightenment

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 from the previous structure centered on the personnel and general affairs divisions to a new structure in which they are mainly managed by regional workplace representatives. Through this change, we are now able to more fully reflect the opinions of employees in the Human Rights Enlightenment Committees of each region. The Human Rights Enlightenment Committee stipulates company-wide critical themes for the fiscal year reflecting the workplace situations summarized by these regional committees. Through the regional committees, we strive to instill these themes throughout all divisions and workplaces.

On a year-round basis, the Human Rights Enlightenment Committee takes up a variety of human rights issues, such as discrimination and harassment in the workplace, and implements human rights enlightenment training for specific hierarchies or for all employees. Furthermore, in conjunction with Human Rights Week every December, we work towards fostering an environment in which everyone - employees and their families - can discuss human rights not just in the workplace but also at home by, for example, putting up posters on preventing sexual harassment, inviting employees and their families to come up with slogans on human rights promotion and rewarding them, and distributing human rights promotional leaflets.

Human Rights Enlightenment Structure

```
┌─────────────────────────────────────────────┐
│   Human Rights Enlightenment Committee        │
├─────────────────────────────────────────────┤
│ Committee chair:   Personnel Board member     │
│ Committee members: Chairs of the regional     │
│                    human rights enlightenment │
│                    committees                 │
└─────────────────────────────────────────────┘
                    │
                    │        ┌──────────────────────┐
                    ├────────│   Head office         │
                    │        │  (Personnel Division) │
                    │        └──────────────────────┘
┌─────────────────────────────────────────────┐
│        (Regional) Human Rights                │
│        Enlightenment Committees               │
├─────────────────────────────────────────────┤
│ Committee chair:   Plant manager,             │
│                    branch manager, or equivalent│
│ Committee members: Workplace representatives, │
│                    Personnel Division         │
│                    line managers              │
└─────────────────────────────────────────────┘
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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

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.

- In FY 2011, the average length of employment was 18.8 years for men and 16.4 years for women.

Transition in Number of Employees Hired (Unconsolidated)

(people)	2007	2008	2009	2010	2011
Newly-graduated from College	585	585	440	540	540
Experienced Professionals	152	124	14	66	60

(FY)
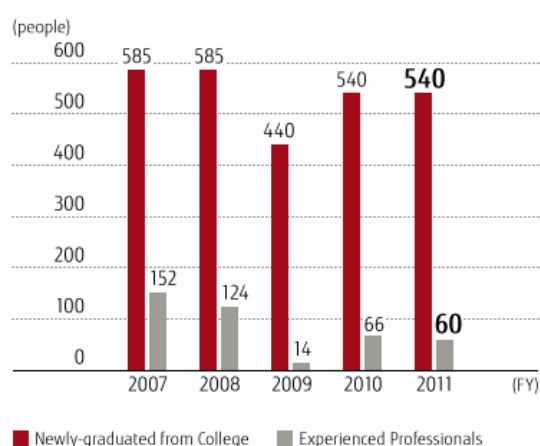
Creating Good Working Conditions

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 established and implemented our action plans[*1]. 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 a forum in which employees can participate accompanied by their children.

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.

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)

*1 action plans:
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).

Number of Employees Using the Care Leave Support System (FY 2011, Fujitsu Limited)
(People)

System	Total	Men	Women
Child care leave[*2]	118	4	114
Family care leave	8	3	5
Reduced working hours (child care)	251	8	243
Reduced working hours (family care)	0	0	0
Paternity leave	507	507	-

*2 Child care leave:
The percentage of employees who return to the workplace after taking child care leave is nearly 100%, for both men and women.

Forums that aim at reforming the way we work

We are implementing a variety of forums to improve both productivity and individual job satisfaction and fulfillment 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, from the FY 2010 forums, we have 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.

Fujitsu Tele-work System

Type	Definition of workplace	Remarks
Work from home	Home	Implemented April 2010
Satellite office	Office other than main office ・Fujitsu or Fujitsu Group business offices (excluding offices where an employee is stationed)	Previously implemented
Mobile work	Locations other than main office ・Customers' sites, hotel rooms on business trips, etc.	Previously implemented

VOICE: Feedback from Employees

Employees who telecommute

I live on the south coast of the United Kingdom. I joined the company nearly 6 years ago.

My role is Global VP of Reward.

My working day consists of many calls and dialogues with my global HR Director (based in Japan), executives, colleagues and team members around the world, ranging across an 18-hour spread of time zones from Australia to the West Coast of the United States.

My conference calls and meetings start as early as 6.00 a.m. and finish late into the evening.

Given where I live, I have a 2.5-hour commute, the company has therefore allowed me to work remotely from the company offices by setting me up with a Fujitsu 'office at home'.

I have a company landline phone and headset, broadband, laptop and ergonomically tested chair from which I work 2 to 3 days a week when I am not commuting to the main company offices for face-to-face meetings, Ciscos or travelling abroad on business.

Senior Director (Rewards) UK&I Sub-department Global HR Department Allison Dalley

This flexibility is common practice in many companies and reduces both office costs (I have no designated company office space allocated to me) and the travelling/commuting costs for the company. From a personal perspective, I am able to adjust my working day and week to accommodate the global (and therefore somewhat antisocial) nature of my role so that I manage all the relevant activities while still having quality time with my family and some work-life balance.

Measures to Energize Communication

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, along with business reorganization and other matters, to its employees through regular and ad hoc meetings such as the Labor Council or Productivity Council. Furthermore, these agreements stipulate the collective bargaining rights of the union.

Note that since Fujitsu adopts a union shop system, all ordinary employees are members of the Fujitsu Labor Union.

In Europe, the Fujitsu European Annual meeting has taken place every year since 2000, with the overall financial conditions of the Fujitsu Group and other issues shared with the employee representatives from Fujitsu Group companies.

Workshop Held on Creating an Even Better Labor Environment in China

In China, the labor environment has been developing steadily, highlighted by the successive emergence of various labor-related laws and regulations following the enactment of the Labor Contract Act in 2008. In 2012, the Chinese government formulated a national employment promotion plan (2010-2015), which sets forth basic policies on targets for working conditions and other goals.

To flexibly address these developments, Fujitsu Group companies in China have actively worked to provide even better working conditions and further enhance working environments, including rigorous enforcement of compliance.

In addition, HR community workshops are held regularly to discuss various themes related to labor-management relations from a variety of viewpoints, while gathering information from specialists from outside Fujitsu and best practices from personnel managers at various overseas Group companies. In these and other ways, insights are put to good use in implementing concrete measures in each Group company.

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.

The content of this employee satisfaction survey is basically kept the same every year to ensure that we can compare changes over the years. That said, the survey content is revised as necessary to address various changes in the environment surrounding the Company and management priorities. In the FY 2011 survey, we added new content on leadership needed to achieve innovation and greater employee consciousness around the topic. In FY 2011, we surveyed some 88,000 employees including those at Group companies.

Looking at changes at Fujitsu over the years, we maintained a high response rate in this survey, as in FY 2010, with a response rate of 89% this year. In addition, the degree of overall satisfaction has increased every year. The percentage proud to work at Fujitsu surpassed 80% in FY 2011. However, if we look at responses by segment such as organization or hierarchical level, there are differences in satisfaction and the issues to be faced vary. Therefore, we feed back the results to each organization after we categorize them, and encourage each organization to improve their employees' satisfaction level.

Furthermore, we use the survey results to review our Company policies such as personnel systems. With the employee satisfaction survey as our starting point, we will promote measures based on both organization and Company policies to ensure that Fujitsu remains a company where each employee can raise his or her own worth and work with pride and purpose.

Group Efforts in Overseas Business

In April 2011, we took our first employee engagement survey of all overseas business group employees (some 43,000 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 engaged are proud to be working at Fujitsu, and make every possible effort for colleagues and customers, and thereby become supporters of the Company. Generally, it is thought that in companies where the employees have a high level of engagement, employees work harder than is required and actively contribute to the success of business, thereby achieving 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 61% of employees in the overseas group responded positively (whereas 25% responded "cannot say" and 14% said "no"). Since individual elements directly related to engagement differ between groups, each organization created and implemented its own action plan. We evaluated the progress of these action plans continuously over a period of one year following implementation to improve employee engagement in all organizations within the Group.

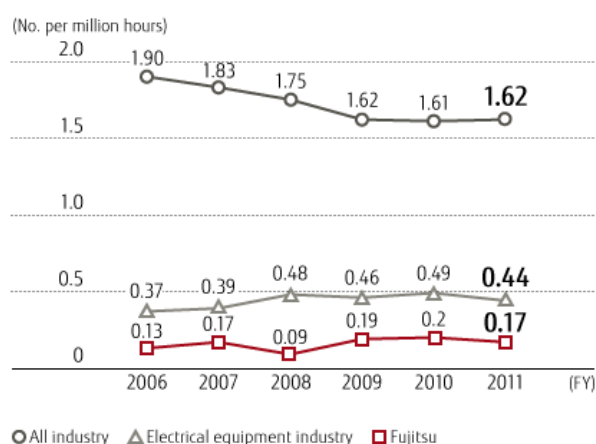# Occupational Health and Safety and Health Management

Efforts to Improve Occupational Health and Safety

Based on the Corporate Values of the Fujitsu Way, we work to ensure the safety of employees by providing work environments where people can work in safety and comfort.

In Japan, management and labor have jointly established a Central Occupational Health and Safety Committee, along with Onsite Occupational Health and Safety committees at each business site. These committees work to improve workplace health and safety. We also perform workplace inspection tours and take other steps to check for and rectify dangerous locations and factors that may impair health, while conducting risk assessments.

We promote health and safety education and training that match the characteristics of each workplace to create a workplace environment in which all our employees can work confidently in safety and comfort.

Frequency of Industrial Accidents (Fujitsu Limited)

(No. per million hours)

FY	2006	2007	2008	2009	2010	2011
All industry	1.90	1.83	1.75	1.62	1.61	1.62
Electrical equipment industry	0.37	0.39	0.48	0.46	0.49	0.44
Fujitsu	0.13	0.17	0.09	0.19	0.2	0.17

○ All industry △ Electrical equipment industry □ Fujitsu

Convening Occupational Health and Safety Committees

Every year, Fujitsu convenes the Central Occupational Health and Safety Committee, which is a Company-wide organization, to confirm the status of accidents and formulate prevention measures, in addition to determining Company-wide policy regarding occupational health and safety. Furthermore, Onsite Occupational Health and Safety Committee meetings are held monthly by occupational health and management organizations at each business site. Based on Company-wide policy, the committees work to formulate policies that fit the characteristics of each business site in an effort to ensure business site safety.

Building a Culture Where Employees Can Work Confidently and Positively Through Efforts to Maintain and Enhance Health

The Fujitsu Group makes efforts to maintain and enhance the health of employees and their families, while increasing health literacy, with the aim of developing work environments where every employee can work confidently and positively.

In regard to health management, we conduct activities focused on preventive health and education as a health enhancement initiative, along with promoting the early detection of health issues. These efforts are designed to allocate investment not only to those who need treatment and care, but also to our healthy employees.

In terms of 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.

Besides providing health support to employees and their families, we also make company-sponsored health checkups available to retired employees. These activities encompass not only support for the health of individual employees, but also support for organizations to improve their productivity.
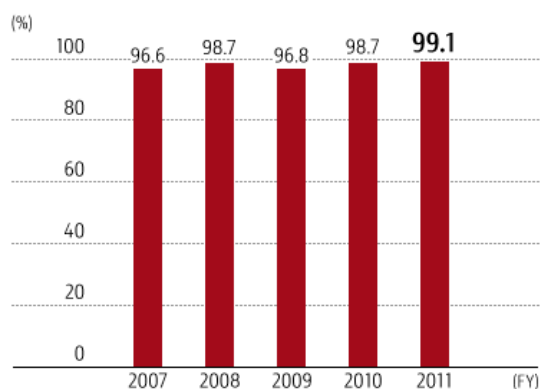
Health Management and Enhancement Initiatives

Implementing Health Checkups

Along with statutory health checkups, we have enhanced support for self-health management using an information system that allows employees to view the results of health checkups from their own workstations.

Rate of Periodic Checkups (under age 40, excl. age 35)

(%)	2007	2008	2009	2010	2011
	98.2	99.1	98.6	99.5	99.6

(FY)
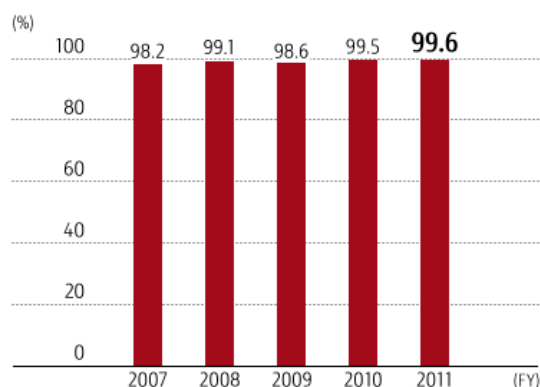
Rate of Chronic Illness Checkups (age 30, 35 and above 40)

(%)	2007	2008	2009	2010	2011
	96.6	98.7	96.8	98.7	99.1

(FY)

In other areas, we conduct specialized health checkups and health checkups for those who work extensive overtime hours.

Efforts to Enhance Health and Fostering a Self-Care Mindset

We conduct a variety of activities to ensure that our health-related investments filter through to all employees. We are focusing on enhancing the health of employees with particular emphasis on efforts to enhance self care. Initiatives include exercise promotion events accessible to everyone, such as walk rallies; activities to promote a healthy diet, such as hosting a healthy lunch seminar; smoking cessation activities, such as our "Stop Smoking Challenge" program; and various education activities focused on female health.

Specified Health Examination and Specified Health Guidance Initiatives

In regard to Specified Health Examinations and Specified Health Guidance, which began in FY 2008, we are implementing activities in cooperation with our health insurance union (Fujitsu Health Insurance Organization). We provide health guidance in collaboration with Best Life Promotion Ltd., a Group company established to strengthen support for health.

Mental Health Services

Having appointed an in-house mental health counselor at an early stage, Fujitsu provides mental health counseling services to employees. We have enhanced self care through measures such as making counseling available through external institutions and implementing stress tests for all employees through an e-learning program. Based on the stress test results, we also conduct organizational stress tests of each division, in an effort to support activities to improve work environments. Another priority has been to implement mental health education initiatives. We have enhanced opportunities for such education. Examples include mental health care in business lines, such as workplace management training for executive employees, and training for newly appointed executive employees, training for new recruits, and leadership training. Other activities include self care-based training programs.

Implementing Stress Tests

After implementing stress tests of each employee, we conduct organizational stress tests of each division. The results are used in activities to improve work environments.

Fujitsu Clinic

The Fujitsu Clinic was established as a medical clinic in 1944 on the premises of Fujitsu's Kawasaki Plant, for the purpose of providing medical treatment and health management services to employees and their families.

Fujitsu Clinic

To answer the demand for community healthcare, the Fujitsu Clinic also provides medical treatment to local residents.

In recent years, Japan has seen a shift in the composition of diseases from acute to chronic diseases. Accordingly, to help address the onset of lifestyle-related diseases, the Fujitsu Clinic has installed cutting-edge medical devices, such as CT and MRI equipment, capable of highly precise medical imaging. Through this measure, the Fujitsu Clinic has worked to enhance the prevention and early detection of lifestyle-related diseases, providing support for the earliest possible restoration of health. Furthermore, the Fujitsu Health Management Center has been established adjacent to the Fujitsu Clinic as a health checkup facility for employees. The center conducts various health checkups for current and retired employees of Fujitsu Limited and the rest of the Fujitsu Group in the Keihin region (about 30,000 people a year).

Developing Human Resources for Their Contribution to Society and the Planet

For a company to keep growing, management practices looking beyond its own business strategies to the sustainability of society, humankind, and the global environment are critical.
The Fujitsu Group will contribute to the advancement of society by developing global business leaders who will balance business strategy and social value creation.

Human Resource Development

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.

Fiscal 2011 Overview and Key Issues

The Fujitsu Group founded the Global Knowledge Institute (GKI) in 1999. GKI provides a system of programs to develop global leaders that ask "What is good for society?" and pursue the common good. Training programs have been completed by a total of 767 employees, including 273 overseas. In FY 2011, we added one new program and shored up one existing program.

Executive Vice President
Head of University headquarter
Tatsuya Miyake

System of Leadership Development Programs
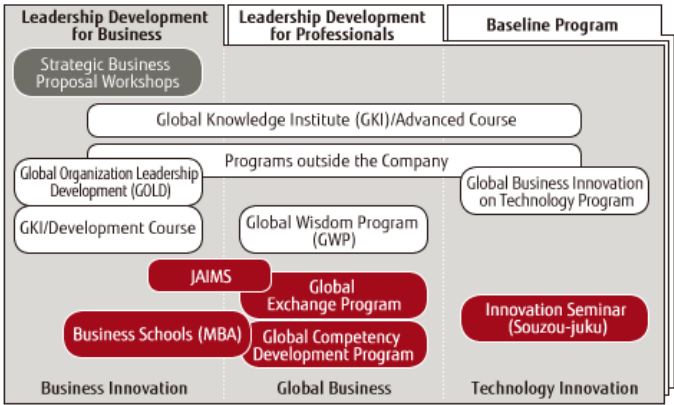
The program we introduced is the Global Wisdom Program (GWP). It is rooted in a new concept-developing business leaders that take a global approach to business generation and practice from the frontlines in a multicultural world. We selected nine newly appointed managers from among the entire Fujitsu Group to participate in the first run of the program in FY 2011, sending them to developing countries like Mongolia and Cambodia where they gained practical project experience.

The program we bolstered is the Global Organization Leadership Development Program (GOLD). In FY 2011, we moved from separate implementation in the United States, Europe, and Asia to an integrated format where participants visit Fujitsu workplaces around the globe. Last year, 60 individuals from Fujitsu's overseas Group companies were selected to participate in GOLD. Going forward, we will develop the program as a platform linking the next generation of business leaders by recruiting participants from Japan as well.

In FY 2012, we will work to further diversify Fujitsu's next generation of leaders by strengthening collaboration with overseas Group companies on business leader development. Additionally, we look to bolster baseline training targeting the creation of new value for society by having each of our employees understand and act in accordance with our corporate philosophy.

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.

FUJITSU UNIVERSITY: An Institution for Human Resources 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 this goal, we have implemented systematic education programs at FUJITSU UNIVERSITY 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, we will continue to 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
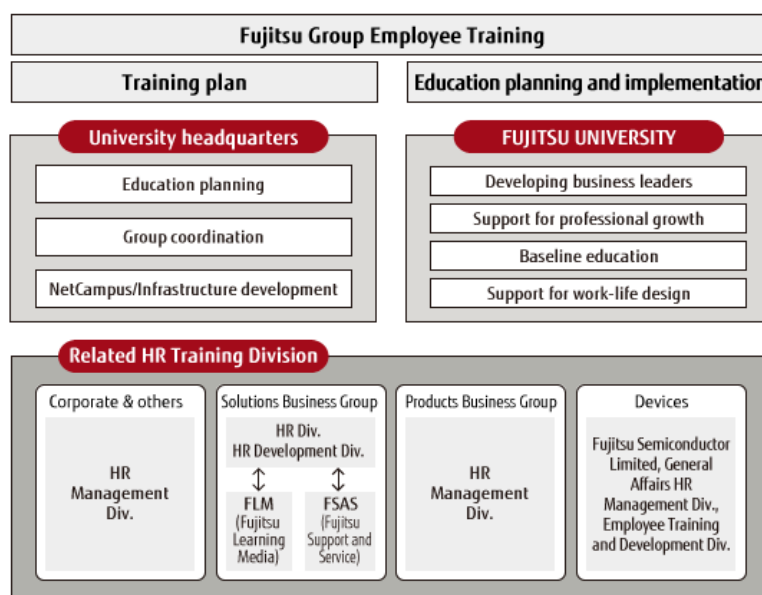
Fujitsu NetCampus

This is an online education and training platform open to all of our approximately 170,000 employees in 196 Group companies in 35 countries around the world (as of March 2012). It provides applications / admissions for courses, study materials, testing, questionnaires and other functions. Unified e-learning, which aims to disseminate corporate policies throughout Fujitsu, is also implemented using this platform.

In FY 2011, we held five of these unified e-Learning courses in Japan and one overseas. In FY 2012, we plan to hold a variety of such courses on various themes in cooperation with head offices.

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 launched a "Global Practical Wisdom Leadership Development Program" for young managers in which participants learn global leadership from direct experience, interactions with other cultures, and actual models. In this program, we aim to actuate the ability to compete on the global stage through experiences that expand the participants' capacity. This program consists of three months of concentrated training and an 18-month apprenticeship model. Participants in the first run of this program in FY 2011 were recruited from among both domestic and overseas employees.

Promoting Training in Manufacturing

At the Fujitsu Technology Institute, we seek to develop a core pool of production site operators able to adapt to rapid changes at the forefront of manufacturing. We provide a 12-month group training program that, in addition to offering certified occupational training based on Japan's Human Resources Development Promotion Act, includes training in core subjects and applied technologies vital to the Fujitsu Group.

Efforts to expand this training are also underway as we strive to reinforce the front lines of manufacturing from an organizational standpoint. Here, we are devising a system of level-specific training that includes units for managers in charge of production sites.

Formulation of Manager's Profile and Career Development Support

We have formulated a "Manager's Profile" that embodies our ideal for this class of employees. The profile underpins Fujitsu's current career advancement scheme for those interested in management, outlining both a direction to work toward and the skills that should be acquired along the way. While remaining cognizant of their own career trajectory, employees can utilize the profile to guide their skill development efforts. At the same time, Fujitsu is helping employees shape their careers by offering human resource programs built around this same vision.

Additionally, we have distributed to managers a handbook on management that is the basis for manager-specific training. The content is designed to boost their management skills in ways that will enable them to support the career development of their subordinates.

Activity Topics in FY 2011

Global Wisdom Program (GWP)

Global business development and advancement calls for incisive judgment to respond rapidly to any situation that arises. To cultivate leaders with such "practical wisdom," Fujitsu offered training for newly appointed managers, including dispatches to developing countries. In FY 2011, participants first traveled to Bangladesh and then to either Cambodia or Mongolia to observe local conditions, working to gain an understanding of developing countries' social issues, ICT utilization needs, and similar matters.

What I learned about the latest business and management theories from veteran instructors was especially valuable.

I am now working in China (Fujian), but every day I strive and search for ways to further our global business.

With local children on study tour in Bangladesh
Fujian Fujitsu Communication Software Co., Ltd.
Masanobu Tateishi

Global Organization Leadership Development Program (GOLD)

The Global Organization Leadership Development Program (GOLD) is a program that seeks to foster the next generation of leaders who will spearhead business at Fujitsu Group companies overseas. In addition to imparting strategic thinking and leadership skills, GOLD helps participants gain a better understanding of Fujitsu's history and business.

The group of medium-level managers worldwide selected for the program visit Fujitsu bases in Europe, Asia, North America and Japan to deepen their understanding of business and cultural characteristics unique to each region. These visits reinforce human networks that transcend regional boundaries and go beyond the limited framework of a training program. As such, GOLD has evolved into an opportunity to create new value.

Group photo of GOLD participants

Tohoku Reconstruction Assistance Programs

In late August 2011, Fujitsu teamed up with the non-profit organization Tono Magokoro Net to roll out a program for new employees to provide assistance in disaster-stricken areas. Around 300 people in total traveled to affected areas near the coast of Iwate Prefecture, Japan, over six consecutive weeks, helping out with tasks like debris cleanup, farmland revival, and PC data entry. In addition, Fujitsu employees who voluntarily took part in disaster volunteer programs offered assistance in areas of Iwate Prefecture such as Rikuzentakata City, Kamaishi City, Otsuchi Town.

Clearing debris in Rikuzentakata

Fostering Instructors for On-Site Environmental Classes

Fujitsu visits schools to give lessons aimed at conveying to local adults and children the importance of the environment. In FY 2011, classes well held at 49 locations, including at elementary schools, junior and senior high schools, and local community centers, with roughly 3,140 people taking part. Lessons touched on topics such as the "PC 3R" exercise (in which students learn about 3R while dismantling a PC), the My Earth card game (in which students study global environmental problems), and how electricity is produced and ways to measure when it is being wasted. Fujitsu also took steps in FY 2011 to foster the development of instructors for these classes, dispatching a total of 85 people (as of April 2012) as instructors across Japan.

On-Site Environmental Classes

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 contribute to the sustainable development of society and the earth through business activities to meet these needs and expectations.

Stakeholder Dialogue

We place great importance on interaction with diverse stakeholders as we conduct business

The Fujitsu Group always takes into account the bigger picture -the sustainability of society and the planet- when considering customer needs. The Fujitsu Group is committed to listening closely to feedback from various stakeholders, including customers, shareholders and other investors, business partners, and local communities, and to exceeding their expectations. Through this process, we seek to continuously improve our corporate value.

Dialogue Sessions with Guest Experts

We have defined priority fields for realizing a [prosperous society of the future in 2020](#), by gathering input from a range of experts invited to dialogue sessions.

Session 1 Global priorities and future business	Session 2 Environmental/sustainability priorities and businesses	Session 3 Integration of social priorities into management	Session 4 Exploring Fujitsu's future direction
Discussion on businesses that contribute to developing countries by resolving key issues through ICT.	Discussion on businesses that should be prioritized to build a resilient society from global and environmental perspectives.	Discussion on approaches to integrating CSR into management and message dissemination.	Discussion on future policies, specifically how to utilize core businesses to solve social issues, based on the previous three dialogue sessions.

Dialogue Participants

Nihon University Graduate School of Social and Cultural Studies Professor (Previously: UNPFA Tokyo Office) Kiyoko Ikegami

Graduate School of Business Administration, Keio University Associate Professor Masahiro Okada

United Nations University Vice-Rector Kazuhiko Takeuchi

Institute for Studies in Happiness, Economy and Society President Junko Edahiro

Patagonia Japan General Manager Takayuki Tsujii

WWF Japan Climate and Energy Group Leader Naoyuki Yamagishi

UN Global Compact Board Member Fuji Xerox Co., Ltd. Former Executive Corporate Advisor Toshio Arima

UNEP Finance Initiative Special Advisor Takejiro Sueyoshi

Key Comments from Experts (From Session 4: "Exploring Fujitsu's future direction")

Nihon University Graduate School Professor Kiyoko Ikegami

Using ICT to empower more people to live on their own terms is important. As many developing countries have five-year plans for fields like health, medicine, and education, establishing where ICT can be put to use is one place to start. I think the message that Fujitsu sent to society by reformulating its CSR policy is of great significance. I believe it is a mission statement outlining how the company intends to interact with society. I think it will go a long way toward helping the world understand what Fujitsu is all about.

UNEP Finance Initiative
Special Advisor
Takejiro Sueyoshi

I think Fujitsu's sound business operations are contributing to social infrastructure creation. The "K computer" is a good example. It has expanded awareness of the reason for the Fujitsu's existence and business operations come into play in society, inspiring the public to think about what should be deemed important. I would like Fujitsu to think in terms of "what we will do" rather than "what we can do." Thinking about what it "can" do is important, but so is considering what it "will" do as a leading global company. I look forward to seeing proactive action with an eye to the future.

- [FY 2011 Stakeholder Dialogue (Session 1)](#)

The Last Word in Today's Dialogue

President and
Representative Director
Masami Yamamoto

I think demonstrating commitment to social contribution through business operations and giving impetus to such activities is at the heart of CSR. The Fujitsu Group's CSR initiatives are rooted in ICT. I want us to be a company where advancing global and societal development is a natural extension of our core operations.

Every Fujitsu Group employee is charged with understanding the power inherent in ICT and providing opportunities to people around the globe. I believe it is vital to also consider collaboration with countries and international organizations, and to show the greatest respect possible for the array of cultures and lifestyles in developing nations and elsewhere around the world when offering people opportunities.

Corporate Senior
Executive Vice President
and Representative
Director
Masami Fujita

In our recent dialogue, we shared the view that it is our social responsibility to "put ICT to use in developing human abilities." In tune with the universal design concept, products that we developed for challenged persons are also easy to use for others. Further, ICT advancements made in developing countries can also be employed in industrialized nations as reverse innovations[1]. It is fascinating that ICT has the power to do things like promote diversity as well. Inclusion[2] of people from a wide range of backgrounds and the way in which partnerships are built are topics I would like to explore together with employees.

*1 Reverse innovations:
products or services developed in emerging markets or developing countries that are deployed in industrialized nations.

*2 Inclusion:
the provision of opportunities for diverse groups of people to interact and participate in society and organizations as equals.

Other Dialogues

Exchange of ideas on universal design

Envisioning a society where everyone benefits equally from ICT, we discussed with key figures universal design as a tool to provide a greater number of people with opportunities.

Dialogue on universal design

A conference sponsored by Fujitsu Research Institute to discuss BOP[*3] market development and social business innovationz

We welcomed strategists and researchers from major vendor companies to bring issues to light through case studies and research reports, and engage in debate and offer propositions on the BOP market's future direction.

*3 BOP:
Acronym for Base of the Pyramid, the lowest income earners in the world. It is said that around 4 billion people are in this category.

Conference on BOP market development

FY 2011 Stakeholder Dialogue (Session 1)

Concrete Initiatives for Addressing CSR Priorities 1 and 2

The purpose of CSR activities is to reflect on our own relationship with society from a long-term perspective, then to innovate as necessary to create both a sustainable society and business. Along these lines, ISO 26000, the international CSR standard, provides guidance to companies on promoting activities that reflect society's expectations and demands based on dialogue with external stakeholders. In FY 2011, Fujitsu held informal conversations with external experts around two of its five CSR priority issues established in December 2010 - "Providing Opportunities and Security Through ICT," and "Protecting the Global Environment" - and examined the types of businesses it should focus on under a long-term, global framework.

On December 12, 2011, Fujitsu invited three guests to discuss and exchange opinions about how it should approach integrating and creating social and economic value toward the year 2020. The invited guests were Professor Kiyoko Ikegami of the Nihon University Graduate School of Social and Cultural Studies (Previously of the UNPFA Tokyo Office); Associate Professor Masahiro Okada of Keio University's Graduate School of Business Administration; and Kazuhiko Takeuchi, United Nations University Vice-Rector and Director of the United Nations University Institute for Sustainability and Peace (UNU-ISP).

All three experts pointed out that while a message from senior management on contributing to the Earth and society is good, Fujitsu still needs a concrete strategy for making a contribution in regions where major economic growth is expected, such as Africa, through a solutions-focused ICT business. They surmised that unless Fujitsu broadens its business domain beyond developed nations, it has little hope of achieving long-term growth as a company.

Key Comments from Experts

Kiyoko Ikegami

Ninety six percent of the world's rising population lives in developing countries, so investment is also heading inevitably to the developing world. Long-term growth is unlikely to await those who fail to respond to this trend. In sub-Saharan Africa, the population is booming. The general consensus is that stable countries like Tanzania that have no armed conflicts are the most likely targets for investment. In developing countries, there is demand for ICT for use in conducting censuses, promoting knowledge sharing, performing remote medical care, and in other areas. Fujitsu should be more proactive in forging links with resident organizations, international NGOs, and other entities on the ground to assess these needs.

Masahiro Okada

While Japanese companies continue to look inward, companies like IBM and ZTE that pursue business with a true target market of 7 billion are raising their corporate value. Even focusing solely on BRICS, as a latecomer competition will already be intense. Fujitsu should consider its options for addressing emerging markets and the BOP population in parallel with its current efforts in developed markets. In doing so, before trying to think of businesses for developing countries while staying in Japan, Fujitsu should go to those markets and learn about their needs and issues firsthand. This is important for understanding what potential exists for applying the company's own unique strengths. Fujitsu should also take full advantage of organizations like JETRO, JICA, and the Japan Inclusive Business Support Center.

Kazuhiko Takeuchi

I want Fujitsu to look beyond advanced industrial nations and think about providing cloud-based ICT in developing countries where servers are nonexistent. Rather than viewing issues like water and population separately, Fujitsu should consider ways to utilize ICT to resolve complex, multifaceted issues, such as economic development, resources and the environment, in an integrated way. In solving the dilemmas that developing countries face, it is critical that Fujitsu begin responding in a concrete manner by actually going to these countries and allying itself with key organizations on the ground.

Kiyoko Ikegami

Professor, Graduate School of Social and Cultural Studies, Nihon University;

Graduate School of Public Administration, International Christian University (Master of Public Administration). Graduate School of Human Sciences, Osaka University (Doctorate). Before starting her current position in 2011, Ms. Ikegami served as high commissioner for refugees (UNHCR), responsible for settlement promotion at the Office of the United Nations; Administrator of the Office of Human Resources Management, United Nations Headquarters; Director of the Research and Planning Division and Director of the Planning and Development Division at the Japanese Organization for International Cooperation in Family Planning (JOICFP); Resource Mobilization Officer at the International Planned Parenthood Federation (IPPF) in London; and Director of the UNPFA Tokyo Office. Other previously held positions include membership on the Ministry of Foreign Affairs' External Advisory Meeting on ODA Evaluation and an External Expert to the Advisory Committee on Evaluation and Advisory Council on Assistance to Women in Afghanistan.

Masahiro Okada

Associate Professor, Graduate School of Business Administration (Keio Business School), Keio University

Mr. Okada graduated in 1985 from the School of Political Science and Economics, Waseda University. Following a stint at Honda Motor Co., Ltd., he earned an M.B.A. from the Graduate School of Business Administration, Keio University. After working for Arthur D. Little (Japan), Inc., he became a fellow at U.S.-based MUSE Associates, Inc. In 1999, he earned a Ph.D. in Business Administration, from the Fisher College of Business, The Ohio State University. In 2002, he became an Associate Professor at the Graduate School of Business Administration, Keio University.

Kazuhiko Takeuchi

Vice-Rector, United Nations University;

Director of the United Nations University Institute for Sustainability and Peace (UNU-ISP)

Mr. Takeuchi became Professor of the Graduate School of Agricultural and Life Sciences at The University of Tokyo, from 1997. From 2005, he became jointly appointed Deputy Executive Director of the Integrated Research System for Sustainability Science (IR3S) at The University of Tokyo. After being named Vice-Rector of the United Nations University in July 2008, from January 2009 he became concurrently named a Director of the United Nations University Institute for Sustainability and Peace (UNU-ISP). He is the Editor-in-Chief of the International Journal "Sustainability Science" by Springer Japan, and a Specialist in landscape ecology, landscape planning, and sustainability science.

*1 :
Information in the Brief Bios of Experts is current as of June 20, 2012.

FY 2011 Stakeholder Dialogue (Session 2)

Concrete Initiatives for Addressing CSR Priorities 1 and 2

In Session 2 of our Stakeholder Dialogue held on January 13, 2012, WWF Japan Climate and Energy Group Leader Naoyuki Yamagishi, Junko Edahiro, President of e's Inc., and Patagonia Japan General Manager Takayuki Tsujii were invited to discuss and exchange opinions about how Fujitsu can create social and economic value.

One of the opinions that arose from the discussion is that Fujitsu's strength is in the diligence and honesty of the company and its employees. Fujitsu is also putting individual initiatives forward, and the key in coming years will be determining ways to take advantage of the technologies and human infrastructure that make these initiatives possible as additional strengths. Another comment expressed was that while Fujitsu verbalizes a commitment to realizing a Human Centric Intelligent Society, and has positioned the cloud and ICT in particular as core businesses, it has not conveyed this fact well to the public. For this reason, the experts recommend that Fujitsu increase its interaction with people outside the company at a variety of levels.

Key Comments from Experts

Junko Edahiro

Looking at the environment holistically over a long time horizon, there are three changes in focus that I would recommend. The first is to switch focus from individual issues to structures. Leveraging ICT to address global-level structural issues like energy and food will be vital going forward. The second is to emphasize resilience over efficiency alone. Resilience means having the flexibility and strength to bounce back. I believe that cloud technology will play a useful role in Japan's resilience in the wake of the Great East Japan Earthquake. The third recommendation is to shift focus from coping to co-creation. This is the era of the co-creative society. Fujitsu should be utilizing the cloud and supercomputers more on a pro-bono basis.

Takayuki Tsujii

Patagonia's mission statement is "Build the best product, cause no unnecessary harm, use business to inspire and implement solutions to the environmental crisis." To give an example, in 1996, the company switched over to organically grown cotton for all of its cotton products. Although sales fell the first year, customers clearly liked this move, and sales started to grow again the following year. The philosophy of Patagonia founder Yvon Chouinard was that "if everything is done the right way, profits will follow," and our commitment to this has never changed. Fujitsu has massive scale in terms of both people and technologies. I hope to see Fujitsu become a leader among responsible companies in solving environmental issues from a global perspective.

Naoyuki Yamagishi

My responsibilities cover climate change and energy. At the COP 17 meeting, the decision was made to shoot for a new agreement in 2015. But it is critical that global companies like Fujitsu respond to the environment regardless of the Japanese government's position. For this reason, I have three major recommendations for Fujitsu. First, bring ICT to bear on controlling power grids built around natural energy sources. Second, help individual regions project and adapt to climate change. And third, further reduce CO_2 emissions by better visualizing emissions data. Also, my impression is that Fujitsu's annual CO_2 emissions figure of 1.5 million tons is a large figure. I would like to see the company work harder to reduce its emissions.

Brief Bios of Experts[*1]

Junko Edahiro

President of Institute for Studies in Happiness, Economy and Society. President of e's Inc., President of the NGO - Japan for Sustainability.

Ms. Edahiro received a master's degree in educational psychology from the University of Tokyo. Following a career as a simultaneous interpreter, her interest in how to convey and link things together grew, leading her to research mechanisms for creating change as a translator and environmental journalist. Today she lectures, writes and translates on a variety of environmental themes and activities. In 2007, she won acclaim for her translation of Nobel Peace Prize Winner Al Gore's book An Inconvenient Truth. In January 2011 founded the Institute for Studies in Happiness, Economy and Society, which holds study sessions on learning, thought and conversations on the relationship between true happiness, economy and society through the lens of sustainability.

Since 2011, she has served as a member of the Fundamental Issues Subcommittee, the Advisory Committee for Natural Resources and Energy (Ministry of Economy, Trade and Industry)

Takayuki Tsujii

Patagonia Japan General Manager

Joined Nippondenso Co., Ltd. (currently DENSO CORPORATION) in 1991.

In 1995, joined the master's program at the Waseda University Graduate School of Social Sciences, specializing in research on how the Japanese view nature.

In 1999, Mr. Tsujii began working as a part-time staff member at Patagonia's store in Shibuya, Tokyo, and joined the company as a full-time employee in 2000. After stints at the company's Kamakura store and in marketing and wholesale, he became general manager of Patagonia Japan from 2009. After joining the company, he continued to pursue his love of nature, making a long-distance trek (45 days) across the west coast of Greenland in 2003, and trekking 45 days across the Isla Grande de Tierra del Fuego in 2007. He also enjoys sea kayaking and glacier skiing.

Naoyuki Yamagishi

WWF Japan

Climate and Energy Group Leader

Mr. Yamagishi graduated from the College of International Relations, Ritsumeikan University, in March 2001. In September, he entered graduate school at Boston University, where he studied in the master's program in International Relations and Environmental Policy. After earning his degree in May 2003, joined WWF Japan as an officer overseeing climate change. In addition to involvement in policy recommendation and campaign activities, he is responsible for information gathering and lobbying activities at UN meetings. He has been the climate and energy group leader at WWF Japan since 2011.

Mr. Yamagishi was also a member of the Ministry of Economy, Trade and Industry of Japan's Study Group on Economic Options for Coping with Global Warming (fiscal 2008), and a visiting researcher at the Research Office on Environment, House of Representatives (fiscal 2008)

*1 :
Information in the Brief Bios of Experts is current as of June 20, 2012.

FY 2011 Stakeholder Dialogue (Session 3)

Concrete Initiatives for Addressing CSR Priorities 1 and 2

For Stakeholder Dialogue Session 3, held on February 15, 2012, Fujitsu invited two experts to speak on the integration of social issues into management-UN Global Compact Board Member Toshio Arima and UNEP Finance Initiative Special Advisor Takejiro Sueyoshi.

One of the views expressed during the discussion is that the real problem is determining which issues to consider problematic from a management standpoint. While demonstrating concern for stakeholders is necessary, their needs vary depending on where they stand, and often conflict with each other. In attempting to integrate CSR into management, it is important to consider the extent to which this problem can be overcome and how it is viewed with respect to the company's management philosophy. Furthermore, the starting point for CSR is being successful in your core business. To achieve this shows that a company is well-accepted by society. Beyond that, Fujitsu needs to clarify based on its thoughts and philosophy what social problems it considers important and where its power as a company is best put to use.

Key Comments from Experts

Toshio Arima

From a management viewpoint, it is the management philosophy that determines how economic elements and social value are balanced. There are also other criteria for decision-making beyond how to make a business profitable, such as how to develop human resources or spur technological innovation. The real problem for management is figuring out what it should label as problematic. For example, the System for Prediction of Environmental Emergency Dose Information (SPEEDI) and the Automated Meteorological Data Acquisition System (AMEDAS), both of which use supercomputers, play a useful role, but things should not stop there. What should Fujitsu consider next from that vantage? For example, it is not sufficient to say that a pharmaceutical company's business is CSR itself just because it produces drugs. While a company should aim ultimately to be useful to society, every employee in it still needs to consider what they can do to achieve that objective.

Fujitsu should step back a moment and consider what it could do to truly contribute to society with no regard to the bottom line, then consider what is necessary to be sustainable as a company, including around the issue of profitability.

Takejiro Sueyoshi

A company has to be useful to society, but there are a lot of problems out there that need addressing. Fujitsu has to decide based on its own thought and philosophy which of those problems it considers important, as well as where its power as a company is best put to use. Fujitsu has to respond to important problems affecting its business, as well as problems that must be resolved in order for business in general to develop. If considered in this way, the issues will clearly emerge. Putting these issues to society will also win its acceptance Global society faces issues around two phenomena : one is natural and the other is social, such as poverty, disparities, human rights, and infectious diseases.

Resolving these issues will require a response that integrates the natural and social sciences, and it is ICT's role to link the two together. It is important for Fujitsu, in this respect, to have as many contact points as possible with society through its ICT efforts.

Brief Bios of Experts[1]

Toshio Arima

UN Global Compact Board Member

Chairman of the Board, Global Compact Japan Network

Fuji Xerox Co., Ltd.

Former Executive Corporate Advisor

After graduating from the College of Liberal Arts at the International Christian University, in 1967, Mr. Arima joined Fuji Xerox Co., Ltd. He served as General Manager of corporate strategy and corporate business planning, and President and CEO, at Xerox International Partners (U.S.A.), before being appointed President and Representative Director of Fuji Xerox Co., Ltd. in 2002. In 2007, he became a Special Advisor, retiring this post in 2012. He serves currently as a UN Global Compact board member, encouraging companies to proactively join in helping to resolve global issues around human rights and labor, the environment and corruption. He is Chairman of the Board of UN Global Compact Japan Network.

Takejiro Sueyoshi

Special Advisor, UNEP Finance Initiative

Mr. Sueyoshi graduated from the Faculty of Economics at The University of Tokyo, in 1967. He joined The Mitsubishi Bank, Ltd. in the same year. In 1989, he was assigned to North America Headquarters. After stints as Director and General Manager of New York Branch and President of the Bank of Tokyo-Mitsubishi Trust Co., Ltd. (New York), he was named Executive Vice President of Nikko Asset Management Co., Ltd. in June 1998. He was appointed as a member of the UNEP Finance Initiative Steering Committee during his tenure at Nikko Asset Management, opting to focus full-time on the UNEP Finance Initiative following retirement. Currently he serves as a Special Advisor.

[1] :
Information in the Brief Bios of Experts is current as of June 20, 2012.

For Our Customers

We adopt a customer-centric approach to our thinking and actions, and communicate proactively with our customers so that we can grow together as their partner.

To Increase Customer Satisfaction

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 and transform ourselves in order 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 by using the "Program to Improve the Quality of Management[*1]", and taking a number of initiatives to form an innovative corporate culture that can keep pace with customer changes.

*1 Program to Improve the Quality of Management:
A 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.

Promoting Field Innovation with the Customer

Fujitsu initiated "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 a tool to support people in their work and increase efficiency in their working places. Field Innovators, who are specialists in Field Innovation, concentrate on the customer's workplace to determine the true nature of the issues present by visualizing relationships between people, processes, and ICT. This increases the value of using ICT by making full use of actual insights from the workplace.

By making such management issues visible, Field Innovation leads to ongoing management innovation by customers in line with top management's intentions. We have already implemented Field Innovation programs at as many as 400 customers and also continue to use it ourselves within the Fujitsu Group.

Now, 400 Field Innovators work with customers to visualize the issues and build consensus at customer worksites to promote innovation. We continue to foster Field Innovators in a bid to strengthen the framework and concentrate their knowledge.

Fujitsu accumulates practical wisdom as the knowledge gained through Field Innovation, which it then uses to increase the quality of activities and provide further value using ICT.

Results of Field Innovation Activity (Including Fujitsu Group internal projects) (Units: Activity)

	FY2008	FY2009	FY2010	FY2011
Results of Activity	129	294	331	336
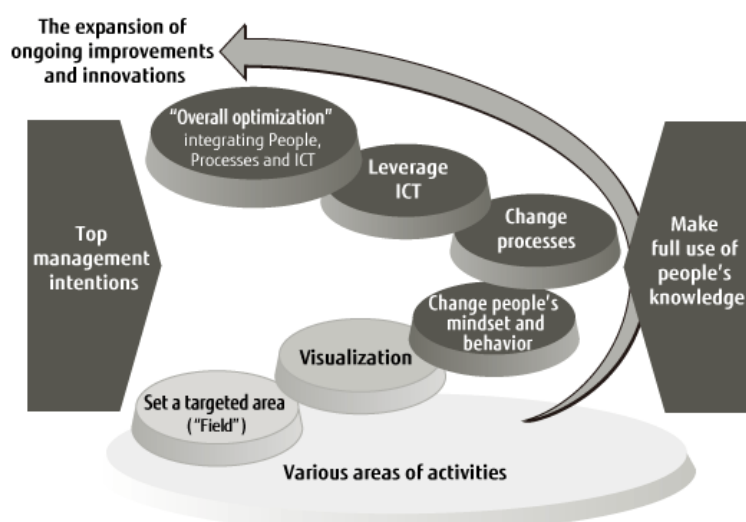
The Field Innovation Process

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 thoroughly visible using the latest techniques (such as business fieldwork[*2]) and technology (such as BPM-A[*3]).

*2 Business fieldwork:
A site survey method in business based on ethnography, a social scientific research and analysis methodology for identifying and visualizing facts. In business, this method is used primarily for observation and innovation at customer sites.

*3 BPM-A (Interstage Business Process Manager Analytics):
A business process observation/analysis tool developed by Fujitsu that can help grasp bottlenecks and other operational process issues and facilitate process innovation.

Facts modify attitudes and actions

Issues only become clear when the basic facts are known, after which mindsets can be reformed. We aim to establish an agreement on mindset among people through facilitation and workshops, and achieve reforms by taking advantage of people's knowledge. The changes in people's mindset and actions will affect the processes in which we utilize ICT. Our innovation methodology is threefold - in People, Processes and ICT - through which we advance reforms.

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. We also sponsor an "FI Community" to research the keys to promoting innovation by drawing together customers who have experienced Field Innovation for themselves.

VOICE: Feedback from Customers

Asahi Glass Co.,Ltd.
Global IT Leader
General Manager
Information Systems Center
Motoi Kamba

At Asahi Glass Co., Ltd., Information Systems Center team members were not making the most of systems knowledge outside the scope of their responsibilities or examples from other teams to reduce human error. However, Field Innovation activities conducted with a special field innovation team, comprising representatives from each team at the center, revealed the usefulness of such practices, spurring a change in mindset and motivating them to seek out this information. As a result, they started conducting reviews within the team, and human error was reduced substantially. Looking ahead, I hope that all Information Systems Center members will embrace this new frame of mind.

Motoi Kamba

Seikeikai Group
President and Chief Executive Officer
New Tokyo Hospital
Hiroaki Harasaki, M.D., Ph.D.

An examination of business operations at the New Tokyo Hospital using Field Innovation uncovered several issues, including dozens of minutes of lost time per day. In an effort to resolve these problems, the hospital staff worked together with Field Innovators to carry out operational improvements. The result was better communication within the hospital, as well as a shift to the use of electronic medical records. Thanks to these improvements, patient rehabilitation, which frequently tended to be postponed due to lost time, now takes place on schedule. The number of rehabilitation sessions logged has also risen.

Hiroaki
Harasaki

## Fujitsu Trusted Cloud Square

Established in 2010, Fujitsu Trusted Cloud Square is a showroom where customers can experience firsthand Fujitsu technologies, products and services for the cloud computing era. The showroom offers demonstrations, seminars, ICT system testing and other features that allow customers to become familiar with and try out virtualization technologies that support private clouds, server consolidation for ICT infrastructure optimization, and the use of cloud services via networks. Customers considering cloud adoption can inspect and benchmark systems built on products from Fujitsu and its partners.

Around 50,000 people came to Fujitsu Trusted Cloud Square to visit and utilize services there in FY 2011. The facility has now hosted roughly 100,000 visitors and users since its opening.

- Fujitsu Trusted Cloud Square

Customers can see infrastructure for building and managing onsite private clouds
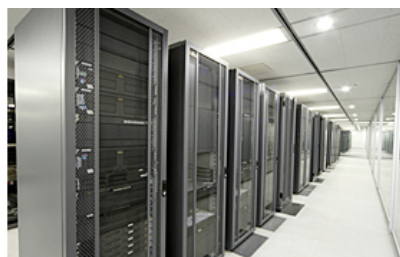
Approx. 300 server and storage units onsite are used to test and demonstrate customer ICT systems

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 issues. And we have also been providing rapid responses to customers concerning the functions and prices of products before they make their purchases. All such pre-purchase telephone inquiries are referred to a single window, 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 clearinghouse that links the customer to the best line of communication for answering their inquiries. They not only contribute to increasing customer satisfaction through 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 as a special bulletin to our executives.

Fujitsu Customer Relations Center/Fujitsu Contact Line
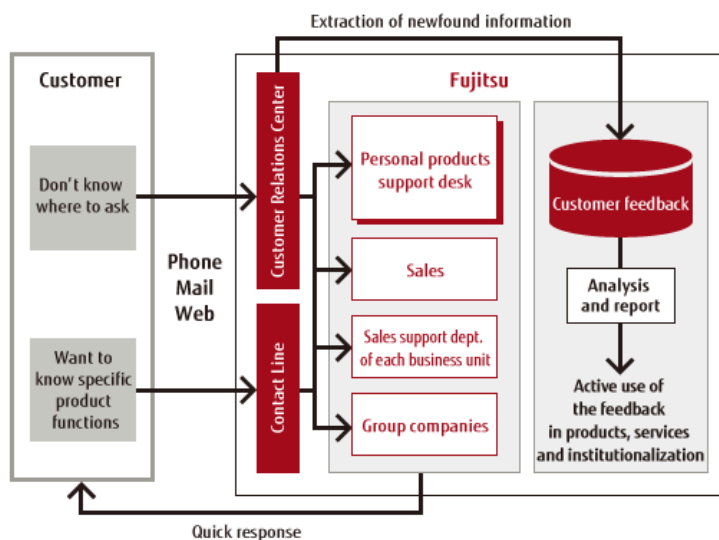
Trends in Inquiries Addressed to the Customer Relations Center
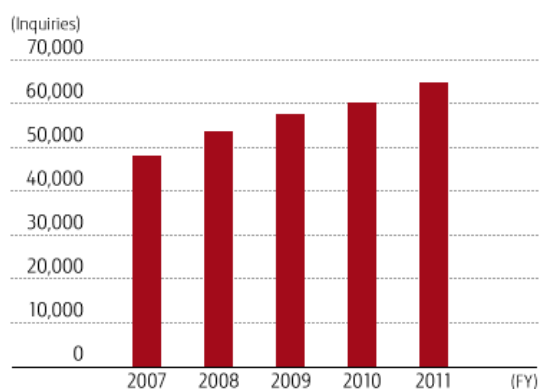
PC Support Center for Individual Customers

In Japan, 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[*4] at our Azby Technical Center, which is a major part of the personal products support desk.

Examples of Improvements Based on Customer Feedback

- **Provision of RAID cards[*5] for PRIMERGY requiring no battery replacement (see note)**
  Although servers are expected to operate nonstop for up to five years, the battery products inside RAID cards have a useful life of two years. Customers had pointed out that battery replacement was troublesome since it requires the system to be shut down and man-hours to perform.
  To address this, Fujitsu commercialized a RAID card with batteries featuring virtually the same useful life as the servers. The new cards were launched in August 2012.

- **Changes to printer display specifications**
  Customers pointed out that current monochrome displays on system printers were hard to see when placed in low-lit areas. To address this, Fujitsu at the end of May 2011 began offering backlit monochrome LCDs, which are easier to see, with its system printers.

*4 Excluding days for system maintenance

*5 RAID cards:
RAID cards are controller devices that allow multiple hard disks to be treated as a single drive.

Placing Importance on Connecting with Our Customers

Fujitsu Family Association

The Fujitsu Family Association was founded in 1964 as our user community in Japan to help members exchange information and improve each other's skills. As of the end of FY 2011, it had 11 chapters and LS Research Committees[*6] throughout Japan with some 3,500 members.

Study and research activities were held among the members in FY 2011 to encourage ICT management in step with globalization, promote activities closely tailored to local needs, and to standardize member services. Also, conferences were held in autumn in Sendai, Japan, and an overseas seminar in the United States, while five 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 part of 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.

Notably in FY 2011, the Family Association vigorously supported recovery efforts in areas hardest hit by the Great East Japan Earthquake. The association presented donations in March 2011, and became the first ICT user community in Japan to declare its cooperation with recovery support efforts in the Special Support Program announced on May 20, 2011. The association's fall conference in the city of Sendai was attended by a record 1,231 members from across Japan. At the conference, members pledged their ongoing

support for recovery efforts in the disaster-stricken region.

The Family Association has offered four points that will guide its activity policy in FY 2012, with the aim of making the user community a more appealing one than ever.

1. Encourage ICT utilization responsive to global management, and promote activities useful in supporting the resolution of issues that members face
2. Promote activities that capitalize on local characteristics and standardize member services
3. Promote research activities and information sharing with respect to advanced ICT
4. Strengthen mutual communication among members

*6 LS Research Committee:
This committee, originally formed as the "Large Systems Research Association" in 1978, was merged with the Fujitsu Family Association in 2007 with the renewed purpose of carrying out research on leading-edge technologies and concepts, and implementing effective ICT utilization that will contribute to members' growth.

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: In Japan, 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, datacenters, and global themes (healthcare).
- Event sponsor/co-sponsor: Fujitsu Ladies Golf Tournament, Izumo All Japan University Ekiden, Fujitsu Concert Series (classical), Fujitsu Cup Masters Tournament (Japanese chess), Japan Science & Engineering Challenge (JSEC), YMCA International Charity Runs, others

Marking and Labeling of Product and Service

In every division in charge of a Fujitsu product or service, we make all possible efforts to comply with all laws and company internal standards concerning the marking and labeling of products and services, so that quality, performance, safety and specifications can be conveyed properly to customers.

Quality Initiatives

The Fujitsu Group, to further enhance the trust placed in it by customers, practices quality management, and works to achieve process improvements through visualization of its efforts regarding quality, and with QMS.
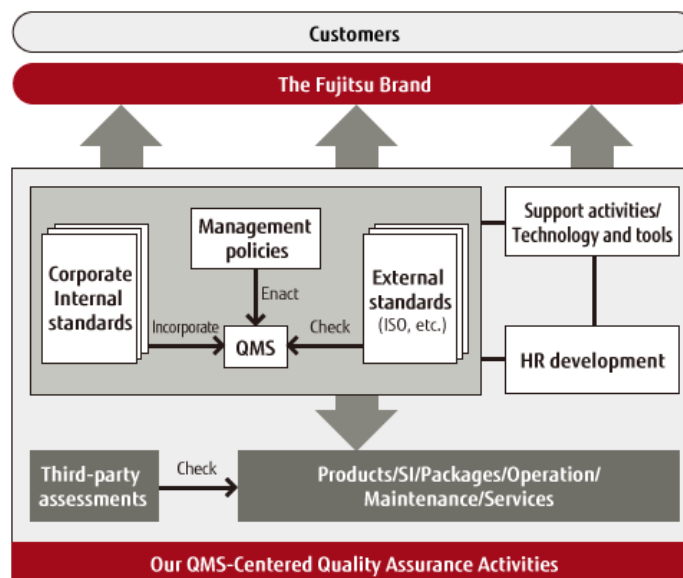
The Pursuit of Quality

Quality that Builds Trust, Safety and Security

The Fujitsu Group attaches fundamental importance to quality in all business activities to ensure that everyone can equally enjoy the benefits provided by ICT with safety and security. Our aim is to achieve a level of quality in all products and services that satisfies customers.

To accomplish this we have established and maintain the quality management system (QMS). Through the QMS we regularly confirm the progress of the PDCA (Plan, Do, Check, Act) cycle in the light of ISO and other international certification standards, and make process improvements to achieve even higher quality.

Our QMS-Centered Quality Assurance Activities

Customers

The Fujitsu Brand

Management policies

Corporate Internal standards — Incorporate → QMS ← Check — External standards (ISO, etc.)

Enact

Support activities/ Technology and tools

HR development

Third-party assessments — Check → Products/SI/Packages/Operation/ Maintenance/Services

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 to provide them with 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

- We pursue quality from the customer's perspective.
- We build in quality that anticipates changes.
- We achieve quality consistent with our social responsibilities.
- We use first-hand feedback based on the actual situation.
- We work with our business partners to improve quality.
- We seek to make public quality-related information transparently.
- 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.

Acquisition of ISO 9001 Certification

Based on our belief that better processes create better products and services, Fujitsu is continuously improving our processes to meet the needs of the market and our customers. This ongoing effort has led to the certification of all our business locations under ISO 9001.

## Safety Assurances Based on the Fujitsu Product Safety Charter

Quality is the basis of brand value for the Fujitsu Group. Products and services that customers can safely use is the essence of the Fujitsu Group's business. Based on this philosophy, in June 1994 Fujitsu formulated the "Fujitsu Product Safety Charter" ahead of the implementation of Japan's Product Liability Act (effective from July 1, 1995).

Based on the Fujitsu Product Safety Charter, we have revised and put in place various regulations and technical standards regarding product safety, and have taken steps to distribute this information through such means as new employee orientations, group training courses for technical departments, and quality conferences.

Fujitsu will continue to actively adhere to the following points in an effort to establish and maintain a corporate culture that assures safety.

- We will comply with laws and regulations regarding product safety, including the reporting of product accidents.
- We will put in place and comply with independent safety standards, and establish a suitable quality assurance structure.
- We will compile data on product accidents and related information.
- We will respond to product accidents and other incidents.

### The System of Quality and Safety Regulations
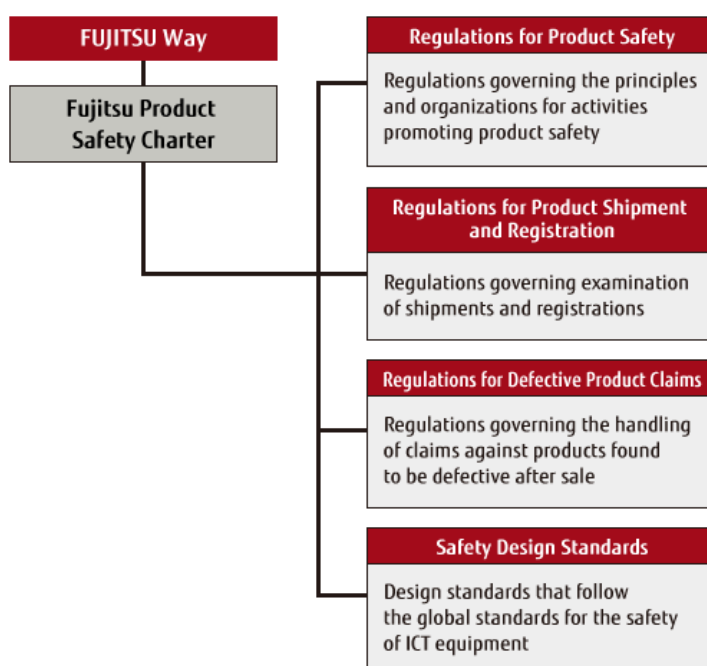
Our Approach to Promoting Quality Assurance

Fujitsu has established a dedicated unit for quality improvements within each business division and each Group company to ensure that it is able to provide customers with high-quality products and services.

Also, through the Quality Assurance Unit, which consists of representatives of these dedicated units, we promote information sharing, propose countermeasures, and improve support structures in ways that transcend organizational barriers. In this way, we work to establish a QMS that creates added value for the customer.

The Quality Assurance Structure
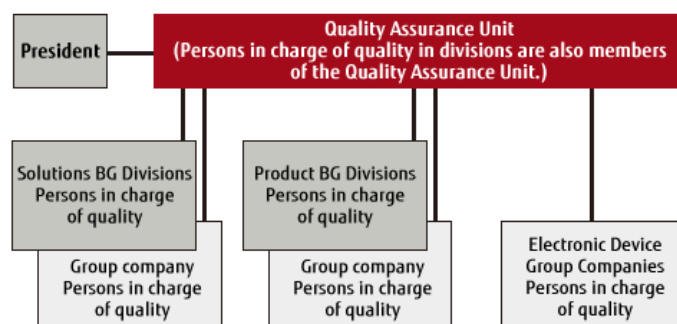
Improving Quality of Products and Services through Qfinity Activities

Since FY 2001, Fujitsu has implemented Qfinity activities, which are independent quality improvement activities, in all divisions.
The word Qfinity was created by combining "Quality" and "Infinity" to express the concept of our commitment to the infinite pursuit of quality.
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 2011: 6,718 project initiatives (as of March 31, 2012)
- FY 2011: 102,069 improvements/proposals (as of March 31, 2012)

In FY 2011, Fujitsu established a new training program to emphasize the "innovation" as well as "improvement" aspect of its Qfinity activities.

Information on Qfinity activities is shared internally using the Qfinity System, a web-based information system on the corporate intranet. It is used to benchmark the objectives and processes of other divisions, as well as to acquire information and knowledge on such topics as technologies and expertise.

Qfinity Group-Wide Quality Improvement Activities

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

Each year these Qfinity activities are collected into a handbook that is distributed to companies throughout the domestic Fujitsu Group.
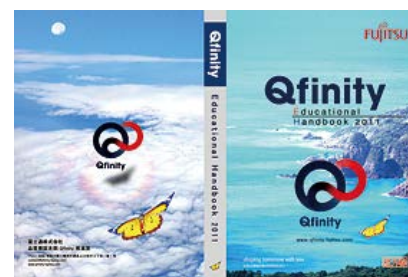
Customer-Centric Quality Assurance Activities for Products and Services

In providing products and services, we adopt the customer-centric perspective. This attitude is central not only at the design review stage but also at every stage of each process, where we objectively ask "does it meet customer needs and expectations?" as we perform the evaluations and audits.

Flowchart for Quality Assurance Activities
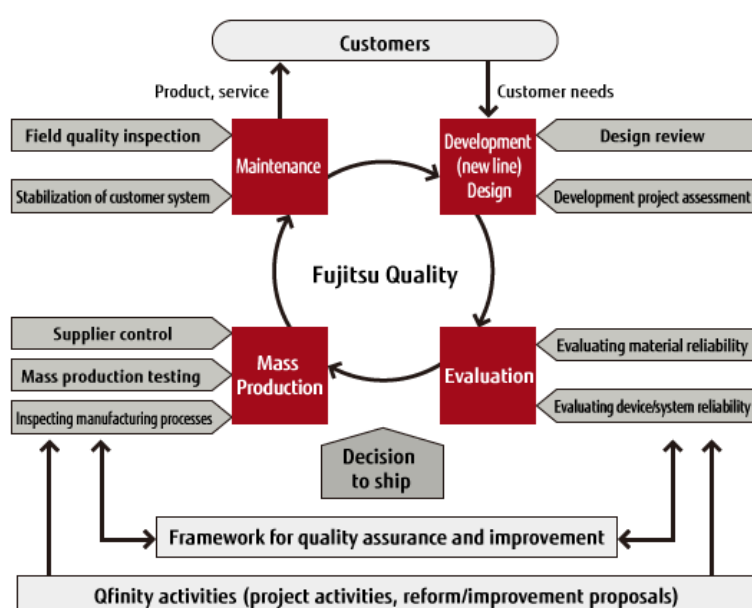
Fostering Experts Who Support Product Safety

As part of efforts to ensure product safety, in fiscal 2003 Fujitsu established its own certification program to train Product Safety Experts who confirm the safety of products. Any products that are not approved as safe by these experts cannot receive clearance for final shipment. The experts check that the products meet the requirements of several safety standards including Japanese, international and Fujitsu's own standards, and also check designs to ensure that proper measures have been taken to correct previously identified product faults.

The concept of averting product accidents at the design stage has become increasingly important. This requires not only familiarity with the accidents or hazards associated with the

Training product safety risk assessors

product, and with other products incorporating similar functions and structures, but also practical knowledge and assessment of any potential risks associated with the nature of the product and the way it is used, viewed from the perspective of the user.

Accordingly, in fiscal 2010 Fujitsu established internal standards for the conduct of product safety risk assessments. We began training Product Safety Risk Assessors and conducting assessments of PCs from the design stage. We plan to broaden the scope of such assessments to further enhance product safety.

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 a level of quality that satisfies 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 2011 surveys covered 8 products, with 8,180 responses collected). 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.

Flowchart for Satisfaction and Quality Surveys
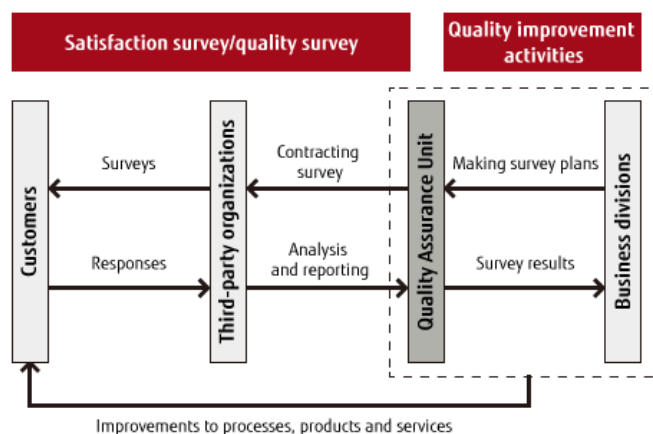
With Our Suppliers

Basic Approach to Suppliers

The Fujitsu Group is committed to building long-term relationships of trust with our suppliers by continuously learning from each other. We also strive to achieve harmonious coexistence with our suppliers so that both of us, as good partners, can further exert our respective strengths.

In addition, we support suppliers' efforts to enhance their BCM (business continuity management) capabilities and compliance.

Promoting Socially Responsible Procurement

Socially Responsible Procurement Initiatives

In procurement, Fujitsu's policy is based on harmonious coexistence with its suppliers, fair and proper evaluation and selection of suppliers, and the promotion of socially responsible procurement activities. Guided by this policy, Fujitsu conducts procurement activities worldwide.

We work together with our suppliers to implement procurement activities grounded in the principles of CSR. In particular, in March 2006, we published our CSR PROCUREMENTGUIDELINES, which state our requirements such as respect for human rights, labor, health and safety and fair trading, asking our suppliers for their strict compliance in writing. Furthermore, in November 2011, we revised our CSR PROCUREMENT GUIDELINES to clarify our stance on the conflict minerals issue.

Since 2007, we have continuously conducted written surveys every year to ascertain progress status and CSR activities systems at our suppliers (of whom there were about 790 in FY 2011).

- FUJITSU CSR Deployment Guidebook [164KB]
- Fujitsu Procurement Policy and CSR Procurement Guideline

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

2. **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 or tolerate such actions.

   - 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.

4. **Assurance of Safety and Quality of Products and Services**
   We maintain high standards of safety and quality in our products and services.

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**

   - **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.

- ○ **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.

Addressing the Conflict Minerals Issue

We view the responsibility of corporations regarding conflict minerals[*1] as an important CSR issue, and work together with Fujitsu Group companies and suppliers to increase the transparency of the supply chain in purchasing activities and to ensure responsible mineral sourcing practices.

*1 Conflict minerals:
Conflict minerals are minerals whose mining or trading finances armed groups and fosters conflict, or are closely related to such issues as human rights abuses or labor issues. The Dodd-Frank Wall Street Reform and Consumer Protection Act enacted in July 2010 requires U.S. and foreign companies listed on U.S. stock exchanges to report the use of conflict minerals such as tantalum, tin, tungsten, gold and any other minerals named by the U.S. State Department to the U.S. Securities and Exchange Commission (SEC).

Informing and Emphasizing the Importance of CSR to Procurement Staff

Through education and training, Fujitsu keeps employees in charge of procurement informed of the importance of CSR-conscious procurement activities. In FY 2011, we held training 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 2012, we will continue similar education to further increase our procurement staff's awareness of CSR issues.

Collaborative Promotion of CSR with Suppliers

Promoting Green Procurement

We have set out the basic requirements for environmentally sound procurement of components, materials and products in the Fujitsu Group Green Procurement Direction and are working with our suppliers on green procurement activities.

The Fujitsu Group requests that all of its suppliers implement an environmental management system (EMS) (subject to third-party certification, in principle), which is designed to ensure that suppliers continuously implement environmental burden reduction. We also ask that our suppliers build a chemical substances management system (CMS) based on the JAMP[*2] guidelines for the management of chemical substances included in products. In regard to CMS, we actually monitor the status of management at 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 have requested that our suppliers make efforts toward limiting and reducing CO_2 emissions and conserving biodiversity. In particular, after explaining the importance of these themes, we ask our suppliers to declare their commitment to these themes explicitly and to start promoting activities with specific goals. Especially, we support our suppliers' efforts in this area by preparing and providing biodiversity conservation guidelines for them which include concrete examples of such efforts at corporations and information on ways of promoting such activities. We also hold seminars related to CO_2 emissions reduction and biodiversity conservation, among other measures.

*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 major disasters and other unexpected contingencies, Fujitsu has made a continuous commitment to strengthening the BCM capabilities of our suppliers since FY 2007. This commitment is based on the belief that strengthening BCM capabilities throughout the entire supply chain is essential.

Each year, Fujitsu conducts a questionnaire survey of its suppliers on how they address BCM. In FY 2011 we surveyed roughly 790 major suppliers by questionnaire, including questions about how they have coped with the Great East Japan Earthquake. We analyzed the responses from around 1,740 sites and provided feedback to suppliers. In March 2012, as part of efforts to strengthen BCM capabilities in the supply chain, we held a briefing on BCM for suppliers, attended by 630 individuals representing around 420 companies. At the briefing, we shared information about examples of responses to the Great East Japan Earthquake and analysis results, along with lessons learned from the flooding in Thailand, in an effort to further promote BCM activities.

Furthermore, in FY 2011, we held a total of five training seminars on formulating business continuity plans (BCP) for around 210 main solution-related suppliers. In January 2012, each of these suppliers submitted reports concerning the status of BCP formulation, promotion of measures and other topics. Fujitsu assessed the reports and provided feedback.

In FY 2012, we plan to hold a training seminar for suppliers who have already attended BCP training seminars. The seminar will focus on improving their BCPs as well as related training drills.

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.

In addition, in February 2012, we revised our agreements with suppliers by adding provisions on the elimination of anti-social forces and other such groups, for the purpose of preventing damage by anti-social forces (and avoiding any encouragement of their activities). The Fujitsu Group will have no relationship whatsoever with anti-social forces, including through suppliers.

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 2011
(For suppliers of software development, services, or hardware manufacturing)

- Information security seminars (Oct.-Nov. 2011) A total of some 1,030 companies (some 1,280 individuals) attended.
- Questionnaires to suppliers on information security measures (Feb. 2012 through Mar. 2012) About 1,740 companies
- Information security audits (on-site) of our suppliers (Apr. 2011 through Mar. 2012) A total of some 180 companies

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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.

Partnerships with Our Suppliers

In 1997, Fujitsu established its suppliers' performance review (SPR[*3]) system, in which our about 190 core suppliers are comprehensively evaluated for their products and efforts from the standpoint of quality, technology, price, supply, the environment and reliability. Since FY 2008, we have added the results of our survey on CSR, information security and BCM to the "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[*4]) in 2004. Since 2008, we have reviewed about 1,320 solution-related system supplier companies and provided the results as feedback to about 220 of our main suppliers.

With our main suppliers, we hold business review meetings (QBR[*5]) 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 procurement strategies.

*3 SPR:
Suppliers' Performance Review

*4 PPR:
Partners' Performance Review

*5 QBR:
Quarterly Business Review

Fujitsu Supplier Day

Since 1997, we have held Fujitsu Supplier Day to strengthen our partnership with suppliers. 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 2011 event was held in January 2012 and was attended by approximately 790 representatives from some 350 domestic and overseas suppliers.
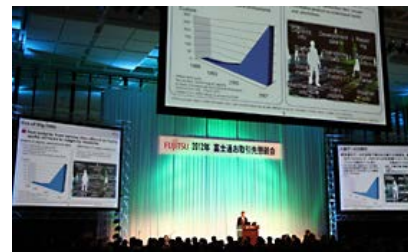
Fujitsu Supplier Day

Communication with Suppliers

Fujitsu assists with the activities of suppliers through such measures as providing biodiversity conservation guidelines to suppliers, and holding seminars related to CO_2 emissions reduction and biodiversity conservation. In FY 2011, we held a program for Satoyama (Urban Woodlands) preservation and encouraged participation by suppliers. This program gave our suppliers first-hand experience of biodiversity conservation activities.

In 1997, Fujitsu established its suppliers' performance review (SPR) system, in which about 190 core suppliers are comprehensively evaluated from the standpoint of quality, technology, price, supply, the environment and reliability. We provide feedback on the results of this performance review by directly sharing the results of our evaluation with suppliers at business review meetings and other events.

A participant in the program for Satoyama (Urban Woodlands) preservation hosted by Fujitsu

"My company also works to develop eco-friendly products, but this type of activity providing direct experience of biodiversity conservation was a first for me. As the event was held during a holiday, I participated with my daughter. She said, The snails and praying mantises were huge, and I was amazed by the number of the participants. I'd like to join in again! I believe that the event showed my daughter the importance of nature and how the natural environment is protected through the work of many people. Going forward, I would like to continue working to conserve biodiversity in order to leave our children with a rich natural environment."

DELTA ELECTRONICS (JAPAN), INC.
Sales Department No.5,
Network Products Sales Group
Fumiko Tokunaga

On Fujitsu's SPR system

We have received a fair and objective assessment of our activities in terms of quality, technology, price and supply, as well as the environment and reliability, through Fujitsu's SPR system. As a result, we now have a clear understanding of our strengths and weaknesses as seen by customers. We will put the assessment feedback to good use in improving various issues and setting goals. Looking ahead, we will remain committed to promoting continuous improvements and will strengthen and maintain our relationship of harmonious coexistence with Fujitsu.

Kunimori Kagaku Co., Ltd.
Director
Sojiro Ohashi

For Our Shareholders and Investors

Our Basic Stance

Based on the statement "We seek to continuously increase our corporate value" in the Corporate Values of the Fujitsu Way, to raise corporate value and meet the expectations of shareholders and investors, we aim to achieve long-term sustainable growth and profit, and pursue strategic business expansion and focused management, while maintaining a sound financial standing.

We also provide timely and accurate disclosure of our corporate activities and financial information, improving management transparency so that shareholders and investors can better understand how well we perform in increasing corporate value.

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.
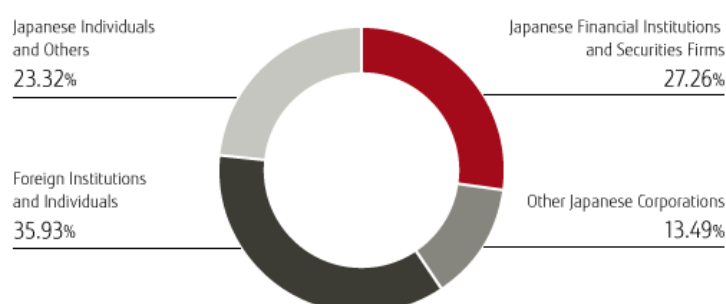
Basic Policy on Returns to Shareholders

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.

In FY 2011, operating income fell below that of the previous fiscal year. In addition to a lagging recovery in ICT investment both in and outside of Japan, income was adversely affected by the impact of the historic high valuation of the yen and the Thai floods. Nevertheless, net income remained at a steady level, reflecting improvements being made to profitability in the Company's services business outside of Japan. Moreover, the Company's financial condition is steadily improving, with interest-bearing debt at its lowest level in the past decade.

As a result, the Company paid a year-end dividend of 5 yen per share as initially planned. Including the interim dividend of 5 yen per share, the annual dividend was 10 yen per share.

Equity Shareholdings by Type of Shareholder (as of March 31, 2012)

Japanese Individuals and Others: 23.32%
Japanese Financial Institutions and Securities Firms: 27.26%
Foreign Institutions and Individuals: 35.93%
Other Japanese Corporations: 13.49%

*1:
The 118,892 thousand shares of Fujitsu Ltd. stock held by Fuji Electric Co., Ltd. and its consolidated subsidiaries as retirement benefit trust assets are categorized under the shareholdings of "Other Japanese Corporations."

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 briefings on management policy and business 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. In FY 2011, we held about 930 meetings for institutional investors and securities analysts (50% of them outside Japan and 50% within Japan).

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 presentations 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. This feedback is used as a reference for various measures.

- IR website for private individuals (in Japanese)

Publication on IR websites

Fujitsu publishes information that we would like our shareholders and investors to know on our Japanese and global 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 shareholders' meetings.

- Japanese IR site
- Global IR site

Main Results of IR Activities in FY 2011

		2011 4	5	6	7	8	9	10	11	12	2012 1	2	3
In Japan	Annual Shareholders' Meeting				●Annual Shareholders' Meeting								
	Management Direction Briefing			●Management Direction									
	Financial Results Briefings	●Year-end Financial Results		●1Q Financial Results			●2Q Financial Results			●3Q Financial Results			
	Business Briefings						●PC ●R&D					Mobile Phones●	
Outside Japan	Roadshow		●North America		●Europe		●Asia	●North America					

In FY 2011, we held about 930 briefings for institutional investors and securities analysts (50% of them outside Japan and 50% within Japan).

Governments & Industry Groups (Public Policy)

Activities Related to Public Policy

Fujitsu participates in government and industry group councils, committees and forums, 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 and promotion of international collaboration.

In FY 2011, Fujitsu worked with about 1,500 partners such as industry groups, research organizations, and NGOs on activities including the following.

International Industry-Academia Collaboration on Science and Technology

In October 2011, the annual meeting of the Science and Technology in Society (STS) forum was held in Kyoto, Japan. This international conference, which provides a forum for discussions on issues concerning science and technology, was attended by about 800 people representing 80 countries and regions, as well as international organizations and other bodies.

© STS forum 2011

At the conference, Mr. Yamamoto, President of Fujitsu Limited, gave a lecture on the theme of developing and providing supercomputers as a valuable means of solving various issues in fields such as disaster readiness, the environment and life sciences. International discussions were held on the importance of science and technology and the promotion of industry-academia collaboration.

Studying Regulations Appropriate for the Times

Laws and regulations are established for the purpose of protecting the nation's citizens and supporting smooth and active economic activity. However, these laws and regulations need to be reviewed in light of technological progress and changes in society.

The Japanese government, under the auspices of the Subcommittee on Regulatory and Institutional Reforms established by the Government Revitalization Unit , is moving to review outmoded regulations. Directors from Fujitsu are among the members of the working group tasked with addressing this issue. As a result of its investigative work in FY 2011, the subcommittee, reflecting on the massive disaster that recently struck Japan, proposed regulatory reforms that will promote renewable energy. Reform targets include regulations governing procedures for installing solar and geothermal power generating equipment, as well as smart meter standardization.

Approach to Social Contribution Activities

The Fujitsu Group will create new value and knowledge together with our customers, communities, and people worldwide through ICT, 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, Support for Challenges, Community Engagement and Environment.

Volunteer Activity Support System

Fujitsu has set up a system for supporting volunteer activities undertaken by employees.

- System of leave of absence for participation in Japan Overseas Cooperation Volunteers or Senior Overseas Volunteer: up to three years
- Accumulated leave: Five days paid leave per year, can be accumulated up to twenty days (to be used for specified purposes including volunteer work)

Example Activities in Japan and Overseas

The following are examples of Fujitsu Group company activities worldwide.

Examples of FY2011 Group Company Activities in Japan

Public Viewing Using Two-Way Communications
Kawasaki Frontale Co., Ltd.

Community Engagement

Virtual supporters' seats at Todoroki Stadium

Children and their fathers cheer their teams at the Rikuzentakata viewing venue

On March 10, 2012, Kawasaki Frontale Co., Ltd., the company behind the J1 Soccer League team that bears its name, made it possible for soccer fans in Rikuzentakata City, which suffered enormous damage in the Great East Japan Earthquake, to join the crowd at the opening match of the season. In the first attempt of its kind, a huge screen showing supporters in Rikuzentakata watching the game joined spectators at the Todoroki Stadium for two hours for the game between Kawasaki Frontale and Albirex Niigata. This two-way participation using Fujitsu's video transmission technology was a novel departure from standard public screenings. Instead of supporters merely watching a game being played elsewhere on a large screen, fans from 400 km away joined the crowd from their virtual seats at Kawasaki's Todoroki Stadium.

Those who attended the viewing venue in Rikuzentakata expressed tremendous gratitude, remarking that the children enjoyed the experience greatly, and thanked the organizers for the event, which left them feeling reinvigorated.

Family Robotics Workshop as Disaster Support Activity
Fujitsu Computer Technologies Limited

ICT for Everyone   Community Engagement

In December 2011, Fujitsu Computer Technologies Limited, a Group company specialized in the development of embedded systems, held the first of a series of Family Robotics Workshops at the Morioka Children's Museum of Science (Iwate Prefecture) as a disaster support activity.

The concept behind the activity is to let children living in an area affected by the recent disaster experience the joy of building something with their own hands. With the cooperation of the Iwate Prefectural Office, the company sends four to five employees each time to serve as teachers and trainers. These staff members support every aspect of the firsthand creative process, from the assembly of a robot specially designed for this workshop to computer

Participants assembling a robot

programming to control its movement. Lecturers and students from Iwate Prefectural University and Ichinoseki National College of Technology are also on hand to assist the workshop.

In FY2011, the workshop was held at four locations-the cities of Morioka, Kitakami, Ichinoseki, and Miyako - with 60 families taking part.

The Fujitsu Group plans to continue holding the workshops every month as an opportunity to provide support to those affected by the disaster in its own unique way.

Omoide Salvage Album Online
NIFTY Corporation

Community Engagement

Web service provider NIFTY Corporation is using information and communications technology to support the Omoide Salvage Album Online project. The project was launched in Yamamoto, a town in Miyagi Prefecture that suffered enormous damage as a result of the Great East Japan Earthquake. A disaster information support team from the Japan Society for Socio-Information Studies set up the project with the aim of returning around 750,000 photos that were damaged by the tsunami. While volunteers wash and dry the damaged photos, NIFTY uses cloud technology to add digitized reproductions of the photos to a database. Victims who lost their possessions in the disaster can then easily search for their lost photos and albums. Fujitsu will continue to utilize ICT to support efforts to reunite disaster victims with photos recalling happier times and fond memories thought lost forever.

Searching for photos

Ashio Copper Mine Afforestation Project
Fujitsu Advanced Printing & Publishing Co., Ltd.

Environment

Fujitsu Advanced Printing & Publishing Co., Ltd. (Fujitsu APRICO), a company with operations related to paper for printing and copying, recently celebrated the 30th anniversary of its founding. To mark the occasion, Fujitsu APRICO held a tree-planting event at the Ashio Copper Mine in Nikko City, Tochigi Prefecture on May 21, 2011.

Fujitsu APRICO opted to carry out the tree-planting to show its appreciation for paper and to give something back to the natural environment at the site. By planting trees to restore green vegetation on the hills at the former copper mine, Fujitsu APRICO also showed its commitment to environmental protection and social contribution activities.

Although planting on the steep terrain was hard work, each of the 50 participants planted two Quercus serrata saplings, in the hopes that the 100 deciduous oak saplings will grow into tall sturdy trees in five to ten years' time.

Fujitsu APRICO employees working on the steep slopes

Clearing Trees to Help Protect the Environment
Fujitsu FIP Corporation

Environment

Fujitsu FIP Corporation, a provider of a broad range of ICT services, held an environmental protection event on May 21, 2011 at the Fujitsu FIP Forest in Tanzawa, Kanagawa Prefecture. A total of 23 people, including the president of FIP and event staff, took part in the tree-clearing activity.

Under the guidance of Kanagawa Prefecture forestry instructors, participants were divided into two teams: one to thin the forest and the other to learn about the natural environment. The volunteers cleared a total of 27 trees, and everyone felt a thrill the moment each tree toppled, letting in sunlight to the previously shaded ground. Fujitsu FIP's Tanzawa Project, which includes forest volunteer activities, received the "2011 Fujitsu Group Environmental Contribution Award and Encouragement Award." The awards were received in recognition of its role in raising awareness concerning environmental protection within the Fujitsu Group and its contribution to promoting such initiatives.

Employee volunteers in the tree-clearing project

Toppling a tree

Environment Workshop and Plant Tour
Fujitsu Semiconductor Limited

Environment   Community Engagement

On November 17, 2011, Fujitsu Semiconductor Limited, which specializes in the manufacture of LSIs, showed 15 children from nearby elementary schools the environmental initiatives it is taking at its Mie Plant. First, while performing magic tricks, the company's environmental management staff briefed the pupils on the plant, the company's ties to the local community, and its environmental activities. This was followed by a tour of the plant, in which the children observed the sorting of waste materials, the conversion of biological waste to fertilizer, and the treatment of wastewater. The children were pleased with the easy-to-understand explanations as they diligently took notes and asked questions, and found the experience extremely rewarding.

Examples of FY2011 Group Company Activities Overseas

Volunteer Activities for a Parent-Child Support Group
Australia: Fujitsu Australia and New Zealand (FANZ)

Community Engagement

CLAN Midland Corporate Volunteer Day - WA, Australia

In November 2011, the Perth office in Western Australia (WA) of Fujitsu Australia and New Zealand (FANZ) got creative for CLAN Midland for a Corporate Volunteer Experience. Sixteen WA employees assisted CLAN Midland and United Way in their Education Community Impact Strategy. The day was definitely one of hands on therapy - constructing "brains" to assist in the education of new parents on the importance of brain development in newborns and toddlers. Using only salt, freezer bags and stockings, 35 information packs were produced. These essential packs were planned to give new mothers in mostly at-risk and lower socioeconomic areas the ability to seek better education and better understand the importance of play, music and stimulation to their children's development. CLAN Midland was established in 1993 and is committed to supporting families with young children to function independently making healthy, positive choices for themselves. They believe in a flexible and informal approach to family support that recognizes that all families are different and that families have the right to choose their own direction. FANZ's volunteers worked as part of a supportive team in an educational and fulfilling experience.

Fujitsu UK & Ireland's commitment to CSR through Business in The Community (BITC)
UK: Fujitsu UK & Ireland

Fujitsu UK & Ireland has a longstanding commitment to CSR, and has been a member of BITC since 1999. BITC is a business-led charity whose president is His Royal Highness the Prince of Wales, and its role is to encourage and promote responsible business practices among its 850 member organizations. It asks its members to work together to transform communities by tackling issues where business can make a real difference, and offers practical support to help them to integrate responsible business practices wherever they operate.

BITC members with His Royal Highness the Prince of Wales (center)

One of BITC's most recent initiatives has been the creation of the Business Connectors Program, which aims to increase the positive impact of business in local communities by harnessing expertise from business. Business Connectors are a powerful network of secondments recruited from business and supported and trained by BITC to tackle social issues in local neighborhood areas, and in so doing, create a powerful new development experience for talented business people. The aim is to create a nationwide network of over 550 Business Connectors over five years in 160 areas of need across England.

Fujitsu UK & Ireland has been involved with the Business Connectors Program since its inception in 2011, and has developed a specifically designed social networking platform called BITC Connect hosted in the Cloud. Fujitsu is also responsible for ongoing day-to-day support. This has been funded as a CSR not-for-profit initiative, a conscious decision designed to put Fujitsu at the front of UK & Ireland corporate businesses as part of this critical program, and to help grow market presence, executive relationships and showcase its cloud technology.

Promoting Learning & Education, and Cultural and Sponsorship Activities

Management of the Japan-America Institute of Management Science (JAIMS)

Challenges

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. 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.

Since the establishment of JAIMS, Fujitsu has not only supported the Institute financially, but has also established a dedicated support organization within the Company. This unit makes a social contribution through promotion of education and international exchanges by providing ongoing support in Japan, which includes advertising and publicity for academic programs, advisory support for students studying abroad, planning seminars, and accepting foreign interns.

To date, some 23,000 people from 55 countries have participated in JAIMS programs, including 3,000 in various academic programs and 20,000 in overseas seminars. Participants go on to play active roles in business around the world using the cross-cultural communication skills, management knowledge, and personal global networks acquired through their study experiences at JAIMS.

JAIMS students

In 2006, JAIMS was awarded the Japanese Foreign Minister's Commendations in recognition of its contribution to promoting international relationships for more than 30 years.

- [Japan-America Institute of Management Science (JAIMS)](#)

Fujitsu Scholarship Program

Challenges

Fujitsu established the Fujitsu Scholarship Program in 1985 to commemorate the 50th anniversary of its founding. The aim was to foster elite business leaders who, through their deep understanding of Japan's culture, society, and business methods will connect Japan with the rest of the world. Initially, the program offered scholarships for people to study Japanese Management at JAIMS. In 1996, we expanded it to include other academic programs. Since then, the program has provided opportunities for businesspersons from the Asia-Pacific region to study in the JAIMS management program.

Every year, we receive many applications for Fujitsu scholarships. Scholarship recipients are selected based on criteria that include English language skills, academic record, and work experience, as well as a desire to make a contribution to the development of their home country. Today, applications are open to people in 18 nations. As of April 1, 2012, the cumulative total of recipients stood at 430 persons.

Coordinated with Fujitsu Group companies in the Asia-Pacific region, the Fujitsu Scholarship Program contributes to society by providing education firmly rooted in international society. It promotes cultural exchanges, mutual understanding, and the fostering of business leaders in the region.

Scholarship students

- [Fujitsu Scholarship](#)

Support for Mathematical Olympiad and Olympiad in Informatics

Fujitsu supports the Mathematical Olympiad Foundation of Japan and the Japanese Committee for the International Olympiad in Informatics (the latter being a non-profit organization) to help discover and foster valuable human resources who will play leading roles in the future development of society.

The Mathematical Olympiad Foundation of Japan was established in 1991 in order to discover gifted mathematicians for selection and entry as national representatives in the International Mathematical Olympiad (IMO) and to further develop their skills. The foundation is also committed to helping improve and promote education in mathematics from an international perspective. Fujitsu provided the basic funds for the establishment of the Foundation along with two other companies and one individual. It provides additional support including offering supplementary prizes to the top performers at the Japan Junior Mathematical Olympiad (JJMO) and the Japan Mathematical Olympiad (MMO), the latter from which national representatives for the IMO are selected.

The Japanese Committee for the International Olympiad in Informatics was established in 2005 to train human resources in support of Japan's mathematics and information science sector. It provides support for participants of the International Olympiad in Informatics (IOI), a programming contest for junior and senior high school students.

As a supporting member, Fujitsu provides assistance in the committee's operation, and presents supplementary prizes to the top performers at the Japanese Olympiad in Informatics, from which national representatives for the IOI are selected.

11th Japan Informatics Olympiad Award Ceremony

Supporting a Programming Contest for Technical College Students

The programming contest is a competition for technical college students from all over Japan. Drawing on the knowledge they have acquired in their studies, participants compete with one another using their resourcefulness and skills in information processing technology.

Fujitsu has supported this contest as a special corporate sponsor since the 6th annual event in 1995. In 2009, in commemoration of the 20th anniversary of the founding of this contest, Fujitsu established the Fujitsu Special Prize, and has been presenting personal computers to members of the winning team as an additional prize ever since.

Technical College 22nd Programming Contest

Since the 21st Contest, Fujitsu has invited the winning team to its Kawasaki Plant. In addition to presentations and demonstrations by the students, we arrange discussions with a variety of Fujitsu employees, including engineers from the technology division. These visits are beneficial to both Fujitsu employees and the students. Our employees are impressed by the unrestrained and flexible ideas of the students, while visiting the facilities provides an excellent opportunity for the students to observe the cutting edge of software development and project management methods.

Through this programming contest, Fujitsu is committed to encouraging the growth of the young ICT technologists, who will in turn support future society.

Fujitsu Kids Project: Shaping Dreams into Reality

In 2007, at a time when Japanese society was becoming increasingly concerned about children's lack of interest in math and science, the Fujitsu Group launched the Fujitsu Kids Project. Based on the idea that one of a company's missions is to foster the next generation of human resources, the project seeks to convey to today's young people the joy of creating products and the wonder of technology.

To expand the project so that it covers the whole of Japan and reaches out into the future, the Group promotes the project primarily through its own website. This dedicated website, named "Fujitsu Kids: Shaping Dreams into Reality," is designed to make learning fun for children. Its wide variety of contents include answering questions such as "What is a super computer?" as a means of communicating information on the latest technology and the joy of making things to children in a way that is easy to understand. Other website content that is linked to the school curriculum includes information on environmental conservation activities, universal design, and how a computer works.

In addition to providing information via the website, the Fujitsu Kids Project holds events where children take part in activities that give them firsthand experience of the joys of science and technology.

Group photo from Fujitsu Kids Event 2010

In the summer of 2010, we held the Fujitsu Kids Event 2010 at our Kawasaki Plant in cooperation with the Japanese Committee for the Olympiad in Informatics. The aim of the event was to stimulate interest in technology and to nurture participants' dreams for the future. The fourth such event, it was attended by around 100 children who were selected at random from a large pool of applicants. They enjoyed learning how a computer works through games and other fun activities.

In December 2007, we published the "Fujitsu Kids Content Creation Handbook," which has since been used by many people wanting to learn how to create quality content. It contains know-how acquired by Fujitsu in the process of constructing the Fujitsu Kids Website. The aim of the handbook is to disseminate information on methods of making web content that is suitable for children and developing universal design for children. The Fujitsu Kids Content Creation Handbook received a "2008 Good Design Award."

Fujitsu's initiatives aimed at conveying to children the joy of creating things and the wonder of technology have not gone unnoticed. The Fujitsu Kids Project won the Grand Prize in the Children's Division of the "2007 Goo Environment Awards" sponsored by NTT Resonant Inc., and also won the supreme award in the Website Division of the "6th Consumer Education Materials Awards" sponsored by the National Institute on Consumer Education.

In 2008, we also received the Grand Prize in the "Gadget, Animation & Technical Innovation Division" in the Second Corporate Website Grand Prix. The award acknowledged the unique characters and tools incorporated in the Fujitsu Kids website.

Cultural and Sponsorship Activities

Community Engagement

Japan Science & Engineering Challenge

Fujitsu is a special sponsor of the Japan Science & Engineering Challenge (JSEC), a research competition open to senior high school students and technical college students from throughout the country. The annual challenge, which aims to foster young people who will form the foundation of Japan as a science and technology nation, is highly regarded among industry circles. The winner of the Japan Challenge takes part in the International Science and Engineering Fair, the biggest event of its kind in the world, held each May in the United States. Some 1,500 students from more than 50 countries take part in the fair.

Fujitsu Concert Series

Since 1987, Fujitsu has sponsored the annual Fujitsu Concert Series, which invites the world's top conductors and orchestras to perform in Japan. Together, these foreign musicians and stunning soloists captivate the hearts of the Japanese audience. The Fujitsu Concert Series is held in line with our policy of providing ongoing sponsorship for popular first-rate orchestras from overseas.

Fujitsu Presents Special Concert NHK Symphony Orchestra : Beethoven's Ninth Symphony

Fujitsu is a special sponsor of concerts performed by the NHK Symphony Orchestra, centered on Beethoven's Ninth Symphony. This concert has become an annual tradition that is held at the end of the year in Tokyo's Suntory Hall.

Fujitsu Concord Jazz Festival

Fujitsu has held the Fujitsu Concord Jazz Festival since 1986. This long-running jazz festival is unparalleled in Japan. The concert has previously been held in either October or November, but from 2012 it will be held in either May or June during the invigorating early summer season in Japan.

The festival came about as a Japanese version of the Concord Jazz Festival, one of the three major jazz festivals that used to be held in the United States. With a program of predominantly mainstream jazz performances, the Fujitsu Concord Jazz Festival is an extremely popular event on Japan's jazz music calendar.

The Fujitsu Cup Masters Tournament

Since 1993, Fujitsu has been sponsoring the Fujitsu Cup Masters Tournament, a Japanese chess (shogi) tournament for players 40 years of age and over, and the only senior-level shogi competition of its kind. The ten players selected to play in the tournament include previous titleholders through to older players who still play competitive chess. They compete with one another in the knockout-style tournament to become champion. All matches are streamed live on the Internet. The championship match is held at the Asahi Yurakucho Hall, in front of a randomly chosen audience.

Contributing to Society through Sports

The Fujitsu Group promotes sports as a building block of a sound society. Company sports encompass the track and field team, the Frontiers American football team, and the RedWave women's basketball team. These organizations strive daily to improve their skills, embodying Fujitsu's proactive spirit.

Track and Field Team

Challenges · Community Engagement

Established in 1990 with the slogan "fostering athletes that can compete globally," the Fujitsu Track and Field Team has been a leader in Japanese track and field ever since. The team has produced Japanese representatives for five straight Olympics-from the 1992 games in Barcelona to the 2008 games in Beijing. The top athletes that belong to the team actively participate in track and field clinics throughout Japan, helping to raise the level of track and field in Japan as well as fostering sports development in general.

Photo courtesy of Osamu Ikeda

Frontiers American Football Team

Challenges · Community Engagement

Fujitsu named its American football team "Frontiers" subsequent to its establishment in 1990, expressing its commitment to being a trailblazer for American football in Japan. Under the slogan "To be the best in Japan's amateur league, and at work," the Fujitsu Frontiers have become a powerful team. In 2009, the team was runner-up in the Japan X Bowl, the Japan Shakaijin (working adults) American Football League championship game. In 2010, the team won its third victory in the Pearl Bowl, the X-League tournament for the 12 East Division teams. As a Kawasaki Hometown Sports Promotion Partner, the Fujitsu Frontiers are currently promoting flag football as one of their regional contribution activities.

© FUJITSU SPORTS

RedWave Women's Basketball Team

Challenges · Community Engagement

Following its establishment in 1985, Fujitsu named its women's basketball team "RedWave" with the goal of becoming like a red wave that poses a threat to even the most formidable of opponents. The team took its first victory at the 72nd All Japan Basketball Tournament (Empress Cup) in 2006, holding on to the top spot for the three straight years through 2008. RedWave fulfilled a long-held ambition in fiscal 2007 when it won its first Women's Japan Basketball League title (2007-2008 (ninth) season). In its current role as a Kawasaki Hometown Sports Promotion Partner, the team holds basketball clinics for grade school students in the city of Kawasaki to support physical education programs, as part of efforts to encourage sports in the local community and to build up the foundation of Japan's basketball world.

Photo courtesy of NANO Association

Support for Kawasaki Frontale

Community Engagement

A Japan Professional Football League member since 1999, the Kawasaki Frontale soccer team's hometown is the city of Kawasaki. The team works to further the development of professional soccer, young local athletes, and sports culture.

© KAWASAKI FRONTALE
Photo courtesy of Suguru Ohori

Sponsorship Activities

Community Engagement

YMCA International Charity Runs

The YMCA International Charity Runs co-sponsored by Fujitsu and hosted by YMCA chapters throughout Japan and the YMCA Foreign Community Supporting Committee are a sport event intended to provide financial support to educational programs for challenged children. The event brings together runners, companies, and community volunteers. All of the proceeds from charity run participation fees and sales go to the YMCA-run educational programs.

Fujitsu Ladies Golf Tournament

We have sponsored the Fujitsu Ladies Golf Tournament for professionals and amateurs since its inception in 1980. Held every fall since 1983, it is among the well-established tournaments in the women's golf world in Japan.

Izumo All Japan University Ekiden (Road Relay)

Since 1989, 21 teams have battled it out each year in the Izumo All Japan University Ekiden, one of the big three collegiate road relay races in Japan. By supporting this competition, Fujitsu is helping to promote university students' sports activities.

International Support and Disaster-relief Activities

Supporting Tropical Rainforest Restoration Activities through Beverage Sales

As part of the Fujitsu Group's social contribution and environmental activities, Fujitsu sells its own private brand beverages to employees, a portion of the proceeds of which are directed to environmental activities. These funds primarily support tropical rainforest restoration activities underway at the Fujitsu Group Malaysia Eco Forest Park, as we strive to raise awareness of social contribution activities among individual employees. A total of around 1.1 million beverages have been sold since the start of this initiative.

Supporting Relief Efforts from Flooding in Thailand

The Fujitsu Group provided ¥10 million in donations to assist recovery in areas of Thailand devastated by flooding that struck from July 2011 to January 2012. The Group also provided free system restoration support for local customers damaged by the disaster.

Supporting Relief Efforts Following Typhoon No. 12

Fujitsu provided a total of ¥2.5 million in monetary donations as well as PCs to assist recovery and restoration efforts in Japan's Wakayama, Nara and Mie prefectures after damage caused by mudslides and storm conditions in the wake of Typhoon No. 12 in August 2011.

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.

In December 2011, employees at the Fujitsu Shiodome headquarters collected and sold secondhand books and DVDs.The proceeds were donated to support the activities of SHAPLA NEER, a Japanese NPO with activities worldwide.

Management

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.

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 and determining their compensation, and to ensure the appropriateness of the compensation system and levels. The Executive Nomination and Compensation Committees act as consultative bodies 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.
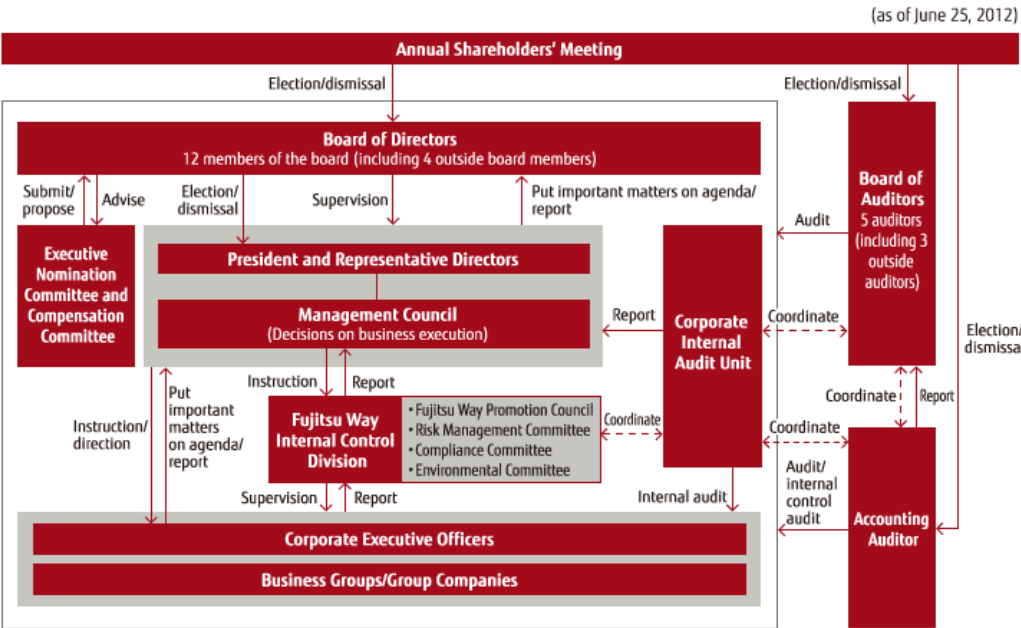
Enhancing Corporate Governance

Basic Stance

We have established the Fujitsu Way, consisting of a Corporate Vision, Corporate Values, Principles, and Code of Conduct, which guides the Group and its employees in their daily activities.

We pursue the sound and efficient execution of our business activities by striving to accelerate the penetration and implementation of the Fujitsu Way and to promote structures and procedures to ensure that business dealings are appropriate throughout the Group.

Status of Implementation

The Company, through a resolution by the Board of Directors, has adopted the following Basic Stance on Internal Control Framework (resolved on May 25, 2006, and revised on April 28, 2008). In terms of putting an internal control system in place, an organization with executive responsibility for internal control has been established. The Company is, moreover, pursuing initiatives to implement an even more robust operational execution structure by reviewing and revising its regulations and business operations.

To accelerate the penetration and implementation of the Fujitsu Way and ensure the appropriateness of business operations, Fujitsu is promoting the implementation and evaluation of its internal control structure. This effort is led by the Fujitsu Way Promotion Council, which reports directly to the Management Council. In addition to the Fujitsu Way Promotion Council, three other groups were established directly under the Management Council and tasked with pursuing more robust and efficient business execution: the Risk Management Committee, the Compliance Committee, and the Environmental Committee.

The functions of each are described below.

Fujitsu Way Promotion Council

The Council promotes the embedding and implementation of the Fujitsu Way. In addition, it has also been promoting Project EAGLE, which is a Group-wide activity for building an internal control system for effective and reliable financial reporting in compliance with the Financial Instruments and Exchange Act, and by which the company has been able to promote the implementation and evaluation of internal control. By establishing a promotion organization dedicated to this endeavor, the Council has been working to implement this internal control system across the Group. Along with improving controls over financial reporting, the goals of the project also include achieving greater efficiency through the pursuit of business process reforms across the Group.

Risk Management Committee

With respect to risks associated with the Company's business activities, Fujitsu has established rules and guidelines for risk management, and designated managers at Fujitsu Limited and Group companies whose responsibilities are to promote risk management. It has also established risk management systems and processes for the Fujitsu Group as a whole that are designed to prevent and minimize potential risks as well as address any risks that have emerged, while promoting mutual collaboration within the Fujitsu Group. These systems and processes are subject to continuous improvements. The Risk Management Committee reports to the Management Council and the Board of Directors on significant risks and holds discussions with them on countermeasures. It also seeks to identify the root causes of these risks and propose and execute measures to prevent their reemergence. In addition, Fujitsu continues to promote Business Continuity Management to ensure its ability to carry out its corporate social responsibilities through the continuity of its major business operations, and its ability to provide a stable supply of the high-performance, high-quality products and services that its customers need in the event of unforeseen major disasters.

Compliance Committee

This committee promotes adherence to social norms and corporate rules as well as the creation of corporate systems and initiatives for fostering a corporate culture of respect for norms. In conjunction with efforts to maximize compliance, a helpline system was set up as a confidential liaison point to receive reports from employees and provide guidance to them on matters of conduct.

Environmental Committee

This committee is responsible for promoting the environmental protection activities of the Fujitsu Group, which are based on the Fujitsu Group Environmental Policy and the Fujitsu Group Environmental Protection Program.

For further details, please refer to the following document.

- Corporate Governance (Fujitsu Limited Annual Report 2012, pp. 076-088) [471KB / 13 pages]

Risk Management

Through its global activities in the ICT industry, the Fujitsu 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, taking steps to prevent the occurrence of these risk events, and establishing measures to minimize the impact of such events if they do occur and to prevent their reoccurrence are 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.
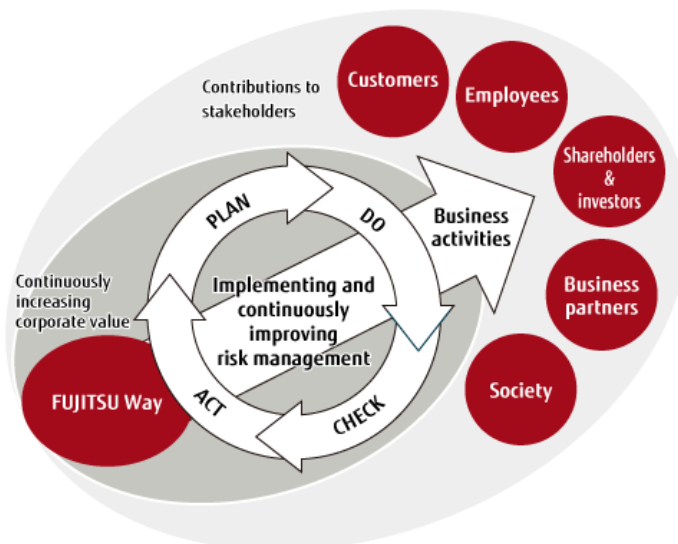
Business Risks

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[1]

- Economic and financial market trends

- Changes in customers' ICT investment trends and being unable to maintain lasting ties with customers

- Competitors' strategies and industry trends

- Procurement, alliances and technology licensing

- Public regulations, public policy and tax matters

- Deficiencies or defects in products and services, information security, project management, investment decisions, intellectual property rights, human resources, environmental pollution, credit risks, etc.

- Natural disasters and unforeseen incidents

*1 :
These are just some of the risks of doing business. More detailed risk-related information can be found in our earnings report, securities reports and other published reports.

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 materialize, forming a risk management structure for the entire Group.

Board of Directors

Management Council

Risk Management Committee

Corporate Risk Management Office

Each Business Group

Appoint risk management executives

Each Group Company

- Establishing risk management committees, etc.
- Appointing risk management executives

The Risk Management Framework

The Risk Management Committee is responsible for grasping the risk management situation in all Fujitsu business groups and Group companies in Japan and overseas, 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.

Deciding policies and processes → Applying processes → Monitoring and reviewing → Continuously improving

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.

Assessment	• Identify risks • Analyze and evaluate

Handling risks that threaten
- Rapid escalation
- Rapid response by multiple divisions, minimize impact
- Propose and implement measures to prevent recurrence

Countermeasures	• Study and implement measures to eliminate, prevent or reduce risks • Consider transferring or retaining risks and act accordingly

Monitoring, reviewing, and continuously improving

Group-Wide Disaster Preparedness

To build a robust disaster-preparedness network and enhance our business continuity response capabilities, the Fujitsu Group has created a Group-wide disaster-preparedness organization. In Japan, since 1995 we have carried out annual nation-wide disaster-response drills in conjunction with Disaster Preparedness Day on September 1st, assuming an earthquake with its epicenter under the capital or off the Tokai coast. In FY 2011, based on what was learned in responding to the Great East Japan Earthquake, we assumed major damage from an earthquake directly beneath the capital-an event seen as increasingly likely in the next few years-and our drills focused on strengthening the initial response of, and coordination between, our temporary Central Headquarters for Disaster Recovery, set up in the Kansai region, and Fujitsu Group sites affected by the simulated disaster.

Additionally, to ensure both personal injury and property damage are kept to a minimum, Fujitsu Group sites also conduct their own disaster-preparedness inspections, based on independent checklists established at each location. For those locations that are critical to business continuity, an internal team comprised of staff from our environmental management, facilities management, and risk management divisions will go out to verify the results of such inspections, providing guidance regarding possible improvements and monitoring progress. The activities of this Fujitsu Group joint team are intended to verify legal compliance, and to help prevent accidents arising from fires, natural disasters, and aging structures.

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.

To ensure that even when such risks occur, we can continue to provide a stable supply of the high-performance, high-quality products and services our customers need, the Fujitsu Group has established a Business Continuity Plan (BCP), and promotes Business Continuity Management (BCM) as a way of continuously reviewing and improving that BCP.

Through the BCM process, the lessons learned in the course of the Great East Japan Earthquake and the flooding in Thailand are now reflected in our BCP.

In FY 2011, we worked to promote a variety of BCP-related measures. These included enhancing alternative production capacity by promoting use of multiple fabrication sites[2] (including overseas), and multiple sourcing[3] of parts procurement. We also worked to enhance our data center facilities, ensure redundant internal systems, and otherwise put in place advance measures to ensure a stable supply of products and services. We also continue to implement drills with the participation of corporate management.

Going forward, we will continue to systematically train specialists to ensure widespread implementation and recognition of and further improvements to this BCM. These specialists will be central to our promotion of BCM for the entire supply chain, including not only logistics, production and similar sectors within the Fujitsu Group, but also support for our partners' BCM development.

*2 Multiple fabrication:
Having in place two or more production plants for a product.

*3 Multiple sourcing:
Purchasing goods from multiple suppliers.

Toward a More Assured Business Continuity

To respond to new risk response needs that became apparent in the course of the Great East Japan Earthquake, Fujitsu's Risk Management Office has conducted a fundamental reevaluation of the Group's BCM, and is working on drills and other improvements to further enhance its effectiveness.

Vice President
Risk Management &
Compliance Office
Akihiro Yoshida

Enhancing Disaster Preparedness and Business Continuity Planning Based on Lessons from the Great East Japan Earthquake

Based on its experiences during the Great Hanshin-Awaji Earthquake disaster of 1995, Fujitsu has worked to enhance its disaster preparedness measures. In addition, since 2005 we have actively promoted the BCM through our BCP. As a result, our disaster preparedness and business continuity planning functioned effectively in the aftermath of the Great East Japan Earthquake, a natural disaster of unprecedented proportions for Japan.

At the same time, while we were relatively quick to launch our Central Headquarters for Disaster Recovery, our initial response was delayed by difficulties in using the manuals that had been prepared. A variety of other issues also became apparent, including the amount of time it took to distribute emergency supplies to employees left stranded in high-rise office buildings.

Additionally, in regions directly affected by the disaster, an unforeseen chain of events occurred, the effects of which grew in complexity-a painful reminder that further improvements to our existing initiatives would be needed. Specifically, for production plants where recovery was deemed difficult, we were able to switch production to alternative facilities, but the lead time required to do so was 1.5 times the target figure under the BCP.

To take advantage of this experience, a checklist for determining the difficulty of plant recovery, and a prioritized list of procedures for shifting production to alternative facilities, have been newly incorporated in the BCP. To further prepare for unprecedented events, we are considering adding production facilities in Mie and Kyushu to the five sites in the Tohoku region that can be switched to alternative production sites.

Based on these lessons, Fujitsu is reexamining its measures in response to the possibility of an earthquake directly striking under Tokyo, and we continue to promote enhancement of business continuity plans.

The Fujitsu Group's Vision for BCM

A Culture of Readiness (Always Prepared)
Assume self-responsibility and constantly work to make improvements

Business Continuity Capabilities
Ensure the ability to resume important business activities within targeted time frames

Infrastructure
Proactive initiatives
Take steps to prevent and reduce damage from disasters

Knowledge
Continuity strategy
Frameworks and division of roles
Codes of behavior and procedures

Skills
Adaptability
Conduct training to better equip individuals and organizations to handle crises

More effective to reinforce knowledge and skills than infrastructure

Reevaluating Initial Response and Conducting Large-Scale Disaster Response Drills

Looking back again at last year's disaster, the biggest lesson we at Fujitsu learned was the importance of our initial response immediately following the disaster. As a result, we have put in place a new Disaster Response Plan (DRP). The DRP provides a checklist for staff of the Disaster Response Headquarters to follow, covering actions to be taken within the first three hours immediately following a disaster, including confirming the safety of employees and providing employee support. This will make it possible to take quick action in the event of a similar catastrophe. Other companies in the Fujitsu Group are also moving to put this DRP in place.

Poster of the entire DRP process on the wall of the Risk Management Office

On September 1, 2011, Fujitsu also held a joint Group drill, based on the lessons learned in the Great East Japan Earthquake, to practice its response to a possible earthquake striking directly below the Japanese capital of Tokyo. Ninety-eight Group companies across 260 locations participated in the drill. The drill, which was based on a scenario developed together with Fujitsu Research Institute, was unusual in that it required the response headquarters established at each office to respond ad lib to the simulated damage. A temporary Central Headquarters for Disaster Recovery was set up in the Kansai region as the disaster occurred, with each office reporting on conditions via satellite phone or MCA wireless links. At the same time, they used CRMate, a SaaS-based information sharing system, to confirm coordination and to verify that the established DRP was functioning effectively. Additionally, drills included confirming the safety of about 80,000 Group employees located in the assumed disaster zone, and practice in transporting emergency supplies by helicopter from the Tokai regional office via the Nagoya airport, for delivery to the Atsugi Research Laboratory.
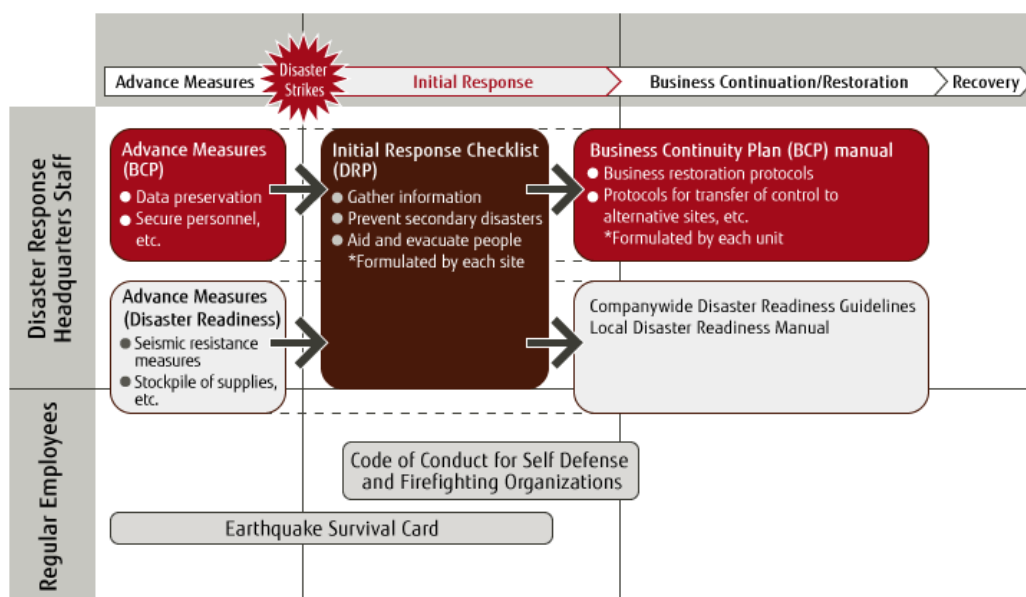
A Variety of Initiatives in the Year Following the Disaster

Experiences gained in last year's disaster must not go to waste, and must be put to use in future planning. At Fujitsu, we have asked employees who were working in the affected regions at the time to submit records of their actions since the earthquake, and we are now analyzing and considering measures based on that information.

At Fujitsu Isotec, one of the plants affected by the earthquake, damage was caused by, among other things, a ceiling-mounted air conditioning unit that fell. This prompted the formulation of a new FUJITSU Earthquake-resistance Standard, which all Fujitsu Group-owned businesses have been required to apply beginning in December 2011. This standard integrates public seismic resistance policies with guidelines established by Fujitsu over the course of the past three major earthquakes.

To quickly put in place internal IT infrastructure capable of responding to wide-area disasters, Fujitsu has also begun working to install distributed network gateways and back-up power generating equipment, as well as redundant WAN circuits. With this most recent disaster, Fujitsu is also surveying the correlation between its suppliers' BCM assessment scores and the time required for restoration of operations, verifying the correlation between their BCM efforts and the time it takes for them to restore supplies. Based on these results, we are now using seminars and other means to provide suppliers with ongoing BCM enhancement support, and are reviewing a move to multi-source procurement and measures to ensure an optimal store of supplies.

To ensure proper business continuity, it is both effective and important to continuously improve and firmly establish action plans, and to enhance skills in areas such as disaster response capability. At Fujitsu, we hope to continue working to develop specialists in each division capable of independently promoting BCM initiatives.

Measures Against New Strains of Influenza

We have taken steps against new strains 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 a pandemic 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 developed and operate a systematic educational curriculum that aims for extensive risk management across the entire Group.

Through this curriculum, 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.
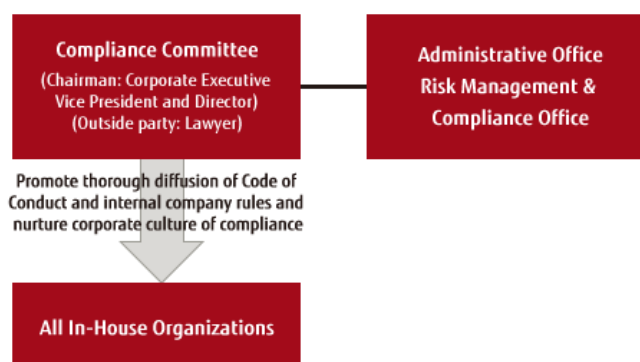
Compliance

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 of the Fujitsu Way, and constructing the necessary internal systems and structures.

Furthermore, in cooperation with the Legal Division for Rules & Compliance the Risk & Compliance Office (the administrative office of the Compliance Committee) carries out activities aimed at instilling an awareness of compliance.

Compliance Promotion Structure

Compliance Committee
(Chairman: Corporate Executive Vice President and Director)
(Outside party: Lawyer)

Administrative Office Risk Management & Compliance Office

Promote thorough diffusion of Code of Conduct and internal company rules and nurture corporate culture of compliance

All In-House Organizations

Activities Promoting Compliance

The Fujitsu Group engages in various activities to ensure widespread awareness of the need for compliance.

In Japan, 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 Act or bribery problems. An internal system to handle reports and inquiries from employees on antimonopoly issues has also been established.

In FY 2011, based on responses to the questionnaire on the Code of Conduct carried out in FY 2010, we implemented an e-learning program for all Fujitsu employees in Japan (completion rate 99%), focused on issues that could likely occur within the company, or problems that could have a serious impact on the Company if they occur, such as power harassment, bribery, cartel formation, and unauthorized copying. Through case studies, the program provided each employee with an opportunity to review and improve his or her own conduct.

In FY 2012 we plan to successively implement the same e-learning program for employees of Group companies in Japan.

Raising awareness of compliance

To raise awareness of compliance issues, Fujitsu has created compliance manuals that explain, in an easily understandable manner, the main laws (the Anti-Monopoly Act, the Unfair Competition Prevention Act, and the Act against Delay in Payment of Subcontract Proceeds, etc.) that closely affect our business. We have made these manuals known to employees at Fujitsu and domestic Group companies via our intranet.

The content of the manuals is revised as necessary in line with amendments to laws and other developments.

Besides Japanese laws, we have also prepared a compliance manual on the U.S. Export Administration Regulations (EAR), which are closely connected to our global business development activities. Efforts are focused on ensuring familiarity with this manual among employees.

Overseas, we have provided a guideline called Global Business Standards (GBS), which sets forth detailed guidelines on the Code of Conduct for each Group company. GBS has been codified into rules at each Group company. At the same time, we use e-mail and the Internet to ensure that employees understand these rules.

Compliance education

To ensure strict legal 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 tendering laws and regulations, as well as anti-monopoly and other legal issues. 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.

At overseas Group companies, we also provide compliance education to executives and compliance officers through programs carried out by external instructors. For employees, we provide e-learning programs covering the aforementioned GBS along with items such as anti-corruption measures.

Furthermore, we have printed the Code of Conduct of the Fujitsu Way on wallet-sized cards and distributed them to all Group employees. These cards are designed to serve as a quick reference of the Code of Conduct for employees when they are dealing with customers or business partners, or when they are uncertain about a decision in the course of daily operations. The card is also prepared in several languages and distributed to non-Japanese employees.
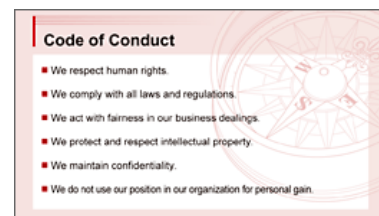
Operating an Internal Reporting System

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).

This helpline is intended for use by employees who are uncertain about a decision or suspect a violation in the course of executing daily business operations, based on the Code of Conduct set forth by the Fujitsu Way.
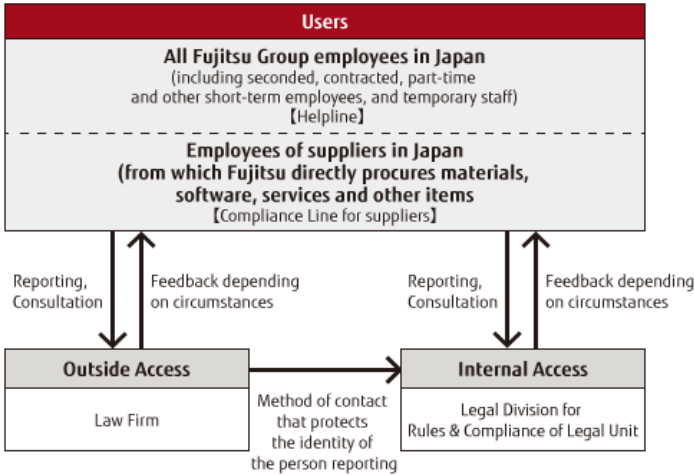
Each of the Group companies in Japan and overseas has also established and operates its own internal reporting system.

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.

Internal Reporting System for Suppliers

Users
All Fujitsu Group employees in Japan (including seconded, contracted, part-time and other short-term employees, and temporary staff) 【Helpline】
Employees of suppliers in Japan (from which Fujitsu directly procures materials, software, services and other items 【Compliance Line for suppliers】

Reporting, Consultation | Feedback depending on circumstances | Reporting, Consultation | Feedback depending on circumstances

Outside Access	Method of contact that protects the identity of the person reporting	**Internal Access**
Law Firm		Legal Division for Rules & Compliance of Legal Unit

Information Security

We are ensuring the proper management and use of information, in line with internal rules based on the Code of Conduct in the Fujitsu Way.

Our Basic Approach to Information Security

We see maintaining confidentiality as a vital aspect of our social responsibility. Based on this approach, we have established the Fujitsu Group Information Security Policy, consistent throughout the world, and are promoting information security in accordance with the policy.

- 📄 Fujitsu Group Information Security Policy [24KB]

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.

Fujitsu Group Information Security Policy

Group companies in Japan

Information Management
- Information Management Rules
- Other Company Confidential Information Management Rules
- Personal Information Management Rules

ICT Security
- Information System Security Rules
- Fujitsu PKI* Usage Rules

Implementation Procedures

Overseas Group Companies

Information Systems Security Policy, etc.

Preparation of rules and policies for each company

Implementation Procedures

* PKI (Public Key Infrastructure): Rules relating to the use of systems for personal identification and encoding.

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.

Information Security Management Structure

Security Committee (Solutions Business Group)

Chair: Corporate Senior Executive Vice President

Administrative office

Members (Each Unit)
Organizations promoting information security in each unit
(Persons in charge of information security management and audits)

Members (Each Group Company)
Organizations promoting information security in each division
(Persons in charge of information security management and audits)

Teaching and promoting awareness of information security

Starting in FY 2008, using a common slogan that translates as "Declaration for complete information management! Information management is the lifeline of the Fujitsu Group," Fujitsu and domestic Group companies have been working to increase information security awareness at the individual employee level by displaying posters at respective business locations, affixing information security awareness stickers to all business PCs used by employees, and other measures. We have also taken steps to enhance security through the application of ICT, such as by introducing a remote data deletion solution (CLEARSURE) and a mail checker tool (SHieldMailChecker) to prevent e-mail from being sent externally in error. Furthermore, e-learning courses are held for all our employees, including executives, each year in order to further establish information security awareness.

Held information security presentation for business partners

These days, there have been many occurrences of information being leaked or lost. In response, the Fujitsu Group has held information security presentations that were not only for Group employees but also for domestic business partners who commission software development and services.

- Example of seminars held in FY 2011

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 have since been renewing 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.

Protection of Intellectual Property

We are appropriately managing intellectual property rights (respect/protection) in all aspects of our business activities.

Our Basic Approach Toward 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.

We established an internal rule in order to encourage the proper handling of intellectual property in October 1995. This rule not only specifies what all employees should do to acquire, maintain and use intellectual property rights, but also 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. Accordingly, 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 [3.44MB / A4 / 20 pages]

Organizations and Frameworks to Protect Intellectual Property Rights

Established as a corporate division, the Intellectual Property Unit handles general legal and compliance issues pertaining to intellectual property, makes plans and proposals for the Fujitsu Group's intellectual property strategy, and works to capitalize on intellectual property in part by acquiring patents for and licensing these rights. Its extensive initiatives also include promoting strategic standardization activities.

The Intellectual Property Unit establishes uniform policies, and leads overall Group activities on the intellectual property front. Additionally, each of the business groups in all of the segments has an intellectual property strategy supervisor and promotion section. This framework allows for close cooperation between R&D and intellectual property divisions.

To facilitate global business development, we are also working to appropriately acquire, maintain, and utilize intellectual property throughout the world. Specifically, we have representatives stationed in the US and China to identify and promote patent applications for inventions coming out of our research and development sites in those countries. Further, we established the Fujitsu Patent Center in 2007 to improve our patent right acquisition performance in the US, subsequently expanding its activities to further raise patent quality with an eye to utilization in business.

ORGANIZATION
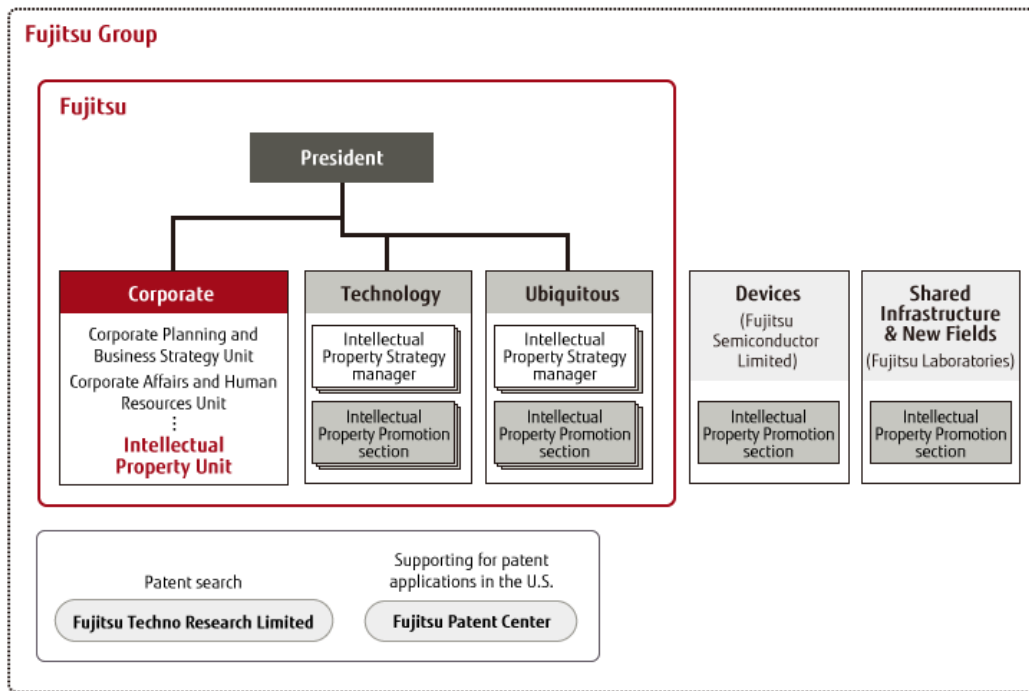
## Intellectual Property Education and Enlightenment

Fujitsu sees employee education as key to the successful execution of its intellectual property strategy. We put in place an intellectual property education system targeting effective, efficient learning. We look to strategically develop human resources by offering training programs to meet the needs of individual employees in various disciplines and stages of their career. We provide two types of training programs-e-learning and classroom education-so that employees can select the format that works best for them.

The Fujitsu Group believes it is vital to drive home to employees through such initiatives an understanding of intellectual property's importance, as well as the need for business, research and development, standardization, and intellectual property strategies to be conducted in concert.

Patent Portfolio Status

The Fujitsu Group holds roughly 102,000 patents worldwide as of March 31, 2011.

Fujitsu Group's Pending and Granted Patents Worldwide

Pending patents 46%   About 97,600 patents   Granted patents 54%
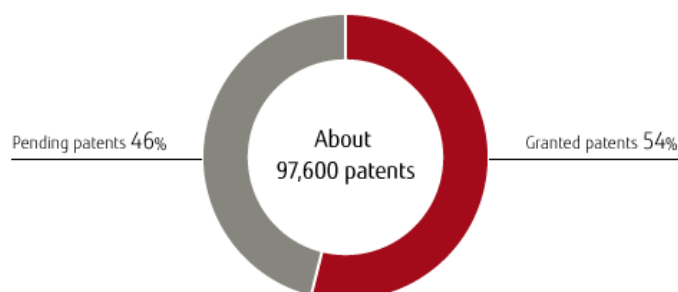
As our business has become more global, our overseas patents have come to outnumber our domestic patents. Fujitsu and its Group companies are striving to enhance patent portfolios by aggressively filing patent applications and acquiring patent rights globally, as well as by identifying inventions born from local research and development sites in places like the US, Europe, and China.

Breakdown of Granted and Pending Patents for Each Region

Region	Pending	Granted
Japan	51%	49%
Americas	63%	37%
Europe	36%	64%
Asia and Oceania	67%	33%

■ Pending patents   ■ Granted patents
As of March 31, 2011
Source: Fujitsu internal statistical information
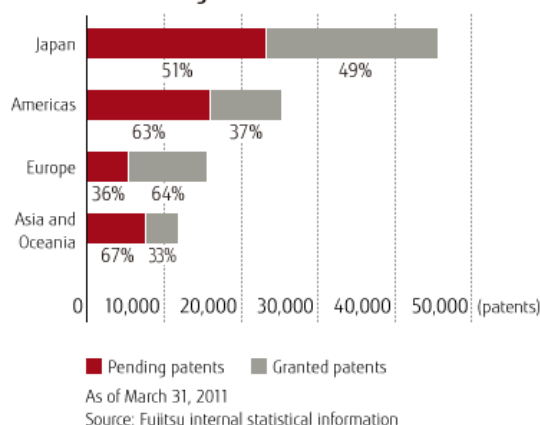
With respect to patent position, Fujitsu ranked 12th in Japan (based on our own research) and 13th in the US (based on IFI CLAIMS Patent Services research) in 2010 in terms of the number of patents registered. The Fujitsu Group's registered patents total 4,239 in Japan and 2,007 in the US.

Number of Granted Patents in Japan in 2011

(patents)

1	Panasonic Corporation	6,812
2	TOYOTA MOTOR CORPORATION	5,011
3	Sony Corporation	4,300
4	Canon Inc.	4,206
5	TOSHIBA CORPORATION	3,825
6	Mitsubishi Electric Corporation	3,655
7	Ricoh Company, Ltd.	3,330
8	Honda Motor Co., Ltd.	3,163
9	SEIKO EPSON CORPORATION	2,964
10	Sharp Corporation	2,959
11	Denso Corporation	2,949
12	**FUJITSU LIMITED**	**2,902**
13	Fuji Xerox Co., Ltd.	2,689
14	Hitachi, Ltd.	2,510
15	FUJIFILM Corporation	2,156
16	Panasonic Electric Works Co., Ltd.	2,074
17	KYOCERA Corporation	1,884
18	NEC Corporation	1,877
19	Dai Nippon Printing Co., Ltd.	1,832
20	BROTHER INDUSTRIES, LTD.	1,725

All applicants were counted on the Patent Grant issuance date.
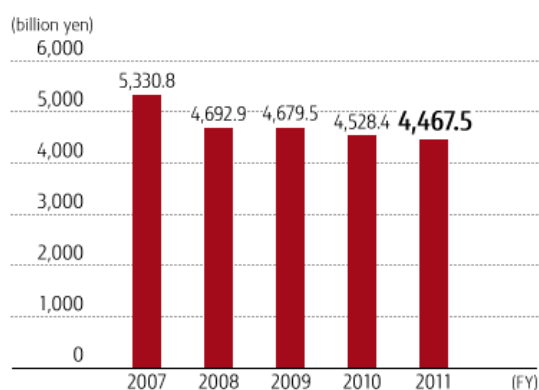Source: Fujitsu survey based on Japan Patent Office data
The number of patents granted to Fujitsu Group companies other than Fujitsu Limited is 1,337 (24 companies).
Total Fujitsu Group patents: 4,239

Number of Granted Patents in the U.S. in 2011

(patents)

1	IBM Corporation	6,180
2	Samsung Electronics Co., Ltd.	4,894
3	Canon Inc.	2,821
4	Panasonic Corporation	2,559
5	TOSHIBA CORPORATION	2,483
6	Microsoft Corporation	2,311
7	Sony Corporation	2,286
8	SEIKO EPSON CORPORATION	1,533
9	Hon Hai Precision Industry Co., Ltd.	1,514
10	Hitachi, Ltd.	1,465
11	General Electric Company	1,448
12	LG Electronics, Inc.	1,411
13	**FUJITSU LIMITED**	**1,391**
14	Hewlett-Packard Development Company, L.P.	1,308
15	Ricoh Company, Ltd.	1,248
16	Intel Corporation	1,244
17	BROADCOM	1,164
18	GM Global Technology	1,095
19	Renesas Electronics Corporation	1,005
20	Honda Motor Co., Ltd.	997

All applicants were counted on the Patent Grants issuance date.
Source: IFI CLAIMS Patent Services data
The number of patents granted to Fujitsu Group companies
other than Fujitsu Limited is 616 (13 companies).
Total Fujitsu Group patents: 2,007

Fujitsu Group Profile

Profile

Company Name	Fujitsu Limited
Addresses	**Kawasaki Main Office** 4-1-1 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa 211-8588, Japan **Headquarters** Shiodome City Center 1-5-2 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
Sales	¥4,467.5 billion (FY 2011)
Capital	¥324.6 billion (as of the end of March 2012)
Total Assets	¥2,945.5 billion (Liabilities: ¥1,978.9 billion, net assets: ¥966.5 billion) (as of the end of March 2012)
Fiscal Year-end	March 31
Employees	Consolidated: 173,155 (as of the end of March 2012) Unconsolidated: 24,906 (as of the end of March 2012)
Directors	12 (incl. 1 female director out of 4 outside directors as of June 25, 2012)
Consolidated Subsidiaries	538 companies
Equity-method Affiliates	18 companies
Stock Exchange Listings	Tokyo, Osaka, Nagoya, London

Consolidated Net Sales

(billion yen)

FY	2007	2008	2009	2010	2011
	5,330.8	4,692.9	4,679.5	4,528.4	4,467.5

Consolidated Operating Income/Net Income (Loss)

(billion yen)

	2007	2008	2009	2010	2011	(FY)
Operating income	204.9	68.7	94.3	132.5	105.3	
Net income (loss)	48.1	(112.3)	93.0	55.0	42.7	

■ Operating income ■ Net income (loss)

Research and Development Expenditures/Capital Expenditures

(billion yen)

	2007	2008	2009	2010	2011	(FY)
Research and Development Expenditures	258.7	249.9	224.9	236.2	238.3	
Capital Expenditures	249.0	167.6	126.4	130.2	140.6	

■ Research and Development Expenditures
■ Capital Expenditures

Trends in Numbers and Average Ages of Employees

(people) / (age)

	2007	2008	2009	2010	2011	(FY)
No. of Employees (consolidated)	167,374	165,612	172,438	172,336	173,155	
No. of Employees (unconsolidated)	27,310	25,899	25,134	24,969	24,906	
Average Age (unconsolidated)	40.7	41.1	41.4	41.7	42.2	

■ No. of Employees (consolidated) ■ No. of Employees (unconsolidated)
□ Average Age (unconsolidated)

Sales Ratios by Region

APAC & China
9%

The Americas
6%

EMEA
(Europe, Middle East, and Africa)
17%

Consolidated
net sales for FY 2011:
4,467.5 billion yen

Japan
69%

Employees by Region (unit: 000)

APAC & China
27 (15.6%)

The Americas
8 (4.7%)

EMEA
(Europe, Middle East, and Africa)
31 (17.9%)

Consolidated
total no. of employees
for FY 2011
173

Japan
107 (61.8%)

Main Business Activities

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, manufacture and sale of those products and electronic devices to the provision of maintenance services.

FY 2011 Consolidated Net Sales by Business Segment

Others
1.8%

Device Solutions
12.3%

Ubiquitous Solutions
24.3%

Technology Solutions
61.7%
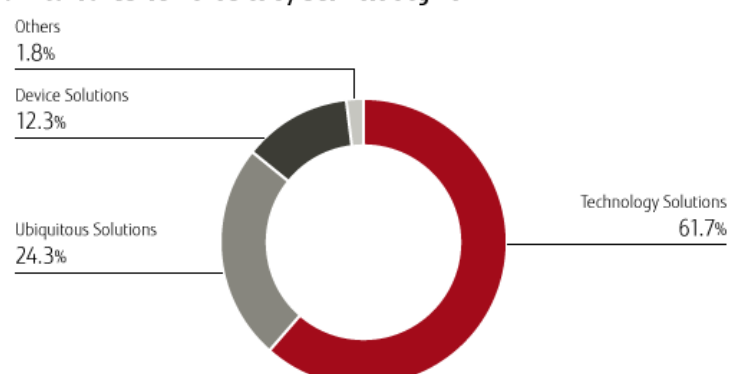
Technology Solutions

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

PRIMEHPC FX10 supercomputer

The Integrated Control Room of
Tatebayashi System Center

Main consolidated subsidiaries

- Fujitsu Frontech Limited
- Fujitsu Telecom Networks Limited
- Fujitsu IT Products Limited
- 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

Ubiquitous Solutions

PCs and mobile phones

FMV UH75/H (Satin Red)

ARROWS X F-10D (Black)

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

Device Solutions

Logic LSIs / memory LSIs / semiconductor packages / optical transceiver modules / mechanical components (relays, connectors, etc.)

16K-bit Ferroelectric Lower capacity Random
Access Memory (FRAM) product with Serial
Peripheral Interface (SPI)
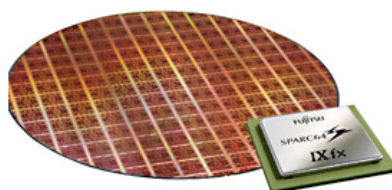
SPARC64™ IXfx wafer

Main consolidated subsidiaries

- Fujitsu Semiconductor Limited
- Shinko Electric Industries Co., Ltd.
- FDK Corporation
- Fujitsu Component Limited
- Fujitsu Electronics Inc., others

Global Business System

EMEA
- 166 companies
- 31,000 people
- ¥809.2 billion
- 26 locations

APEC & China
- 126 companies
- 27,000 people
- ¥410.2 billion
- 15 locations

Japan
- 199 companies
- 107,000 people
- ¥2,961.4 billion
- 66 locations

The Americas
- 47 companies
- 8,000 people
- ¥286.5 billion
- 4 locations

Consolidated subsidiaries Full-time employees Sales Datacenters

Editorial Policy

Reporting According to Fujitsu Group Corporate Social Responsibility Policy.

The Fujitsu Group Sustainability Report 2012 (detailed version) reports in accordance with the five priority issues stipulated by the Fujitsu Group Corporate Social Responsibility (CSR) Policy, and includes typical examples of specific content relating to those issues.

Reporting System

Details concerning Fujitsu Group initiatives are reported in the formats described below.

Reporting Regarding Fujitsu Group CSR Initiatives

Importance for Stakeholders

Reporting of FY 2011 results and noteworthy initiatives

More detailed reporting of social and environmental efforts

Importance for the Fujitsu Group

Clear, concise and compact booklet

Fujitsu Group Sustainability Report 2012

Printed version and PDF

Website and PDF with specific, detailed content

Fujitsu Group Sustainability Report [Detailed version] 2012

PDF

→ WEB The Fujitsu website Our Approach to CSR
http://www.fujitsu.com/global/about/responsibility/

Our main financial report

Annual Report

→ WEB Website
http://www.fujitsu.com/global/about/ir/library/annualrep/

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.

Reporting Period

This report focuses on activities in FY 2011, from April 1, 2011 to March 31, 2012, and the data presented is actual performance data from that period. Content from times outside that period, however, is also presented.

Target Readership

This report is written assuming 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.

Organizations Covered

While the whole of the Fujitsu Group is covered in 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 coverage is of Fujitsu itself plus a total of 129 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).

- List of organizations that are covered in environmental activities reporting (in Japanese)

Significant Changes in Coverage

Fujitsu Toshiba Mobile Communications Limited (name changed to Fujitsu Mobile Communications Limited in FY 2012) is also covered in this report.

Guidelines Referenced

- GRI Sustainability Reporting Guidelines, Version 3.1 (G3.1)
- ISO 26000 Guidance on Social Responsibility
- Ministry of the Environment: Environmental Reporting Guidelines (2012 edition) (Japanese)
- Ministry of the Environment: Environmental Accounting Guidelines (2005 edition) (Japanese)

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.

CSR Activity Targets and Achievements

Basic CSR Management

Targets and Achievements

Category	Medium-Term Targets (FY 2020)	FY 2011 Results	FY 2012 Targets
Promoting CSR Activities Across the Group	• We have CSR management processes in place across the Group and implement CSR initiatives in line with global standards, including those for value chains.	• Verified progress on seven core issues under ISO 26000. At a workshop, created a 252-item checklist and confirmed that Fujitsu has already completed 178 items.	• Explore measures for completing remaining items and ranking their priority. • Expand items covered by the checklist for Group companies, including those overseas.
Implementing the PDCA Cycle Based on Our Vision	• We work continuously to bring our CSR efforts to the next level by setting shared short and medium-term targets for the entire Group and utilizing the PDCA (plan, do, check, act) cycle.	• Set medium-term and 2012 targets based on CSR Policy. • Clarified issues that we should address and goals heading toward 2020 through dialogue with outside experts. • Set requirements for consideration of social and environmental factors when formulating organizational targets.	• Establish medium-term CSR targets and single fiscal year targets for PDCA processes. • Announce detailed plans for issues we should tackle heading toward 2020. • Begin work on strengthening processes and setting specific goals when formulating organizational targets.

CSR Penetration and Execution	• Fujitsu Group employees take it upon themselves to promote CSR with a comprehensive view to economic, environmental, and social dimensions.	• Built frameworks for spreading the CSR Policy within the Company.
		  ○ Started delivering CSR messages directly from top management.
		  ○ Implemented in-house CSR study sessions (412 total participants).
			• Renovate tools for infusing the CSR Policy throughout the organization, including Internet-based frameworks, in-house publications, and events.
			• Enhance systems encouraging employees to voluntarily take part in linking the CSR Policy to their work.
			  ○ Expand the CSR Promotion Task Force's scope to more departments.
			  ○ Enhance employee education through questionnaires, e-learning, round-table discussions for employees, and the like.
			  ○ Introduce an award program.

Targets and Achievements

Category	Medium-Term Targets (FY 2020)	FY 2011 Results	FY 2012 Targets
Providing New Values Through ICT	• We are using global cutting-edge computing to generate simulations of the future, and employing them to help solve an array of tough problems like climate change, resource shortages, and disaster damage. In addition, we are globally deploying ICT-enabled solutions for various issues affecting cities, food, medicine, education, and more.	• The supercomputer "K computer" took first place in world for processing speed. • Deployed secured cloud platform to six global sites with world-leading reliability realizing an operating rate of 99.9%. • Held study sessions on resolving social issues through our business operations (roughly 100 participants). • Co-hosted developing country business seminars and conducted partner seminars with NGOs.	• Expand programs utilizing sophisticated computing to address social issues. • Generate multiple examples of viable businesses in the form of ICT-enabled solutions for social issues in areas like medicine, education, and food. • Examine introducing an evaluation system for projects designed to solve social issues.
Increasing ICT Accessibility	• So that as many people as possible in the world can leverage ICT to pursue their potential, we are opening doors to cyber society, providing devices and interfaces that are easy to use for all, and offering systems supporting ICT deployment to developing countries.	• Provided interfaces with an eye to global deployment, including in emerging markets. • Promoted universal design activities that bring opportunities to many people, with an understanding of actual conditions in developing countries (invested around \0.3 billion in activities). • Brought the accessibility of the corporate website up to JIS "Level AA" (partial compliance). • Held a global device design contest to give shape to Fujitsu's vision for the future. Over 1,000 entries received.	• Incorporate diverse stakeholders' opinions and conduct field tests to further the development of products that deliver great ICT experiences to more people. • Conduct surveys to ascertain the issues and identify areas where ICT should make a difference (e.g., estimate benefits, establish processes), with a view to creating more solution businesses in developing countries.
Reliability and Security through ICT	• We deliver reliability and security through the stable operation of ICT systems, the infrastructure underpinning economic and social activity. Further, we provide ICT solutions to realize highly secure environments where personal and proprietary information is protected.	• Conducted quality checks for all Internet connection systems delivered to customers in Japan in line with mandated security audits. • Held information security workshops for employees and around 18,700 people from roughly 1,160 partner firms. • Acquired an information security rating of A or better for data centers in Japan (four rated were "AAA") from the external rating agency I.S. Rating Co., Ltd. • A total of 277 employees received JASA auditor or other certifications (Fujitsu has the most JASA auditors in Japan).	• Maintain and reinforce the measures to the left. • Strengthen responsiveness to government policies for enhancing IT security. • Advance and promote global communications platforms.

Targets and Achievements

Category	Medium-Term Targets (FY 2020)	FY 2011 Results	FY 2012 Targets
Benefitting Customers and Society	• By providing technologies and solutions, we are moving closer to our target of reducing CO_2 emissions by 30 million tons a year in Japan by 2020, and helping to cut greenhouse gas emissions worldwide.	• Provided green ICT that will reduce cumulative CO_2 emissions worldwide by 9.98 million tons for the FY 2009-11 period.	• Provide green ICT that will reduce cumulative CO_2 emissions worldwide by 15 million tons or more over the FY 2009-12 period.
Pursuing Internal Reforms	• The Fujitsu Group boasts world-leading overall energy efficiency in each of its business fields, including software services, hardware products, and electronic devices.	• Reduced greenhouse gas emissions associated with manufacturing globally to 18.2% below FY 1990 levels by end of FY 2011.	• Reduce greenhouse gas emissions associated with manufacturing globally to 6% below FY 1990 levels by the end of FY 2012. (CO_2: 5% reduction, other greenhouse gases: 20% reduction)
Preserving Biodiversity	• We are advancing and taking concrete measures regarding all of the items outlined in the "Business and Biodiversity Initiative" leadership declaration.	• Achieved a 4.6% reduction in level of impact (in main business areas) compared to FY 2009 as evaluated by BD integration index-numerical indicators developed to measure impact of operations on biodiversity as part of a system to expand contribution of ICT to reducing that impact.	• Achieve a 3% reduction in the level of impact (in main business areas) compared to FY 2009 as evaluated by BD integration index-numerical indicators developed to measure the impact of operations on biodiversity as part of a system to expand contribution of ICT to reducing that impact.

Priority 3　Embracing Diversity and Inclusion

Targets and Achievements

Category	Medium-Term Targets (FY 2020)	FY 2011 Results	FY 2012 Targets
Corporate Culture Reform	• We offer a good working environment for everyone, thanks in part to measures to further human rights promotion and diversity. • Our corporate culture fosters ongoing creation of new knowledge and technologies inside and outside the organization through open and free discussion from a wealth of perspectives.	• Fujitsu's Human Rights Promotion Committee is charged with promoting organization-wide human rights awareness, and led training and other initiatives to this end at workplaces, including plants, branches, and offices. • To advance diversity at all Fujitsu workplaces and domestic Group companies, we held study sessions for promotion managers representing workplaces and Group companies. • Fujitsu conducted a diversity awareness survey and internally announced the results for each applicable attribute.	• Further advance the training and enlightenment activities to the left and their diffusion throughout domestic Group companies. • Enhance individual support and other steps to further develop the diversity promotion measures to the left. • Work to increase the rate of positive responses to working environment-related items on the diversity awareness survey to the left by looking closely at the issues.
Helping Individuals Flourish	• Fujitsu is creating workplaces in which employees recognize each other, and can exhibit the full added value they possess to contribute to the organization.	• Positive actions taken by Fujitsu: 　○ Implemented a Women's Leadership Development Program (69 participants). 　○ Established diversity mentors for female employees. 　○ Provided leadership workshops for female managers (31 participants). • Held workshops to support employee activities, information exchanges, and other networking events for members of domestic Group companies who are in the minority-namely women, foreign nationals, and employees who are raising children. • At Fujitsu, women accounted for 3.7% of management and disabled individuals accounted for 2.05% of employees.	• Expand positive action as shown to the left (e.g., utilization of diversity mentors for female employees). • More effectively augment the networking events to the left. • Work to increase the rate of positive responses to individual awareness-related items on the diversity awareness survey by looking closely at the issues.

Promoting a Work/Life Balance	• We are helping every employee to achieve a work/life balance and maintain a mutually beneficial relationship with society.	• Use of programs offered by Fujitsu:
		  ○ Childcare leave: 118 employees, paternity leave: 507 employees
		  ○ Volunteer leave: 87 employees
		• Held a work-life balance-related forum at Fujitsu based on the theme "work style innovation" for employees, including those from domestic Group companies (78 participants).
			• Raise the rate of positive responses to work-life balance-related items on Fujitsu's diversity awareness survey.

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

Targets and Achievements

Category	Medium-Term Targets (FY 2020)	FY 2011 Results	FY 2012 Targets

Working to Develop Employees Who Can Support a Truly Global ICT Company	• We are contributing to the advancement of society by fostering business leaders that can balance the pursuit of business strategies with the creation of social value.
	• Every employee grasps and acts in accordance with our corporate philosophy to create new value for society.
		• Cultivated global business leaders:
		  ○ Established a next-generation business leader development program (91 participants).
		  ○ Established a leadership development program for overseas offices (62 participants).
		  ○ Established a global competency development program for young employees in Japan (97 participants).
		• Established the Research Center for Practical Wisdom to realize business activities grounded in the common good.
			• Foster global business leaders.
			  ○ Promote diversity among the next generation of business leaders by strengthening ties with overseas business bases.
			  ○ Enhance the quality and scope of business leaders through continued training.
			• Shore up the baseline.
			  ○ Reinforce baseline training to ensure that every employee understands and acts in accordance with our corporate philosophy.
			  ○ Offer more opportunities for training on generating business from social and market changes.

Targets and Achievements

Category	Medium-Term Targets (FY 2020)	FY 2011 Results	FY 2012 Targets
Stakeholder Communications	• We have forged relationships built on trust with diverse stakeholders by maintaining mutual lines of communication.	• Held five sessions of dialogue with experts (creating social value through our core operations and universal design). • Conducted a questionnaire both internally and externally to improve our sustainability report. It was completed by around 3,600 people. • Published a booklet compiling our support initiatives in the aftermath of the Great East Japan Earthquake.	• Reflect the opinions of a wide range of stakeholders regarding our CSR initiatives and sustainability report in our actual corporate activities. • Engage in periodic dialogue with residents to promote development in neighboring communities.
Collaboration with Stakeholders	• Fujitsu Group employees practice optimal collaboration with stakeholders in delivering value which meets society's needs.	• Worked on activities with over 1,500 partners, including industrial associations, research societies, NGOs, and NPOs. • Teamed up with multiple NPOs on restoration and recovery from the Great East Japan Earthquake.	• Build relationships with NGOs, NPOs, international organizations, and other diverse stakeholders, and resolve social issues through our business operations. • Create forums conducive to innovation creation through dialogue with diverse stakeholders.
Harmony with Society	• Most employees take part in social contribution activities that leverage their strengths.	• Built an in-house database for social contribution activities linking communities, elucidating a track record topping 1,000 projects. • Dispatched around 360 employees in total to volunteer in disaster-stricken areas. • Donated some 1,000 PCs, mainly to municipalities in regions affected by the earthquake and tsunami, in collaboration with telecommunications firms and local governments.	• Examine introducing an evaluation system for programs promoting co-existence with society. • Enhance social contribution programs capitalizing on the Fujitsu Group's expertise.

GRI Guideline Comparison Table (Fujitsu Group Sustainability Report 2012)

1. Strategy and Analysis

Strategy and Analysis

GRI Indicator		ISO26000	Pages in Fujitsu Group Sustainability Report (Titles)	United Nations Global Compact
1.1	Statement from the most senior decision-maker of the organization (e.g., CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy.	6.2	• Message from Management	-
1.2	Description of key impacts, risks, and opportunities.	6.2	• Special Feature: "Smart Cities" • Providing New Values Through ICT • Increasing ICT Accessibility • Providing Reliable and Secure ICT Infrastructure • Risk Management: "Business Risks" • Environmental Management at the Fujitsu Group	-

2. Organizational Profile

Organizational Profile

GRI Indicator		ISO26000	Pages in Fujitsu Group Sustainability Report (Titles)	United Nations Global Compact
2.1	Name of the organization.	-	• 📕 Fujitsu Group Profile "Parent Company" [325.98KB]	-
2.2	Primary brands, products, and/or services.	-	• 📕 Fujitsu Group Profile "Regarding Our Business Segments" [325.98KB]	-
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	6.2	• 📕 Fujitsu Group Profile "Main Consolidated Subsidiaries" [325.98KB] • 📕 Editorial Policy "Organizations Covered" [109.69KB] [Reference] Organization	-
2.4	Location of organization's headquarters.	-	• 📕 Fujitsu Group Profile "Addresses" [325.98KB]	-
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	-	• Special Feature: "Smart Cities" • Providing New Values Through ICT • Increasing ICT Accessibility • Providing Reliable and Secure ICT Infrastructure • 📕 Fujitsu Group Profile "Global Business System" [325.98KB]	-
2.6	Nature of ownership and legal form.	-	• Corporate Governance "Corporate Governance Framework" • 📕 Fujitsu Group Profile "Parent Company" [325.98KB] [Reference] Worldwide	-
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	-	• 📕 Fujitsu Group Profile "Main Business Activities," "Sales by Region," and "Consolidated Net Sales by Business Segment" [325.98KB]	-
2.8	Scale of the reporting organization. • Number of employees; • Number of operations; • Net sales (for private sector organizations) or net revenues (for public sector organizations); • Total capitalization broken down in terms of debt and equity (for private sector organizations); and • Quantity of products or services provided.	-	• 📕 Fujitsu Group Profile "Sales," "Capital," "Total Assets," "Employees" and "Business Segments" [325.98KB] [Reference] Fujitsu at a Glance	-
2.9	Significant changes during the reporting period regarding size, structure, or ownership. • The location of, or changes in operations, including facility openings, closings, and expansions; and • Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations).	-	• 📕 Editorial Policy "Significant Changes in Coverage" [109.69KB]	-

| 2.10 | Awards received in the reporting period. | - | • Socially Responsible Investment (SRI)
• Increasing ICT Accessibility "Fujitsu Group's Universal Design (UD)"
• Environmental Management (Banksia Environmental Award Won by Fujitsu Australia and New Zealand)
• List of External Awards and External Evaluations | - |

3. Report Parameters

Report Parameters

GRI Indicator		ISO26000	Pages in Fujitsu Group Sustainability Report (Titles)	United Nations Global Compact
Profile of Report				
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	-	• 📄 Editorial Policy "Reporting Period" [109.69KB]	-
3.2	Date of most recent previous report (if any).	-	• 📄 Editorial Policy "Publisher" [109.69KB]	-
3.3	Reporting cycle (annual, biennial, etc.).	-	• 📄 Editorial Policy "Publisher" [109.69KB]	-
3.4	Contact point for questions regarding the report or its contents.	-	• 📄 Editorial Policy [109.69KB]	-
Scope and Boundary of Report				
3.5	Process for defining report content. • Determining materiality; • Prioritizing topics within the report; and • Identifying stakeholders the organization expects to use the report.	-	• CSR Policy • 📄 Editorial Policy "Reporting According to Fujitsu Group CSR Policy" [109.69KB]	-
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.	-	• 📄 Editorial Policy "Organizations Covered" [109.69KB]	-
3.7	State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).	-	• 📄 Editorial Policy "Organizations Covered" [109.69KB]	-
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	-	• 📄 Editorial Policy "Organizations Covered," "Significant Changes in Coverage" [109.69KB]	-
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.	-	• 📄 Editorial Policy "Guidelines Referred" [109.69KB] • Operating Activities and Environmental Burden	-
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	-	• 📄 Editorial Policy "Reporting System" [109.69KB]	-
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	-	• 📄 Editorial Policy "Organizations Covered," "Significant Changes in Coverage" [109.69KB]	-

GRI Content Index				
3.12	Table identifying the location of the Standard Disclosures in the report.	-	• 📄 FUJITSU GRI Sustainability Reporting Guidelines Comparison Tables [183KB]	-
3.13	Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s).	7.5.3	• 📄 Independent Assurance Report "Ensuring the Reliability of Information Disclosure" [159.69KB]	-

4. Governance, Commitments, and Engagement

Governance, Commitments, and Engagement

	GRI Indicator	ISO26000	Pages in Fujitsu Group Sustainability Report (Titles)	United Nations Global Compact
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	6.2	• Corporate Governance "Corporate Governance Framework"	
4.2	Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).	6.2	• Corporate Governance "Corporate Governance Framework"	
4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.	6.2	• Corporate Governance "Corporate Governance Framework" • Fujitsu Group Profile "Number of Directors" [325.98KB] [Reference] Management	
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	6.2	• For Our Shareholders and Investors "Communicating with Shareholders and Investors" • Corporate Governance "Corporate Governance Framework" • Compliance "Helpline"	
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	6.2	• Corporate Governance "The Framework for Strengthening Corporate Governance"	1-10
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	6.2	• Corporate Governance "The Framework for Strengthening Corporate Governance"	
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	6.2	• Corporate Governance "The Framework for Strengthening Corporate Governance"	
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	6.2	• Our Corporate Philosophy "FUJITSU Way" • CSR Policy • Environmental Management at the Fujitsu Group • Targets and Results for the Fujitsu Group Environmental Protection Program (Stage VI)	
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	6.2	• United Nations Global Compact • Corporate Governance "Corporate Governance Framework" • Risk Management "Business Risks" • Environmental Management	

4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	6.2	• CSR Activity Targets and Achievements • Corporate Governance "The Framework for Strengthening Corporate Governance" • Environmental Management	1-10
Commitments to External Initiatives				
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	6.2	• Activities to Disseminate the Fujitsu Way • United Nations Global Compact • CSR Policy "CSR Activities Utilizing ISO 26000" • Risk Management "Business Risks" [Reference] Fujitsu Group Environmental Policy	1-10
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	6.2	• United Nations Global Compact • CSR Policy "CSR Activities Utilizing ISO 26000" • Conservation of Biodiversity • Cooperation with External Organizations	
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: • Has positions in governance bodies; • Participates in projects or committees; • Provides substantive funding beyond routine membership dues; or • Views membership as strategic.	6.2	• Governments & Industry Groups (Public Policy) • Conservation of Biodiversity • Cooperation with External Organizations • Reducing Specific Chemical Substances in Products	-
Stakeholders Engagement				
4.14	List of stakeholder groups engaged by the organization. Examples of stakeholder groups are: • Civil society; • Customers; • Employees, other workers, and their trade unions; • Local communities; • Shareholders and providers of capital; and • Suppliers.		• Our Approach to CSR "The Fujitsu Group's Stakeholders"	-
4.15	Basis for identification and selection of stakeholders with whom to engage.		• Our Approach to CSR "The Fujitsu Group's Stakeholders" • Stakeholder Dialogue	-

4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	6.2	- Providing New Values Through ICT - Increasing ICT Accessibility - Providing Reliable and Secure ICT Infrastructure - Conservation of Biodiversity - Environmental and Social Contribution Activities - In-House Education and Enlightenment Activities - Communicating with Stakeholders - Diversity and Inclusion - Efforts Promoting Respect for Human Rights - Creating Good Working Conditions - Occupational Health and Safety and Health Management - Human Resources Development - Stakeholder Dialogue - For Our Customers - Quality Initiatives - With Our Suppliers - For Our Shareholders and Investors - Governments & Industry Groups (Public Policy)Approach to Social Contribution Activities - Promoting Learning & Education, Cultural and Sponsorship Activities - Contributing to Society through Sports - International Support and Disaster-relief Activities - Example Activities in Japan and Overseas	1-10
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	6.2	- Communicating and Collaborating with Stakeholders - Communicating with Stakeholders - For Our Customers "To Increase Customer Satisfaction"	-

5. Management Approach and Performance Indicators

Economic

Management Approach and Performance Indicators: Economic

GRI Indicator		ISO26000	Pages in Fujitsu Group Sustainability Report (Titles)	United Nations Global Compact
	Disclosure on Management Approach	6.2 6.8	• Our Corporate Philosophy "FUJITSU Way" • CSR Policy • 📄 Editorial Policy "Annual Report" [109.69KB]	-
Economic Performance				
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	6.8 6.8.3 6.8.7 6.8.9	-	-
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	6.5.5	• Green Policy Innovation-Achievements in Reducing CO_2 Emissions • FY2011 Environmental Accounting Results • Efforts to Prevent Global Warming	7,8,9
EC3	Coverage of the organization's defined benefit plan obligations.	-	[Reference] FY 2011 Year-end Report (Reports on the 112th Business Period)	-
EC4	Significant financial assistance received from government.	-	-	-
Market Presence				
EC5	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	6.4.4 6.8	-	-
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	6.6.6 6.8 6.8.5 6.8.7	-	-
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	6.8 6.8.5 6.8.7	-	-

Indirect Economic Impacts				
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	6.3.9 6.8 6.8.3 6.8.4 6.8.5 6.8.6 6.8.7 6.8.9	- Special Feature: Smart Cities - Providing New Values Through ICT - Increasing ICT Accessibility - Providing Reliable and Secure ICT Infrastructure - Approach to Social Contribution Activities - Promoting Learning & Education, Cultural and Sponsorship Activities - Contributing to Society through Sports - International Support and Disaster-relief Activities - Example Activities in Japan and OverseasConservation of Biodiversity - Environmental and Social Contribution Activities - Conservation of Biodiversity	8,9
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	6.3.9 6.6.6 6.6.7 6.7.8 6.8 6.8.5 6.8.6 6.8.7 6.8.9	-	-

Environmental

Management Approach and Performance Indicators: Environmental

GRI Indicator		ISO26000	Pages in Fujitsu Group Sustainability Report (Titles)	United Nations Global Compact
	Disclosure on Management Approach	6.2 6.5	• Environmental Management at the Fujitsu Group • Targets and Results for the Fujitsu Group Environmental Protection Program (Stage VI) • FY2011 Environmental Accounting Result • Environmental Management	7,8,9
Material				
EN1	Materials used by weight or volume.	6.5 6.5.4	• Operating Activities and Environmental Load (FY2011)	8
EN2	Percentage of materials used that are recycled input materials.		-	-
Energy				
EN3	Direct energy consumption by primary energy source.	6.5 6.5.4	• Operating Activities and Environmental Load (FY2011)	8
EN4	Indirect energy consumption by primary source.		• Operating Activities and Environmental Load (FY2011)	
EN5	Energy saved due to conservation and efficiency improvements.		• Efforts to Prevent Global Warming	7,8,9
EN6	Initiatives to provide energy-efficient or renewable energy-based products and services, and reductions in energy requirements as a result of these initiatives.		• Eco-friendly Products • Solutions that Benefit the Environment • Providing Environmental Solutions	
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.		• Efforts to Prevent Global Warming • Green Procurement with a Centralized Global Procurement System • Environmental Consideration in Transportation	
Water				
EN8	Total water withdrawal by source.	6.5 6.5.4	• Operating Activities and Environmental Load (FY2011) • Environmental Activities in Factories "Effective Use of Water Resources"	8
EN9	Water sources significantly affected by withdrawal of water.		-	-
EN10	Percentage and total volume of water recycled and reused.		• Environmental Activities in Factories "Effective Use of Water Resources"	8

Biodiversity				
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	6.5 6.5.6	-	-
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.		• Conservation of Biodiversity • Environmental and Social Contribution Activities	7,8,9
EN13	Habitats protected or restored.		• Conservation of Biodiversity • Environmental and Social Contribution Activities	7,8
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.		• Biodiversity Conservation That Leverages ICT • Conservation of Biodiversity • Green Procurement with a Centralized Global Procurement System	7,8,9
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.		-	-
EN16	Total direct and indirect greenhouse gas emissions by weight.	6.5 6.5.5	• Operating Activities and Environmental Load (FY2011) • Efforts to Prevent Global Warming	8
EN17	Other relevant indirect greenhouse gas emissions by weight.		• Operating Activities and Environmental Load (FY2011) • Efforts to Prevent Global Warming	8
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.		• Targets and Results for the Fujitsu Group Environmental Protection Program (Stage VI) • Green Policy Innovation-Achievement in Reducing CO_2 Emissions • Leading-Edge Green ICT Research and Development • Eco-friendly Products • Solutions that Benefit the Environment • Providing Environmental Solutions • Efforts to Prevent Global Warming • Green Procurement with a Centralized Global Procurement System • Environmental Contributions in Transportation	7,8,9
EN19	Emissions of ozone-depleting substances by weight.	6.5 6.5.3	• Environmental Activities in Factories "Elimination of Ozone-depleting Substances"	8
EN20	NOx, SOx, and other significant air emissions by type and weight.		• Environmental Activities in Factories "Preventing Air and Water Pollution" • Operating Activities and Environmental Load (FY2011)	8

EN21	Total water discharge by quality and destination.		• Operating Activities and Environmental Load (FY2011)	8
EN22	Total weight of waste by type and disposal method.		• Operating Activities and Environmental Load (FY2011)	8
EN23	Total number and volume of significant spills.	6.5 6.5.3	• Preventing Soil and Groundwater Pollution	8
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.		-	-
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	6.5 6.5.3 6.5.4 6.5.6	-	-
Products and Services				
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	6.5 6.5.4 6.6.6 6.7.5	• Targets and Results for the Fujitsu Group Environmental Protection Program (Stage VI) • Leading-Edge Green ICT Research and Development • Eco-friendly Products • Solutions that Benefit the Environment • Providing Environmental Solutions	7,8,9
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	6.5 6.5.3 6.5.4 6.7.5	• Operating Activities and Environmental Load (FY2011) • Eco-friendly Products • Product Recycling • Environmental Contributions in Transportation	8,9
Compliance				
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	6.5	• Environmental Management System "Status of Environmental Compliance"	8
Transport				
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	6.5 6.5.4 6.6.6	• Operating Activities and Environmental Load (FY2011) • Eco-friendly Products "Carrying Out Life Cycle Assessment(LCA)" • Environmental Contributions in Transportation	8,9
Overall				
EN30	Total environmental protection expenditures and investments by type.	6.5	• FY2011 Environmental Accounting Result	7,8,9

Social

Management Approach and Performance Indicators: Social

GRI Indicator		ISO26000	Pages in Fujitsu Group Sustainability Report (Titles)	United Nations Global Compact
Labor Practices and Decent Work				
	Disclosure on Management Approach	6.2 6.3 6.3.3 6.3.4 6.3.6 6.6.6	• Our Corporate Philosophy "FUJITSU Way" • CSR Policy • Diversity and Inclusion "Embracing Diversity and Inclusion" • Efforts Promoting Respect for Human Rights "Fujitsu Guiding Principles of Respect for Human Rights in Employment" • With Our Suppliers "FUJITSU CSR PROCUREMENT GUIDELINE"	1,2,3,4,5,6,10
Employment				
LA1	Total workforce by employment type, employment contract, and region, broken down by gender.	6.4 6.4.3	-	-
LA2	Total number and rate of new employee hires and employee turnover by age group, gender, and region.	6.4 6.4.3	-	-
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, bysignificant locations ofoperation.	6.4 6.4.3 6.4.4	-	-
LA15	Return to work and retention rates after parental leave, by gender.	6.4 6.4.3	• Creating Good Working Conditions "Number of Employees Using the Care Leave Support System"	6
Labor/Management Relations				
LA4	Percentage of employees covered by collective bargaining agreements.	6.3.10 6.4 6.4.3 6.4.4 6.4.5	• Creating Good Working Conditions "Labor Relations"	1,3
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	6.4 6.4.3 6.4.4 6.4.5	-	-

Occupational Health and Safety

LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	6.4 6.4.6	• [Occupational Health and Safety and Health Management "Efforts to Improve Occupational Health and Safety"](#)	1
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender.		-	-
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	6.4 6.4.6 6.8 6.8.3 6.8.4 6.8.8	• [Occupational Health and Safety and Health Management "Building a Culture Where Employees Can Work Confidently and Positively Through Efforts to Maintain and Enhance Health"](#) • [Risk Management "Measures Against New Strains of Influenza"](#)	1
LA9	Health and safety topics covered in formal agreements with trade unions.	6.4 6.4.6	-	-

Training and Education

LA10	Average hours of training per year per employee by gender, and by employee category.	6.4 6.4.7	-	-
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	6.4 6.4.7 6.8.5	• [Diversity and Inclusion "Creating a Workplace Environment in which Older Workers Can Thrive"](#)	6
LA12	Percentage of employees receiving regular performance and career development reviews, by gender.	6.4 6.4.7	-	-
LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	6.3.7 6.3.10 6.4 6.4.3	• [Diversity and Inclusion "Creating a Workplace Environment Where Female Employees Can Participate Actively"](#)	-

Equal Remuneration for Women and Men

LA14	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	6.3.7 6.3.10 6.4 6.4.3 6.4.4	-	-

Human Rights

Management Approach and Performance Indicators: Human Rights

	GRI Indicator	ISO26000	Pages in Fujitsu Group Sustainability Report (Titles)	United Nations Global Compact
	Disclosure on Management Approach	6.2 6.3	• Our Corporate Philosophy FUJITSU Way • CSR Policy • Diversity and Inclusion "Embracing Diversity and Inclusion" • Efforts Promoting Respect For Human Rights "Fujitsu Guiding Principles of Respect for Human Rights in Employment" • With Our Sippliers "Fujitsu CSR Procurement Guideline"	1,2,4,5,6,10
Investment and procurement practices				
HR1	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.	6.3 6.3.3 6.3.5 6.6.6	-	-
HR2	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.	6.3 6.3.3 6.3.5 6.4.3 6.6.6	• With Our Suppliers "Promoting Socially Responsible Procurement"	1,2,3,4,5,6,10
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	6.3 6.3.5	• Activities to Disseminate the Fujitsu Way	-
Non-Discrimination				
HR4	Total number of incidents of discrimination and corrective actions taken.	6.3 6.3.6 6.3.7 6.3.10 6.4.3	-	-
Freedom of Association and Collective Bargaining				
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	6.3 6.3.3 6.3.4 6.3.5 6.3.8 6.3.10 6.4.3 6.4.5	-	-
Child Labor				
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	6.3 6.3.3 6.3.4 6.3.5 6.3.7 6.3.10	-	-

Forced and Compulsory Labor				
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	6.3 6.3.3 6.3.4 6.3.5 6.3.7 6.3.10	-	-
Security Practices				
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	6.3 6.3.5 6.4.3 6.6.6	-	-
Indigenous Rights				
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	6.3 6.3.6 6.3.7 6.3.8 6.6.7	-	-
Assessment				
HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.	6.3 6.3.3 6.3.4 6.3.5	-	-
Remediation				
HR11	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.	-	-	-

Society

Management Approach and Performance Indicators: Society

GRI Indicator		ISO26000	Pages in Fujitsu Group Sustainability Report (Titles)	United Nations Global Compact
	Disclosure on Management Approach	6.2 6.6 6.8	• Our Corporate Philosophy "FUJITSU Way" • CSR Policy • Compliance • Approach to Social Contribution Activities	10
Local Communities				
SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	6.3.9 6.6.7 6.8 6.8.5 6.8.7	• Targets and Results for the Fujitsu Group Environmental Protection Program (Stage VI) "Promoting environmental contributions to society"	8
SO9	Operations with significant potential or actual negative impacts on local communities.	6.3.9 6.5.3 6.5.6 6.8.9	• Preventing to Soil and Groundwater Pollution	7,8
SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.		• Preventing to Soil and Groundwater Pollution	
Corruption				
SO2	Percentage and total number of business units analyzed for risks related to corruption.	6.6 6.6.3	• Risk Management "Risk Management Processes"	10
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures.		• Activities to Disseminate the Fujitsu Way "Implementation of e-Learning" • Compliance "Compliance Education"	
SO4	Actions taken in response to incidents of corruption.		-	-
Public Policy				
SO5	Public policy positions and participation in public policy development and lobbying.	6.6 6.6.4 6.8.3	• Governments & Industry Groups (Public Policy)	-
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.		-	-
Anti-Competitive Behavior				
SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	6.6 6.6.5 6.6.7	-	-
Compliance				
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	6.6 6.6.3 6.6.7 6.8.7	-	-

Product Responsibility

Management Approach and Performance Indicators: Product Responsibility

GRI Indicator		ISO26000	Pages in Fujitsu Group Sustainability Report (Titles)	United Nations Global Compact
	Disclosure on Management Approach	6.2 6.6 6.7	• Our Corporate Philosophy "FUJITSU Way" • CSR Policy • Quality Initiatives • Information Security "Personal Data Protection Initiatives"	-
Customer Health and Safety				
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	6.3.9 6.6.6 6.7 6.7.4 6.7.5	• Quality Initiatives"Customer-Centric Quality Assurance Activities for Products and Services" • Green Procurement with a Centralized Global Procurement System • Product Recycling	9
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.		-	-
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	6.7 6.7.3 6.7.4 6.7.5 6.7.6 6.7.9	-	-
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.		• For Our Customers "Marking and Labeling of Product and Service"	-
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	6.7 6.7.4 6.7.5 6.7.6 6.7.8 6.7.9	• Quality Initiatives "Satisfaction and Quality Surveys by Third-Party Organizations"	-
Marketing Communications				
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	6.7 6.7.3 6.7.6 6.7.9	• For Our Customers "Directions in Advertising"	10
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.		-	-
Customer Privacy				
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	6.7 6.7.7	-	-
Compliance				
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	6.7 6.7.6	-	-

Ensuring the Reliability of Information Disclosure

Independent Assurance Report

Fujitsu Group Sustainability Report 2012 [Detailed Version] has been reviewed by an independent body, Ernst & Young Sustainability Co., Ltd., whose independent assurance report is attached.

ERNST & YOUNG   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

29 June 2012

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[1] of the Company and its major subsidiaries for the year ended 31 March 2012, that were reported in the Fujitsu Group Sustainability Report 2012 [Detailed Version] (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[2] 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[3] 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

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[1] 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).

[2] The reporting standards refer to the 2012 Environmental Reporting Guidelines of Japan's Ministry of the Environment, the 2011 Sustainability Reporting Guidelines of the Global Reporting Initiative(the GRI), and the 2011 Sustainability 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.

[3] 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.

This report has been duly granted the sustainability report audit and registration mark stipulated by the Japanese Association of Assurance Organization for Sustainability Information, which assures the reliability of the information presented here meets its standards.

- The Japanese Association of Assurance Organization for Sustainability Information

GRI Sustainability Reporting Guidelines, Version 3.1 (G3.1)

This report corresponds to GRI Application Level B+.
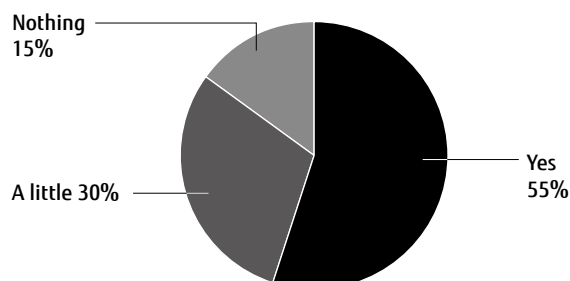A GRI guideline comparison table can be found on the following website.

- Fujitsu Group Sustainability Report 2012 GRI Guideline Comparison Table

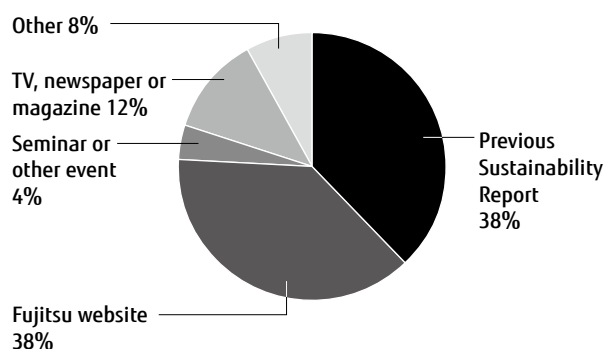# 2011 Fujitsu Group Sustainability Report Questionnaire Results

(As of July 2012)
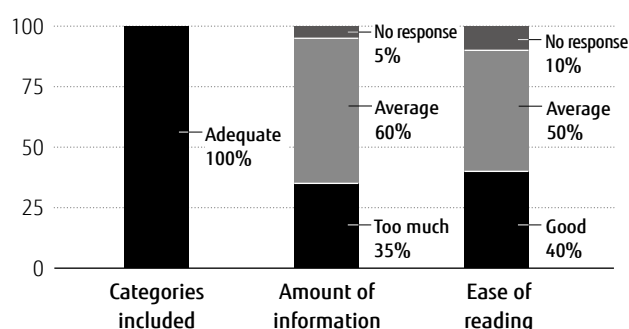
Questionnaire tabulation results, Respondents = 20

Q1 Did you know anything about Fujitsu's sustainability activities before reading the report?

Nothing 15%
A little 30%
Yes 55%

Q2 (For those who answered "Yes" or "A little" to Q1)
How did you come to know about them?

Other 8%
TV, newspaper or magazine 12%
Seminar or other event 4%
Fujitsu website 38%
Previous Sustainability Report 38%

Q3 What is your impression of this report?

Categories included: Adequate 100%
Amount of information: No response 5%, Average 60%, Too much 35%
Ease of reading: No response 10%, Average 50%, Good 40%
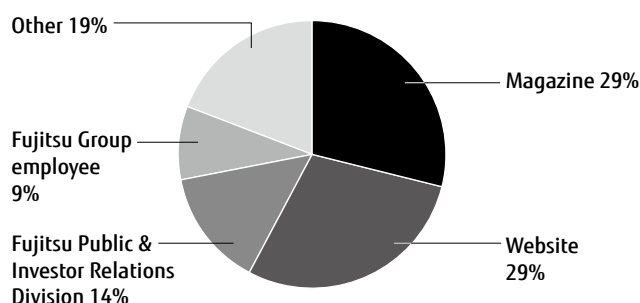
Q4 Which sections of this report were of the greatest interest?

Category title	Votes for this category
Strategic Vision of the Fujitsu Group	11
The Fujitsu Group's Response to the Great East Japan Earthquake	10
Message from Management	7
Priority 1 Highlights in 2011	7
Leading-Edge Green ICT Research and Development	7
Diversity and Inclusion	7
Approach to Human Rights and Work Practices	7

Q5 From what perspective did you read this report?

Other 26%
Corporate environmental staff member 4%
Financial, investment-related 4%
NGO/NPO member 9%
Fujitsu customer 9%
General consumer 17%
Student 9%
Shareholder 22%
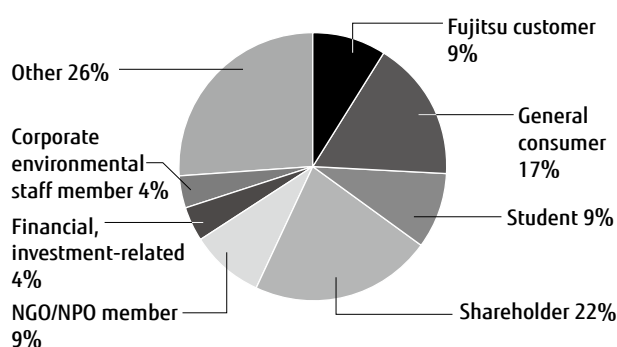
Q6 How did you learn about the existence of this report?

Other 19%
Fujitsu Group employee 9%
Fujitsu Public & Investor Relations Division 14%
Magazine 29%
Website 29%

Feedback from the questionnaire was used to improve the Sustainability Report 2012 in the following ways:

- The booklet was developed around articles considered to be of particular interest to readers, resulting in substantially fewer pages (98 pages in last year's report cut to 46 pages).
  (Items that could not be covered here are reported on the Fujitsu website)
- Used photos and charts to create a more readable, magazine-like format.
- Included sections marked "VOICE" that feature feedback from various stakeholders, including customers, business partners, employees and experts.

Perforated pages that can be easily folded and cut out.