For the Environment



Environmental Activities

Based on the statement "In all our actions, we protect the environment and contribute to society" in the Corporate Values of the Fujitsu Way, we have made environmental protection one of top management priorities to contribute to the creation of a sustainable environment for future generations.

From this approach, we drafted the Fujitsu Group Environmental Policy to promote environmental management in a way that reflects the distinct nature of our business. In addition, we formulated our Green Policy 21 environmental concept; Green Policy 2020, our medium-term environmental

Fujitsu Group Environmental Activities

vision with targets to meet by 2020; and the Fujitsu Group Environmental Protection Program (Stage V), designed to clarify specific objectives. In parallel with these policies, we are promoting Green Policy Innovation, which aims to mitigate the environmental impact of our customers and society as a whole by offering innovative Green IT solutions.

In pursuing these policies and targets, Fujitsu is striving to reduce the environmental impact of its own business, its customers' businesses, and society as a whole by planned and continuous promotion of activities across its business domains.



Environmental Concept Green Policy 21

Green Policy 21 is a bold concept for action that embodies efforts by Fujitsu since its establishment to move beyond declarations of intent and entrench the idea of "manufacturing in harmony with nature" in the mindset and day-to-day activities of Group employees. Bonded by the slogan, "We make every activity green," the Fujitsu Group is working to implement this environmental concept in all of its business domains.

In Green Policy 21 our global scale environmental activities are positioned centrally, under the title Green Policy Earth. Meanwhile our practical activities for realizing Green Policy Earth are organized under the headings Green Policy Products, Green Policy Factories, and Green Policy Solutions. The underlying support structure for these activities is called Green Policy Management.

WEB Environmental Concept "Green Policy 21"

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



We make every activity green

For the Environmen

The Fujitsu Group Environmental Policy

In 1992 (when Agenda 21* was adopted at the Rio de Janeiro Earth Summit), Fujitsu set out its Commitment to the Environment, based on the Global Environment Charter announced by Japan Federation of Economic Organizations the previous year. Then, in October 2002, (when the Johannesburg Summit was held, where the more effective implementation of Agenda 21 was discussed), Fujitsu revised its Environmental Commitment and renamed it The Fujitsu Group Environmental Policy. This was done in order to promote the kind of environmental management that would reflect the unique nature of the Group's business, in view of the increasing diversity of environmental issues and the growing importance of environmental management.

* Agenda 21

Agenda 21 is a concrete action plan that all countries and international organizations are supposed to follow in order to achieve sustainable development. It sets forth programs for addressing social and economic problems such as population, poverty and habitation, and environmental issues such as atmospheric and soil pollution, deforestation, desertification, sustainable agriculture, biodiversity, water resources, harmful waste emissions, and chemicals

WEB Fujitsu Group Environmental Policy

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

Green Policy 2020 Medium-term Environmental Vision Green Policy 2020 Concepts In our quest for solutions to

global environmental problems, we devised Green Policy 2020, a medium-term environmental vision that defines the role and direction of the Fujitsu Group through to the target date of 2020. Anchored by the keywords "Creation," "Collaboration," and "Change," this vision will promote environmental innovation at



Fujitsu and within society as a whole by leveraging the power of IT, with the goal of realizing a prosperous, low-carbon society.

Three goals we have set towards achieving this vision are to contribute to customers and society in general (by contributing to a 30 million ton reduction in CO₂ emissions in Japan by 2020), to achieve change within Fujitsu, and to preserve biodiversity. These goals form a framework for our ongoing initiatives.

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

Fujitsu Group Environmental Protection Program (Stage V)

We drafted Stage V of the Fujitsu Group Environmental Protection Program to guide our environmental activities during the period from fiscal 2007 to fiscal 2009. The program is founded on two basic policies: Develop environmental activities in which all employees can play an active role, and expand the scope of environmental activities to the entire supply chain. In line with these policies, we are working to achieve concrete targets in five

priority areas: improving the environmental value of products and services, implementing global warming countermeasures, reinforcing governance, reinforcing risk management, and making environmental contributions to society (see page 45).

Stage V Fujitsu Group Environmental Protection Program http://www.fujitsu.com/global/about/environment/management/ program/stage5/

Green Policy Innovation Initiative to Reduce Customers' Environmental Burden

In December 2007, the Fujitsu Group unveiled a new initiative called "Green Policy Innovation" to leverage the accumulated environmental expertise and technologies of the Fujitsu Group. With this project, we are vigorously promoting the reduction of customers' environmental burden by using "Green IT*" in two ways: first, reducing the environmental burden of IT infrastructure, and second, utilizing Green IT to reduce customers' burden on the environment. Our aim in this project is to reduce CO₂ emissions by 7 million tons or more over the 4-year period from fiscal 2007 to fiscal 2010 (see pages 10 to 17). "Green IT" is a general term that refers to eco-conscious IT equipment with greater energy efficiency, compact size, and other eco-friendly features, as well as IT solutions that, when adopted, can reduce the environmental burden.

Project for Reducing Environmental Burden through Green IT http://www.fujitsu.com/global/about/environment/gpi/

The History of Fujitsu's Environmental Activities 1935 • Park-style design adopted for new Kawasaki Plant

- at the suggestion of Fujitsu's founder, Manjiro Yoshimura.
- 1938 Kawaski Plant completed.
- 1972 •Environmental control sections established at each plant.
- 1989 •Environmental Committee established.
- 1991 Environmental Engineering Promotion Center established.
- 1992 Fujitsu's Commitment to the Environment formulated.
- 1993 Fujitsu Environmental Protection Program (Stage I) formulated
- 1997 •All domestic manufacturing sites certified ISO14001 compliant.
- 2000 •Corporate Environmental Affairs Unit established.
- 2002 Fujitsu Group Environmental Policy established.
- 2006 •ISO14001 globally integrated certification acquired, including overseas Group companies.
- 2007 Fujitsu Group Environmental Protection Program (Stage V) formulated.
 - •Green Policy Innovation project, which reduces our customers' environmental burden through Green IT, started.
- 2008 Green Policy 2020 medium-term environmental vision formulated.

Targets and Achievements

Establishing clear objectives that apply to all business areas of the Fujitsu Group, as well as carrying out well-planned and continuous environmental protection efforts.

Progress Status of the Stage V Fujitsu Group Environmental Protection Program

Five Priority Areas	Stage V Targets (to be achieved by end of FY 2009)	Targets (FY 2008)	Performance (FY 2008)	Status*4	Related Pages
Improving the Environ- mental Value of Products	Increase the number of Super Green Products ^{*1} Targeting the Green Products being newly developed in all business units, by the end of fiscal 2009 we aim to increase to over 50% the proportion of products that are Super Green Products with top-class environmental characteristics.	Super Green Products ratio: 33%	Certified 42 product families among Super Green Products. Achieved a 46% ratio of Super Green Products in all Green Products.	0	P53-
and Services	Achieve an improved environmental efficiency factor By fiscal 2009 we will strive to achieve an environmental efficiency factor of "2" relative to products in fiscal 2005 for newly developed Green Products in all business units.	Achieve Factor: 1.75	Achieved a factor of 2.9 on average across the Fujitsu group newly-developed products in fiscal 2008	0	P55
	Maintain resource reuse and recycling rate of recovered end-of- life products ^{#2} Maintain the resource reuse and recycling rate of business IT equipment achieved in the Stage IV Fujitsu Group Environmental Protection Program (at 90% or higher).	Resource reuse and recycling rate: 90% or higher	Resource reuse and recycling rate: 91.5%	0	P59-
	Expand environmental solution offerings We will strive to offer Environmentally Conscious IT Solutions in all areas of our business by fiscal 2009.	Expand to 28 the number of areas where our environmental solutions have been certified or registered in the SI and outsourcing areas.	Increased the number of areas with certified or registered environmental solutions to achieve 28 in the SI and outsourcing areas.	0	P57-
Global Warming Counter- measures	Reduce CO ₂ emissions from energy consumption • Global: Reduce CO ₂ emissions per unit sales to 28% below fiscal 1990 levels by the end of fiscal 2010. • Japan: Limit energy consumption-related CO ₂ emissions at our business sites to below fiscal 1990 levels by the end of fiscal 2010	Global: Reduce by 60 to 68% from fiscal 1990 levels Japan: Hold down to a 17% increase over fiscal 1990 levels	Global: Reduced by 67.8% from fiscal 1990 levels Japan: Held down to a 3.0% increase over fiscal 1990 levels	0	P61-
	Reduce greenhouse gases other than CO ₂ We will work to reduce emissions of greenhouse gases other than CO ₂ by 10% relative to fiscal 1995 emissions by the end of fiscal 2010.	Hold down to a 140% increase over fiscal 1995 levels	Held down to a 65.3% increase over fiscal 1995 levels	0	P61-
	Apply Green Factory and Green Office systems We seek to achieve a two star or higher ranking* in the Green Factory or Green Office systems at all our business sites by the end of fiscal 2009. * Specific achievement level under an original Fujitsu evaluation standard	Achieve two star (★★) or higher ranking at 80% of business sites	• Factories: achieved at 81% of sites	0	
			 Offices: achieved at 77% of sites 		P63-
	Reduce VOC emissions We aim to reduce volatile organic compound (VOC) emissions by 30% relative to fiscal 2000 levels by fiscal 2009.	Keep to $\pm 0\%$ relative to fiscal 2000 levels	Reduced by 28% from fiscal 2000 levels	0	P63-
	Reduce waste generation We will strive to reduce waste generation by 3% relative to 2005 levels by the end of fiscal 2009.	Keep to $\pm 0\%$ relative to fiscal 2005 levels	Reduced by 10.4% relative to fiscal 2005 levels	0	P63-
	Reduce CO₂ emissions during distribution and transport ^{#3} We will strive to reduce the volume of transport-related CO ₂ emissions by 40% from fiscal 2000 levels by the end of fiscal 2010.	Reduce by 27% from fiscal 2000 levels	Reduced by 38% from fiscal 2000 levels	0	P68
Reinforcing Governance Reinforcing Risk Manage- ment Environmen- tal Contribu- tions to Society	Improve our environmental management system (EMS) We will strengthen environmental activities in our business by improving our globally integrated environmental management system.	 Broaden scope of application of EMS. Strengthen environmental programs of main businesses by devolving responsibility to individual BUs (business units). Improve quality of internal auditing by increasing number of publicly-certified auditors. Strengthen office environmental activities. 	 Introduced EMS to a wider range of companies. Established environmental activity councils at product BUs. Registered 46 publicly- certified auditors. Increased number of offices with Green Office status. 	0	P46-
	Advance green procurement activities We will strengthen environmental activities throughout our supply chain and support the activities of our business partners. • We will promote improvements in our business partners' environmental management systems, for example, encouraging them to obtain third-party certification such as ISO14001. • We will promote construction of chemical substance management systems (CMS) by our business partners.	 Operate a level II (FJEMS) or higher EMS for 85% of structural material business partners Construct CMS systems for 95% of structural material business partners 	 Operating rate for Level II or higher EMSs: 92.9% CMS construction rate: 97.6% 	0	P67
	Activities for environmental contributions to society We will carry out locally attuned activities that make environmental contributions to society and in which each of our employees can play an important role.	Number of activities that make environmental contributions to society implemented • Japan: One per year at all business sites • Overseas: One every three years at all business sites	Japan: Implemented at all sites Overseas: Implemented at 33% of all sites	0	P69

*1 As the level achieved in fiscal 2007 far exceeded the original target, the target was increased by 50% from FY 2008 on.

*2 Since the quantity of products recovered decreased as products were downsized, the target was changed in FY 2008 to 'maintain a resource reuse ratio of 90% or higher', and it was redesignated from an action-plan target to an internal management indicator.

*3 As the level achieved in FY 2008 far exceeded the original target, the target was increased by 40% from FY 2009 on.

*4 A circle (\bigcirc) indicates full achievement of a target, while a triangle (\triangle) indicates only partial achievement.

Environmental Management

We are continuously working to improve our ISO14001-based environmental management system and to promote unified environmental management of the Fujitsu Group.

EMS Implementation and Operational Status Environmental Promotion Structure

The Fujitsu Group's environmental management system (EMS) is based on the company's business group organization in order to facilitate rapid management decision-making, and consists of a matrix structure combining 'line programs' for promoting environmental protection activities tailored to each group's particular operating characteristics and 'business-site programs' under which individual factories and offices tackle common themes.

The final decisions on environmental management are taken at meetings of the Management Council, which is headed by the company's President and has two committees - the Environmental Committee and the Low Carbon Committee under its direct authority. The Environmental Committee sets up subcommittees staffed by those responsible for specific environmental protection programs, transcending the structure of business groups and units, to consider matters such as environmental action plans and improving the EMS. The Environmental Committee manages and integrates the results of these subcommittees' deliberations and reports them to the Management Council. The new Low Carbon Committee, established in September 2008, is staffed by business group operations executives and was set up to review company policy particularly in relation to the prevention of global warming, for example by reducing emissions associated with the Group's own operations.

An EMS Committee with a Factory Working Group and Overseas EMS Committee under its authority has also been set up to communicate the results of these discussions and reviews throughout the Group and ensure that they are understood, assimilated, and acted on dynamically. The EMS Committee convenes those responsible from each business

Structure for Environmental Activities



group and informs the various divisions and group companies of what the Group requires them to do. The Factory Working Group brings together environmental coordinators from the Group's manufacturing facilities to deliberate matters such as establishing common environmental standards, and issues affecting the operation of the EMS. Meanwhile, environmental coordinators from Group companies outside Japan attend Overseas EMS Committee meetings to hear about and discuss the Group's environmental requirements.

In FY 2008, the Stage V Fujitsu Group Environmental Protection Program called for the Group's main businesses to be strengthened by raising the quality of its globally integrated EMS. In line with this, the scope of EMS application was broadened, environmental activities in its main businesses were strengthened, and policies implemented to improve the quality of internal auditors.

Establishment of BU Environmental Activities Councils

In the Stage V Fujitsu Group Environmental Protection Program, Fujitsu has specified strengthening the environmental programs of its main businesses.

Moving towards practical implementation, it was decided in the FY 2007 management review to promote a shift toward more autonomous environmental activities. BU Environmental Activities Councils, attended by the senior managers of the BUs under the control of each business group, were set up at the BU level for this purpose. This has made the BUs the key stakeholders and has enabled them to implement environmental programs tailored to their particular operations (both products and services), strengthening their activities not only at the site (factory or office) level but also at the line (business) level.

In FY 2008, these activities were centered mainly on product BUs, but it is planned to extend them to include solutions BUs and address them in similar ways from FY 2009 on.

Operation of globally integrated ISO14001 certification

We obtained integrated ISO14001 certification, which is an international EMS standard, covering our domestic consolidated subsidiaries at the end of fiscal 2004. Fujitsu and Group companies in Japan (a total of 97 companies), together with 11 overseas companies, now operate their environmental programs under a single management system. After acquiring integrated certification, an annual surveillance audit was performed until FY 2007, and then in FY 2008 the first renewal audit was performed and the certification registration document was rewritten.

Since 31 of our consolidated overseas non-manufacturing subsidiaries have constructed and are operating an EMS based on common standards derived from the Fujitsu Group's environmental policy, we have now established an environmental management system that covers the entire Group.

We are also aiming to utilize the EMS to achieve strengthened group governance through, for example, achievement status

With Global and Local Communities

Environmental Management

reports for the Environmental Protection Program (Stage V), efforts towards compliance in each group company, handling of emergency situations, environmental communication activities, collection of quarterly environmental protection activity reports, and implementing management reviews also covering overseas operations.

Fujitsu Group Wins Continuation Award for its EMS.

The Fujitsu Group has won an award from JACO (Japan Audit and Certification Organization for Environment and Quality) for operating its EMS continuously for the last 13 years. This award recognizes the sustained improvement of environmental programs run by registered organizations. Corporate First Senior Vice President Junichi Murashima received the trophy on behalf of the Fujitsu Group from JACO's President Yasunori Shimoi.

To commemorate the winning of this prize, EMS 10-Year Continuation Award trophies were also presented to 25 Fujitsu factories and Group company sites that had maintained their registration for a period of at least ten consecutive years.

Implementing Environmental Audits (internal audits)

To ensure that our internal audits are fully objective and independent, they are directed by a Corporate Internal Audit Division unaffiliated with any line organization and are performed by auditors from Fujitsu and Group companies.

From July through December of FY 2008, 536 Fujitsu Group factories, offices and other facilities in Japan and abroad were internally audited. During these audits, the trends in items highlighted in the FY 2007 round of internal audits were examined together with the results of external audits, with two top priorities: (1) confirming compliance and (2) confirming main business activity status and supporting performance improvement. Sales divisions also audited each other in fiscal 2008, with the aim of stimulating their environmental programs by reflecting their experience of auditing another division in their own activities.

The result of these internal audits was a total of 584 findings, including 89 minor nonconformances and no major ones. Most of the findings related to compliance (mainly to do with industrial waste), operations management (observance of self-imposed rules) and environmental aspects (either omitted or not evaluated satisfactorily). All of the findings had been resolved by the end of fiscal 2008.

External audits were also performed from July through December of fiscal 2008. Group companies in Japan were audited by JACO, which listed seven minor nonconformances, while overseas Group companies were audited by DNV (Det Norske Veritas), which found 16. Neither auditing company discovered any major nonconformances. When the results of the audits were combined, it was found that, in Japan, most of the nonconformances related to objectives and targets, operational management and management reviews. In Japan, all of the nonconformances had been corrected by the end of fiscal 2008, while their status at overseas companies will be reviewed in the fiscal 2009 round of external audits.

Status of Environmental Compliance

While the Fujitsu Group made no major violations of environmental law and caused no accidents that had any major impact on the environment in FY 2008, there were 13 events in which laws were violated or our own standards were exceeded. These consisted of matters like exceeding the allowable limits for water quality and noise, inadequacies in contracts and other documentation, and failing to make the required submissions to official authorities.

We will do our best to prevent any recurrence of such incidents.

Environmental Education and Enlightenment

In order to promote environmental activities with the participation of all employees, the Fujitsu Group is implementing a wide range of environmental education and enlightenment efforts for employees in all divisions based on the idea that improving the environmental awareness of every one of our employees is required. We have also established a system for recognizing outstanding efforts.

Our Environmental Education System

To ensure that our environmental activities take firm hold, the Fujitsu Group believes it essential to inculcate and raise the environmental awareness of each and every employee to a point where it translates into actual practice. To this end, the Group has been carrying out environmental education and enlightenment training since 1995, based on the system described below.

In addition to having all of our employees undertake environmental E-learning once every three years to acquire a basic understanding of environmental issues, environmental education also forms a part of the general training given to new entrants when they join the company and to ordinary employees, middle managers and senior executives whenever they are promoted. On top of this, customized environmental

Fujitsu's Environmental Education System



training is also delivered to individual areas of the business such as sales, systems engineering (SE), design, quality assurance and production.

Some Group companies also run their own environmental training programs. Fujitsu CoWorCo, for example, set up its 'Eco-Creator' internal certification system in 2008, and the whole company is working on developing a workforce highly aware of environmental considerations.

Internal Award System

To raise the environmental awareness of employees in all the Fujitsu Group companies, we have operated an Environmental Contribution Award scheme and an Environmental Contest (with a photo division and an eco-life division), open to all employees, every year since 1995. Since fiscal 2002, the Environmental Contribution Awards 1st Award has been designated a 'Key Award' and is conferred by our President at the company's annual Foundation Day celebration held each June.

Implementing Environmental E-Learning

Once every three years, we run an environmental e-learning program for all Group employees with the object of implementing environmental protection activities conforming to ISO14001 and promoting the awareness, understanding and implementation of the Stage V Fujitsu Group Environmental Protection Program.

Also, in FY 2008, we delivered an E-learning program titled 'Win the Deal with Green IT!' for sales and SE employees from

all of our domestic Group companies. This program, designed to teach trainees about Fujitsu's environmental business and Green IT in an easily-assimilated way through the use of dialogs and case studies, was participated in by some 12,000 people.

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Environmental Leader Course

In April 2009, people responsible for promoting the Fujitsu Group's environmental management system gathered at the Group's Nakatosa Kuroshio no Mori resort house in Nakatosacho, Kochi Prefecture, for a one-night, two-day training course.

The theme of the course was biodiversity, and the participants gained a new awareness of this issue while learning about ecosystems, by observing local soil organisms and undertaking exercises designed to encourage thinking about what companies should do to lighten the burden they place on biodiversity.

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. These materials cover a wide range of subjects including basic global environmental issues, other companies' environmental businesses, and IT's contribution to the environment. They are

designed to promote a wider understanding not just among people engaged in environmental business but also among ordinary employees.



Global Environmental Issue Keywords book and E-learning Screen

Promoting Environmental Management Utilizing IT

To improve the efficiency and visibility of our environmental management, the Fujitsu Group makes aggressive use of its unique environmental management tools, which take full advantage if IT.

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



With Our Employees

Environmental Management

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

Conservation of Biodiversity

The mass consumption of energy and natural resources through human activities such as industry, the emission of greenhouse gases and the expansion of populated areas all promote climate change and environmental destruction, severely affecting global ecosystems.

Against this background, Fujitsu joined other companies in signing the Initiative on Business and Biodiversity leadership declaration at the 9th Meeting of the Conference of the Parties to the Convention on Biological Diversity held in May 2008 in

Germany. Conservation of biodiversity was also cited as one of the objectives in the Fujitsu Group's Green Policy 2020 mediumterm environmental vision published in July of the same year, in which the



Signing the Initiative on Business and Biodiversity

Group pledges to promote all of the items in the "Initiative on Business and Biodiversity" leadership declaration and implement specific initiatives by the year 2020.

The Fujitsu Group addresses the conservation of biodiversity from the twin aspects of its business activities (working to reduce the burden these place on biodiversity) and its social contribution programs (using these to promote biodiversity regeneration and conservation). It also implements a wide range of programs concerned with educating people about the natural environment.

Reducing the Environmental Burden Placed on Biodiversity by Business Activities

In the business activities of manufacturing industry, there is a need to tackle the reduction of the environmental burden on biodiversity in all phases of a product's life cycle, namely research, design, development, procurement, production, transportation, marketing, utilization and recovery. Fujitsu is currently formulating internal guidelines for conserving biodiversity, and will promote environmental impact assessment and reduction initiatives at every phase.

Furthermore, in order to extend the initiative reducing the environmental burden on biodiversity to cover the entire supply chain, we promote and evaluate the biodiversity initiatives of our suppliers. Supplier biodiversity initiatives have been included for this purpose since FY 2009 in the list of environment/reliability items evaluated under our supplier evaluation system. This system evaluates our principal suppliers from the perspectives of quality, technology, price, supply, and environment/reliability.

Now and into the future, the Fujitsu Group aims to contribute to the conservation of biodiversity through the provision of IT products and services while progressively reducing the environmental burden placed on biodiversity by Group business activities.

Promoting Biodiversity Regeneration and Conservation through Social Contribution Programs

More than half of the main distribution areas of rare species in Japan are said to exist in SATOYAMA, natural environments close to populated areas. However, the number of exotic species in such areas is increasing, leading to a decline in indigenous species.

In November 2008, 44 Fujitsu Group employees and family members took part in a SATOYAMA conservation day at Shishitsuka, Tsuchiura City, Ibaraki Prefecture, to help eradicate bluegills, black bass, Canada goldenrod and other non-native

species. Guided by members of the Shishitsuka Nature and History Association (an NPO that conducts ongoing conservation of the local natural environment), the participants also enjoyed observing wild fungi and making eating utensils from bamboo.



Participants Enjoying the Conservation Day

Environmental Accounting

Understanding and evaluating the costs and benefits of effective environmental protection activities helps to identify problems and share best practices across the Group.

Fiscal 2008 Results

As the table below indicates, the Fujitsu Group's FY 2008 environmental accounting results showed a 1.76 billion yen investment in plant and equipment (20 million more than the previous year), expenses of 20.64 billion yen (1.21 billion more than the previous year), and an economic benefit of 27.12 billion yen (4.58 billion less than the previous year).

The main reason why expenses increased by around 1.2 billion yen over the previous year was that administrative costs (chiefly expenses for environmental advertising campaigns such as a series of corporate commercials publicizing the Group's vigorous initiatives to reduce environmental burden by Green IT) went up by approximately 1.5 times to around 4.6 billion yen.

The main cause of the decline in economic benefit of around 4.6 billion yen below the previous year was a large drop in the contribution of environmental conservation activities to value added in manufacturing (the pollution prevention benefit). This is one of the benefits estimated in accordance with the Group's own guidelines. The drop was due to a decrease in the value added by Group companies resulting from the sudden deterioration in the business environment prompted by the worldwide recession. The global environmental conservation benefit also fell by around 600 million yen as a result of the completion of a round of energy-saving programs (such as improving the operation and tightening the control of environmental conservation equipment). Profits from the sale of valuable resources no longer needed by electronic device subsidiaries, which had been increasing until the previous fiscal year, reversed into a decline with the slowdown in surging market prices for precious metals. Nevertheless, increased benefits associated with the promotion of reduce-and-reuse activities continuing from the previous fiscal year helped to keep the decline in the resource circulation benefit

to around 300 million yen.

Also, while it had no effect on the results of the Group as a whole, the breakdown of the overall results changed as a consequence of the LSI business having been spun off into a separate company the previous fiscal year, so that around 200 million yen's worth of equipment investment, 2.7 billion of expenses and 3.7 billion of economic benefits were subtracted from the results for Fujitsu alone and added to the results of its subsidiaries.

There has also been a change to the scope of the aggregation; Fujitsu Automation Limited ceased to be subject to Fujitsu's consolidated accounting in December 2008, so it has been removed from the aggregation for fiscal 2008 in the environmental accounts. However, the effect of this is insignificant, since its equipment investment, expenses and economic benefits were all less than 100 million yen based on the results for the previous fiscal year.



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

Trends in Costs and Economic Benefits

Costs Actual benefits ZZZ Estimated benefits

Capital inve

0.0 (±0.0)

0.2 (+0.2)

17.6 (+0.2)



Costs (100

0.2 (±0.0)

15.0 (+1.6)

206.4 (+12.1)

Related

P63-65

P61-62.68

P63-64

P59-60,67

P63-64,66

P53-56

P69

P65

omic benefits

51.3 (-31.2)

20.0 (-5.5)

165.9 (-2.7)

5.2 (-1.2)

5.9 (-2.3)

19.0 (+1.2)

4.0 (-4.0)

271.2 (-45.8)

With Our Customers

With Our Employees

For Our Shareholders and Investors

With Our Business Partners

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Business area costs/ benefits	Pollution prevention costs/ benefits	Preventing air pollution/water pollution, etc.	2.9 (-2.9)	49.7 (-2.1)	
	Global environmental conservation costs/benefits	Preventing global warming, saving energy, etc.	9.9 (+1.7)	27.5 (+1.9)	
	Resource circulation costs/ benefits	Disposal of waste, efficient utilization of resources, etc.	0.9 (+0.4)	34.5 (-3.5)	
Upstream/downstream costs/benefits		Collection, recycling, reuse, and proper disposal of products, etc.	0.1 (-0.3)	10.3 (-2.1)	
Administration	costs/benefits	Provision and operation of environmental management systems, environmental education of employees, etc.	1.4 (-0.5)	46.3 (+16.3)	
R&D costs/benefits		Research and development on products that	2.1 (+1.5)	22.9 (±0.0)	

Donations to, and support for, environmental groups

Restoration and other measures related to soil and

Environmental Accounting

Social activity costs

Environmental remediation costs/ benefits

Numbers in parentheses indicate increases or decreases in comparison with the previous year.

etc

Total

• Due to rounding, figures in columns may not add up to the totals shown.

• See pages 51 and 52 for details on the environmental performance index (environmental conservation benefits).

groundwater contamination

Operating Activities and Environmental Burden(Material Balance)

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

Material Balance



Calculation Methods

INPUT				
Development / Planning & Design	nt / Raw Materials Material inputs to our major products* shipped in fiscal 2008 (raw materials per unit for each product times the number of units shipped in fiscal 2008) * Major products: Personal computers, mobile phones, servers, workstations, storage systems, magnetic disk drives, MO drives, printers, scanners, financial te retail terminals, routers, LAN access equipment, access network products, mobile phone base stations, and electronic devices.			
Procurement Manufacturing / Development	Chemical Substances	Volume of PRTR Law target chemicals handled by plants/sites in fiscal 2008		
	Water	Volume used by plants/sites in fiscal 2008		
	Energy	Electricity, oil and gas consumed by plants/sites in fiscal 2008		
Distribution/ Sales	Energy	Energy consumption in transportation in fiscal 2008		
Usage	Energy	Electricity consumption by major products shipped in fiscal 2008 (Assumed hours of use per product x age-based electricity consumption x the number of units shipped in fiscal 2008)		
Collection/Reuse/Recycling		The weight ratio of recycled parts and resources with respect to the processing volume of post-use products is calculated according to the method of the Japan Electronics and Information Technology Industries Association. It excludes collected waste other than post-use electronic products.		



Calculation Methods

OUTPUT				
Development / Planning & Design Procurement	Raw Materials	Material inputs to our major products* shipped in fiscal 2008 (per-unit volume of CO ₂ emitted from mining the resource until it becomes a raw material for each product times the number of units shipped in fiscal 2008) * Main products: Personal computers, mobile phones, servers, workstations, storage systems, magnetic disk drives, MO drives, printers, scanners, financial terminals, retail terminals, routers, LAN access equipment, access network products, mobile phone base stations, and electronic devices.		
Manufacturing / Chemical Substances Measuring the concentrations of PRTR Law target chemicals discharged through plants' drains and exhaust ports in fiscal 2008 and multiplying the to discharged (nickel compounds, manganese compounds, etc.) or total volume emitted (xylene, toluene, etc.), or calculating based on the chemical sub-				
	Atmospheric Release	CO2: CO2 discharge volume associated with energy consumption by plants/sites in fiscal 2008 (Energy consumption times CO2 conversion factor) NOx, SOx: Calculated from concentrations in gases discharged from vents (boilers, etc.) by plants/offices in fiscal 2008 Greenhouse gases other than CO2: Discharge volume of process gases used in semiconductor manufacturing in fiscal 2008. (Calculated by formulas such as <volume gas="" of="" used=""> × <ratio consumed="" in="" reactions=""> × <detoxification ratio="">) VOC: Emission amounts of the substances subject to emissions restrictions stipulated by the four electric and electronics associations for factories and business sites for fiscal 2008</detoxification></ratio></volume>		
	Water Discharge	 Wastewater volume discharged by plants/sites into sewerage or rivers in fiscal 2008 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 fiscal 2008 Volume of Waste Disposal: The volume of landfill disposal and simple incineration by plants/sites in fiscal 2008 (including waste which is not a zero emission target)		
Distribution/ Sales	Atmospheric Release	The total volume of CO ₂ emissions in fiscal 2008, including both fuel consumption by Fujitsu's shipping business when measurable, and shipping distance x freight weight x coefficient when the freight of companies other than Fujitsu is included, as in mixed load transportation		
Usage	Atmospheric Release	The volume of CO ₂ emissions during use of major products shipped in fiscal 2008 (Amount of energy consumed x CO ₂ 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 2008)		

With Global and Local Communities

With Our Business Partners

Eco-Friendly Products

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

Green and Super Green Product Development

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

Moreover, in 1998, to further strengthen development of eco-friendly products, we established Green Product Evaluation Standards and positioned the products that satisfy them as Green Products. Then, in fiscal 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 fiscal 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 eco-friendly 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.

In fiscal 2008, 42 product families were recognized as Super Green Products.

* 3R design

Design based on the principles of reduce, reuse and recycle

Carrying Out Life Cycle Assessment (LCA)

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

Performing LCA 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.

* Our Own Database

This is our own unique database of unit values, created by Fujitsu Laboratories Ltd based on input-output tables.





Fujitsu Limited

- SIP telephones: IP Pathfinder / CL Series
- Network servers: IPCOM EX2200 / EX2200 duplex power source type
- SIP server IP-PBX: IP Pathfinder CS RM60S2 and RM65D2
- Real-time image transmission devices: IP-900 Series (IP900E, IP-900D, IP-910E and IP-910D)
- Optical transmission system: FLASHWAVE 9500
- Wireless base station equipment: W-CDMA-OF-TRX
- UNIX server: SPARC Enterprise M3000
- Notebook PCs: FMV-LIFEBOOK R8250, FMV-LIFEBOOK P8260, FMV-LIFEBOOK B8260, FMV-LIFEBOOK T8160 / T8260, FMV-LIFEBOOK TB14/B, FMV-LIFEBOOK E8260 / E8270, FMV-LIFEBOOK A8260, FMV-BIBLO LOOX U/B50 and FMV-BIBLO LOOX R/B70 / R/B50
- PC Workstation: CELCIUS J360
- Desktop PCs: FMV-DESKPOWER CE/B90, FMV-DESKPOWER EK/B50, FMV-DESKPOWER F/B50 and FMV-ESPRIMO D5170
- PC Servers: PRIMERGY Econel 100S2, PRIMERGY TX120 S2, PRIMERGY RX300S4 and PRIMERGY TX150S6
- Blade server: PRIMERGY BX620 S4
- Mobile phones: Raku-Raku Phones (F884i, F883iS and F884iES)
- Hard disk drives: Portable HD: HandyDrive 400 series 2.5" SATA HDDs: MHZ2 BH series, MHZ2 BS series, MHZ2 BJ / MHZ2 CJ series, MHZ2 BK series, MHZ2 BT series and MJA2 BH / MJA2 CH series

Subsidiary companies and affiliates

- Access Network Equipment: FA2132 GE-PON-ONU gigabit ethernet passive optical network system (Fujitsu Telecom Networks Ltd)
- Banking terminal: UBT-First (Fujitsu Frontech Ltd)

2.5" SAS HDDs: MBD2 RC series and MBE2 RC series

- Connectors: 10 Gbps capable test board and 260S-type connector (Fujitsu Component Ltd)
- Power source controller: IP Remote Power Source Controller (4-Port RPC2) (Fujitsu Component Ltd)
- Keyboards
- Compact and Light 1618 for FA (Fujitsu Component Ltd)
- Touch panels: Cushioned Touch Panel (Fujitsu Component Ltd)
- Relays: FTR-F3P Relay, FTR-F1L Relay (Fujitsu Component Ltd)
- Thermal printers
- FTP-63AMCL401-R (Fujitsu Component Ltd) FI-32L (Fujitsu Isotec Ltd)
- Multiplex wireless device: NFRX-DT (Fujitsu Wireless Systems Ltd)
- Converter ICs: MB39C308 6-ch DC/DC converter IC for UMPC and MB39C309 7-ch DC/DC converter IC with integral SW FET (Fujitsu Microelectronics Ltd)
- FCRAM: MB81EDS256545 256-Mbit consumer FCRAM (Fujitsu Microelectronics Ltd)

* New products developed in fiscal 2008 are shown

Super Green Product Development Examples



2009 FUJITSU GROUP SUSTAINABILITY REPORT

Eco-Friendly Products

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 personal computers under the EPEAT^{*1} system, which encourages the purchase of green PCs and is used chiefly by US government bodies. Product environmental information for computers, magnetic disk devices, displays, printers and scanners covered by green purchasing laws^{*2} is published on the Ministry of the Environment's website^{*3}, while the equivalent information for computers, displays, printers and scanners conforming to the International Energy Star Program in Japan is published on the website of the Energy Conservation Center, Japan^{*4}.

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

Reducing Product Environmental Burden by Using the Environmental Efficiency Factor

In fiscal 2007, the Fujitsu Group introduced the eco-efficiency factor*, which evaluates both increases in product value and reductions in its environmental burden at the same time. The factor is calculated for newly-developed Green Products in comparison with FY 2005 products.

On average, the factor was 2.9 for the Fujitsu Group as a whole for products developed in fiscal 2008, considerably exceeding that fiscal year's target of 1.75. Fujitsu will continue to work for improvements in environmental performance to maintain our eco-efficiency factor at a high level in future product development.

* 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 at even lower environmental burden.



Research and Development on Leading-Edge Environmental Technologies

Fujitsu and Fujitsu Laboratories, Ltd. carry out R&D on advanced environmental technologies to support the development of Green Products and Super Green Products. In addition to adopting bio-based plastics in notebook PCs for the first time in the industry, we have achieved a variety of successes, including developing (in April 2008) technology for real-time monitoring of the temperature distribution in data centers.

Developing Technologies that Help to Combat Climate Change

One of the energy-saving technologies that Fujitsu Laboratories, Ltd., has developed is an innovation, based on optical fibers, that enables detailed, real-time temperature distribution measurement in large datacenters containing many servers.

Through a single optical fiber, this technology makes it possible to measure simultaneously the temperature of over 10,000 areas in a facility, thereby enabling detailed visibility of temperature distribution in large datacenters. Combining this technology with an air-conditioning control system will enable finely-tuned air conditioning, allowing for more energyefficient large-scale data centers. We intend to offer this as an air conditioning monitoring and control solution in the future.

Fujitsu Develops Technology Enabling Real-time Multiple-Point Temperature Measurement http://www.fujitsu.com/global/news/pr/archives/month/2008/ 20080404-01.html

Developing Plant-Based Plastics

Although plant-based plastics impose a lower burden on the environment and help to reduce the consumption of petroleum resources, their use in products such as PCs has been problematical because of their poor heat resistance and lack of flameproofing.

Fujitsu has developed a new plant-based plastic with better heat resistance, and has incorporated it into its FMV-BIBLO NW90C notebook computer model (released in Spring 2009), where it forms 70% of the notebook's case.

Fujitsu will continue to develop versatile plant-based plastics applicable to a wide range of products and promote their more extensive use in electronic equipment. It will also pursue the use of non-food raw materials that do not compete with food crops



The FMV-BIBLO NW90C, which utilizes plant-based plastic

in the production of these plastics.

Management of restricted chemical substances in products

The Fujitsu Group designates substances that have been scientifically proven to be 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 follow the precautionary principle and designate substances suspected of being harmful (Substances of Concern) as 'Fujitsu Group Specified Controlled Substances, even when their harmfulness has not yet been fully demonstrated.

Compliance for Legally-Regulated Chemicals

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

We have also established Fujitsu Group Green Procurement Standards and are strengthening our control of the chemicals included in our products by focusing on source control and advising our suppliers on how to achieve rigorous control of the chemicals in their products by constructing chemical management systems (CMS).

In response to regulations such as the RoHS*1 Directive, we have taken systematic action covering the entire supply chain by constructing a system headed by our product business division (which is responsible for product operations) and including our quality assurance, purchasing, and environmental divisions, to manage chemical substances rigorously and comprehensively in all processes from design through to delivery.



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

As far as our response to the REACH regulation*2 is concerned, we regard this as an issue for the entire supply chain. Participating in the activities of industry associations such as the Joint Article Management Promotion-consortium (JAMP) and the Japan Green Procurement Survey Standardization Initiative (JGPSSI), we are working out how to construct a scheme for communicating information efficiently. In fiscal 2008, we promoted the compatibility of our internal structures and systems with the REACH regulation.

*1 RoHS Directive

Restriction of the use of certain hazardous substances in electrical and electric eauipment *2 REACH Regulation

Regulation concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals.

•Some Examples of Fujitsu Group Specified Banned Substances

- Ashestos • Lead Polybrominated diphenyl ethers Cadmium
 - Mercury • Polybrominated biphenyls
- Hexavalent chromium
 PFOS Polychlorinated biphenyls

Controlling Substances of Concern

The Fujitsu Group defines Substances of Concern as 'Fujitsu Group Specified Controlled Substances,' and controls the amounts of such substances included in our products.

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

We plan to carry out a review of substances in fiscal 2009 with a view to bringing them into line with the REACH regulation and other directives.

•Some Examples of Fujitsu Group Specified Controlled Substances

- Brominated flame retardants (except PBBs and PBDEs)
- Some phthalic acid esters (DEHP, DBP, DINP, DIDP, BBP, DNOP) • Polyvinyl chloride (PVC)

Using IT to Control the Chemicals in Our Products

The Fujitsu Group gathers information on the chemicals contained in the components and materials it purchases from its suppliers through its supply chain. It compiles this information on a database and operates a system devised to enable ecofriendly materials to be selected at the design stage.

It also offers an environmental business solution called PLEMIA/ECODUCE*, a software package that utilizes this inhouse expertise. In fiscal 2008, the Group launched a version of this software compatible with the REACH regulation. * The PLEMIA/ECODUCE website (in Japanese):

http://jp.fujitsu.com/solutions/plm/pdm/plemia/option-04.html

Environmental Solutions

The Fujitsu Group develops and offers a wide range of environmental solutions to support environmental management, aimed at both reducing environmental burdens and increasing economic value.

The Basic Thinking behind Our Environmental Solutions

Companies' environmental initiatives need to go forward not only as a means of reducing the burden their operations impose on the environment and as a response to risks such as laws and regulations, but also in the form of the kind of environmental management that leads to the company's growth, through the implementation of environmental activities matched to its business strategy.

At Fujitsu, we support the continual advancement of our customers' environmental management by providing solutions that help the environment (reducing the environmental burden while increasing economic value) and environmental management solutions.

Providing Solutions that Help the Environment

The Fujitsu Group utilizes environmental impact assessment techniques to quantitatively evaluate the environmental burden reduction benefits of using our software and IT services/solutions, and develop and provide eco-friendly solutions that help to reduce our customers' environmental burdens. By the end of fiscal 2008, we had certified a total of 160 products (including an increase of 55 in fiscal 2008), and had provided them to customers in a wide range of businesses and industrial fields.

From 2007, we have also introduced the Environmentally Conscious Solutions Registration System, a qualitative environmental assessment. This is not limited to earlier business areas but also targets efficiency-improving tools for corporate internal use. We have registered 206 proposals as a system that all employees can work with.

We are also expanding the software and IT solutions business areas we offer as Eco-Friendly and Environmentally Conscious Solutions from a package-centered approach (we achieved complete coverage of all areas in Stage IV) to the SI and outsourcing areas, and have deployed this approach in all of the business areas.

The Stage V Fujitsu Group Environmental Protection Program included a fiscal 2008 standalone target of expanding to 28 the number of SI and outsourcing areas in which our environmental solutions have been certified or registered, and we were able to meet this target.

In fiscal 2009, we aim to probe even more deeply in all areas.

Environmentally Conscious Solutions http://www.fujitsu.com/global/about/environment/solutions/ esolutions/

Environmental Impact Assessment Techniques

The Fujitsu Group utilizes techniques developed by Fujitsu Laboratories Ltd to quantitatively assess from the following viewpoints how much our customers' environmental burdens have been reduced by introducing our IT solutions products (see page 10).

- Evaluating the environmental benefits of introducing IT solutions, including the benefits of increasing efficiencies such as working efficiency as well as the potential energy-saving and resource-saving benefits.
- Indicating the overall environmental benefit by evaluating from the standpoints of both the factors that increase the environmental burden and the factors that decrease it.
- We evaluate by converting the environmental burden to a CO2 emission quantity.

Case Study ① Nakano Ward

Nakano Ward in Tokyo, a local government authority with sophisticated use of IT, has introduced our 'IPKNOWLEDGE' internal information system into its ward office, and is using it to improve its working efficiency and reduce its environmental



burden. The result of a trial calculation of the reduction in the environmental burden indicated that introducing the system had led to a 45.4% decrease in CO2 emissions.

Nakano Ward submitted this initiative as a case study titled 'Case Study on the Introduction of an IT Solution into a Ward Office's Internal Communications' for a Ministry of Internal Affairs and Communications' study group's Case Studies on Reducing Environmental Burdens through ICT (Information and Communications Technology), and it was published in the study group's report in April 2007.

Comparison of CO₂ Emissions Before and After Introduction



Providing Environmental Management Solutions We provide environmental management solutions based on the

Group's extensive track record of consulting and introducing environmental solutions and its expertise built up over many years of conducting internal environmental activities.

Based on our own original assessments developed by condensing the Group's knowledge and accomplishments, we utilize the Environmental Management Framework newly developed by Group company Fujitsu Research Institute to evaluate our customers' management activities. We use the

results of this evaluation to render visible the issues that need to be addressed. We also propose ways of resolving them by adopting strategic and effective measures that utilize the Fujitsu Group's wide range of IT solutions.

Consulting for Evaluating and Improving Environmental Management

This is a consulting service that utilizes the Environmental Management Framework to comprehensively evaluate customers' environmental programs and put forward improvement proposals.

In line with the six constituent elements and approximately 100 assessments of our Environmental Management Framework, we evaluate these programs from viewpoints such as legal/regulatory and other requirements, industry standard level, economic impact on management, and degree of standardization of in-house implementation. We also consult on continuous improvement of management, based on the evaluation.

Consulting for Evaluating and Improving Environmental Conservation Activities

This is a consulting service that focuses on environmental conservation activities (one of the constituent elements of the Environmental Management Framework).

Having exhaustively identified the environmental conservation activities that a customer should undertake at each phase of its business process, we evaluate the efficiency, soundness and other aspects of its current activities and propose solutions for resolving the issues.

Environmental Business Solutions

Using the expertise cultivated within the Group's environmental activities as a reference model, we support our customers' environment-related work with 33 different IT solutions.

•Some Examples of Environmental Business Solutions

- SLIMOFFICE EX Environmental Management Information System
- PLEMIA/ECODUCE Product Chemicals Management Solution

Case Study 2 Toyota Motor C

Toyota Motor Corporation Australia

In 2005, Toyota Motor Corporation Australia (Toyota Australia) launched its Five Year Environment Plan, and in 2007 published its first annual Sustainability Report. Toyota decided, as part of this initiative, to address the promotion of Green IT in order to help it to achieve its environmental targets.

Using its own independently developed model including questions and assessments regarding sustainability and Green IT, Fujitsu Australia Ltd (FAL) conducted multiple interviews and measurements to determine what Toyota Australia's IT greenhouse gas footprint was and what solutions were needed to meet their Green IT policy and objectives. The strategy recommended a range of initiatives to help the company achieve its Green IT vision, including optimizing the infrastructure, minimizing energy usage, and implementing life-cycle management of its IT equipment. These initiatives are helping the company to render its sustained contribution to the environment visible through the establishment of key performance indicators and to implement environmental programs with its suppliers and other business partners.

The plan that FAL developed for Toyota Australia through its environmental consulting services was a package of measures to enable the company to reduce its greenhouse gas emissions by 43%. Toyota Australia accepted this plan and is already halfway through a program designed to deliver this reduction. FAL intends to go on helping its customers to reduce their environmental burden and realize a prosperous, low-carbon society.

FAL has also started working with Fujitsu Research Institute Ltd (which is launching an environmental consulting service in Japan) and Fujitsu itself to offer the best solutions in the Fujitsu Group all over the globe.



Promoting Product Recycling

Advancing collection and recycling of end-of-life IT products from the global perspective to help create a recycling-minded society.

The Concept of Producer Responsibility

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

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

Promoting Product Recycling Overseas

The Fujitsu Group constructs and operates its own recycling systems in Europe, North America (the USA and Canada) and Asia (Singapore, the Philippines, and Australia).



* The recycling service in South Africa is an effort of Fujitsu Technology Solutions

Promoting Product Recycling in Japan

As an enterprise with official designation for wide-area industrial waste disposal in Japan, Fujitsu has developed a nationwide recycling system based on Fujitsu Recycling Centers and other facilities, and engages in various kinds of contracts for accepting industrial waste for appropriate processing throughout Japan.

This system provides for rigorous traceability and security, and achieves



Wide Area Industrial Waste Disposal Certificate

a high delete resource reuse rate*. By providing this safe and secure service, we are fully discharging our Extended Producer Responsibility (EPR).

* Resource reuse rate

The ratio of the amount (by weight) of recycled parts and resources to the amount of end-of-life business IT products processed.

Fujitsu Recycling Centers throughout Japan



Achievements in Collection and Recycling End-of-Life IT Products

We recycled 8,276 tons of IT products from corporate customers in fiscal 2008, and achieved a resource reuse rate of 91.5%.

We collected more notebook computers and liquid crystal monitors from individual customers and recycled more of their materials, boosting the number of end-of-life PC units to 67,939.

Trends in resource reuse rate of end-of-life business IT Products



Promoting Recycling

Experienced workers carefully dismantle 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



Device for recognizing scrap plastic

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

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 Product Recycling Information

To process end-of-life IT products appropriately, Fujitsu develops and operates an electronic disassembly manual management system that provides, using internal web sites, Fujitsu recycling centers with both the information necessary for product recycling and disassembly manuals in an animated format. In particular, this system provides information on chemical

substances, plastic materials, and units that may retain customer data.



Electronic Disassembly Manual Management System

Customer **Recycling center** Crushing and dissolving Plastic raw materials End-of-life Crushing Plastic parts (plastics manufacturers) IT products ABS, PS, and PC and others Polystyrene Regenerated pellets Products and pallets Covers Conversion to foam **Plastic films** compact pellets PE, PP, PS... and bags Sil Foamed plastic **Mixed plastics** Blast furnace reduced shock absorbing Covers (with metal parts) (steel plants) materials Metal Compressing and compacting Steel, stainless steel, parts Metals (metal parts aluminum, copper, Sorting manufacturers) cables, hard disks Wire and cables and cases Printed circuit Materials that include Precious metal recovery (refining plants) board precious metals connectors CPUs, ICs, motherboards Crushing and reduction Glass materials (glass manufacturers) Displays LCD glass, CRT glass

Fujitsu Integrated Recycling Process

Developing a Traceability System

We developed an integrated recycling information management system and have adopted it at the Fujitsu recycling centers. This system prevents theft and illegal dumping by attaching barcodes to customers' IT 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.



Efforts to Prevent Global Warming

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

Basic Approach

We are working to reduce emissions of greenhouse gases associated with all our group business activities. These efforts include reducing emissions of CO₂ due to energy consumption and other greenhouse gases at our factories and offices and reducing emissions associated with transportation (see page 68). Furthermore, we are working to prevent global warming throughout all areas of business activity by contributing to reduced emissions of greenhouse gases by our customers, industry, and society in general by developing IT products (see page 53) that achieve energy savings and by providing IT solutions (see page 57) that have the effect of reducing environmental burden.

Low Carbon Committee Newly Established

Since preventing global warming will become an increasingly important business issue and will have a correspondingly greater effect on the way we conduct our operations, we set up a new Low Carbon Committee at the corporate level (see page 46).

The committee's remit is to make those in charge of our businesses aware of the quantities of CO₂ emissions associated with their operations and to deliberate and formulate clear policies on how our businesses should be operated in the Group as a whole with attention to global warming.

Specifically, the committee has begun discussing policies such as setting reduction targets and business evaluation indicators for each business group and budgeting for equipment investment.

Reducing Greenhouse Gas Emissions Associated with Manufacturing

In our Stage V Environmental Protection Program, we established the goals for annual CO₂ emissions from energy consumption of (1) holding emissions levels to under those of fiscal 1990 for business sites in Japan and (2) reducing emissions per unit of actual sales by 28% relative to fiscal 1990 levels by the Group as a whole, including overseas businesses, both by the end of fiscal 2010. We have implemented and are continuing to move forward with the following energy-saving measures.

- Energy-saving equipment, focusing on motive-power facilities (introduction of free cooling, inverters, energy-saving facilities, fuel conversion, etc.)
- Increased efficiencies through revised manufacturing processes, accompanied by proper motive-power facility operation and improvement of management
- Adjusting appropriate room temperature for office air conditioning, saving electricity for lighting and office automation equipment
- Promotion of the measurement and visualization of energy consumption and proactive use of that data
- Use of natural energy sources such as solar and wind power As a result of these efforts, our CO₂ emissions due to energy consumption in fiscal 2008 were 1.066 million tons in Japan. While this figure represents a year-on-year decrease of 81,000 tons, which was attributable to business realignment in response

to market changes, among other factors, it was a 3.0% increase compared to fiscal 1990.

CO₂ emissions for the entire Fujitsu Group were roughly 1.24 million tons, or 67.8% of levels in fiscal 1990 in per unit of real sales terms.

We are also participating in the Japanese Government's domestic emissions trading scheme pilot project, launched in fiscal 2008 with the aim of examining further global warming countermeasures based on a medium-to-long-term viewpoint.

Energy Consumption CO₂ Emissions (Japan Only and Group Total)

CO2 emissions (group total) ZZ CO2 emissions (Japan only)



Trends in CO₂ Emissions per Unit Sales (Group Total)

(tons/100 million yen)



* CO2 conversion coefficient for purchased electric power: Our results for fiscal 2002 and later are calculated as 0.407 tons CO2 per MWh. (We expect the coefficient to be 0.34 tons CO₂ per MWh in 2010.)

* Actual sales: Consolidated sales compensated by the Bank of Japan's corporate goods price index (electrical equipment). (Per unit value = CO₂ emissions/actual sales)



Promoting the Visibility of Individual Businesses' CO₂ Emissions (Fujitsu Oyama Factory)

When attempting to reduce energy usage in factories, it is important to address it not only from the equipment aspect but also from the process aspect in the production and other departments. To do this, Fujitsu's Oyama Factory installed meters to measure the cumulative power consumption on the primary side of the distribution panels in its main production and testing equipment (in 25% of the total) in order to make the amount



of electricity being used for production visible

Rendering the electricity consumption of the most powerhungry departments visible in this way enables us to set energy reduction targets, monitor progress, and keep our day-to-day energysaving activities invigorated.

Case Study ② Reviewing Heating Systems and Converting Equipment to Save Energy (Fujitsu Kansai Systems Laboratory)

Fujitsu Kansai Systems Laboratory kept the number of heating units down by turning its computer room into an office.

It also converted a heat storage water tank to produce chilled water for its air conditioning system at night, when electricity is cheaper. This enabled it not only to reduce its annual CO_2 emissions by 74 tons but also to save on its electricity costs.

This initiative won the laboratory a prize for effort in fiscal 2008 as one of the case studies on improvements to the operation and control of heat storage systems collected by the Heat Pump &Thermal Storage Technology Center of Japan.

Preliminary Verification of Benefits from Remodeling a Heat Storage Water Tank Using Thermal Fluid Simulation

1 hour from start of heat storage 8 hours from start of heat storage The provided in the storage water tank.

Cutting Emissions of Greenhouse Gases Other than CO₂

The semiconductor industry has established a voluntary action plan to cut the emissions of PFC, HFC and SF₆, which are all greenhouse gases.

We have set a target of reducing emissions of greenhouse gases other than CO₂ to 10% below the fiscal 1995 level by the end of fiscal 2010. Our Electronic Devices units are continuing to change over to gases with lower global warming potential as well as to install equipment to extract such gases on new manufacturing lines.

In fiscal 2008, the most up-to-date reduction technology and scrubbing devices were introduced as part of a NEDO assisted product (NEDO: the New Energy and Industrial Technology Development Organization, an incorporated administrative agency), making emissions of approximately 428,000 tons after conversion using the global warming potential index (GWP).

Although there are differences in our scale of production and manufacturing processes, this represents a 65.3% increase from fiscal 1995.

Emissions of Greenhouse Gases other than CO₂ (total for semiconductor business)



Promoting the Use of Renewable Energy

Some Fujitsu business sites have introduced renewable energy in the form of solar power, wind power, etc. Some data centers that have introduced solar power have, for example, devised ways of monitoring the contribution of renewable energy, rendering the solar radiation intensity, instantaneous power generation and cumulative power generation for the day visible on display panels.

Renewable energy is actively introduced when new data centers and other facilities are built (see page 16). We intend to go on increasing the proportion of renewable energy we use, and are considering setting targets for its introduction in the future.

We also perform carbon offsetting of the electricity we consume by using Green Power certificates* at events and exhibitions such as Fujitsu Forums and stockholders' meetings. In fiscal 2008, we purchased a total of approximately 44,000 kWh worth of these certificates.

* Green Power certificates

This is a system whereby a certificate issuer issues tradable certificates accredited by a third party (the Green Energy Certification Center) for the environmental added value of electricity generated by natural energy.

Case Study ③

Project to Improve Air Conditioning Efficiency in Data Centers (Fujitsu Shikoku Systems Limited)

Fujitsu Shikoku Systems Limited carries out regional systems integration, package development and outsourcing services. There is a data center (IDC) in the Kochi Fujitsu Technoport building that the company occupies. A through-floor air conditioning system is used in the data center's IDC Machine Room to cool machines such as host computers and servers efficiently, but the equipment was being operated with the specifications unchanged from when the facility had been constructed, with the racks'air intakes and outlets facing each other.

Starting in fiscal 2008, the company addressed this issue by optimizing the position and number of outlet grilles in the floor and intakes in the ceiling so as to adjust the airflow balance to suit the way in which the racks were populated. This increased the air conditioning efficiency and allowed the system to be run with fewer units and the operational settings to be adjusted and relaxed.

As a result, the building's total CO₂ emissions dropped by around 7% compared with fiscal 2007.

Airflow and Temperature Distribution Simulation (Cross-Sectional View Showing Machine Room from Side)



Reducing the Environmental Burden of Factories and Business Offices

Advancing eco-friendly business activities through comprehensive environmental protection activities in our factories and offices

The Thinking behind Our Activities to Reduce Environmental Burdens in Factories and Offices

The Group continually strives to reduce the quantities of materials and energy used in its operations, 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.

We are also continually trying to raise our standards by introducing systems for comprehensively evaluating these activities, rendering their level of eco-friendliness 'visible,' and extending them throughout the Group.

Applying the Green Factory and Green Office Systems

To reduce even further the environmental burden of our factories and business offices, we initiated in fiscal 2007 our Green Factory and Green Office systems, designed to comprehensively evaluate our level of eco-friendliness and autonomous initiatives and render them 'visible.'

In our Stage V Environmental Protection Program, we propose achieving a two star (\bigstar) or higher level in the Green Factory or Green Office system at every one of our relevant business sites in Japan by the end of fiscal 2009, and we continue working to achieve the certified levels and improve and heighten our eco-friendliness.

In fiscal 2008, 40 (81%) of our factories subject to the Green Factory system and 338 (77%) of our offices subject to the Green Office system achieved a two-star or higher ranking. Of these, 118 sites (two factories and 116 offices) that had promoted their own independent initiatives reached the three-star level.

Certification Levels



Using Green Process Activities to Reduce the Environmental Burden in our Manufacturing Processes

The Group promotes Green Process activities with the aim of further lightening our environmental burden by reducing energy usage in our factories, rigorously controlling chemicals, reducing waste, etc.

These activities are conducted in parallel with cost-reduction activities, and consist of initiatives such as optimizing the amount of energy and raw materials used in manufacturing processes and switching to alternatives with a lower environmental burden. In these activities, 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

An Example of a Green Pro cess Activity

Improving Final Testing in a Semiconductor Production Process (Fujitsu Integrated Microtechnology Ltd)

At Fujitsu Integrated Microtechnology Ltd's Aizu Plant (which offers LSI package assembly and testing services), the components of the testers used in the testing process, and their method of disposal, were improved as part of the factory's Green Process activities.

For example, a plated alloy was used as the material for the contact parts used in the test measurements, and the plating wore off slightly with every measurement, eventually leading to spurious results. Changing the material to a different alloy that requires no plating alleviated this problem.

It is still necessary to replace the contact parts periodically, but this used to be done by replacing the entire circuit board (with the contact parts soldered onto it) and throwing the old one away. Now, the worn-out contact parts are removed from the board, and both the board and the parts are recycled.

Measures like this have enabled the factory to purchase new parts and replace old ones far less often, and (by recycling) to greatly reduce the amount of material disposed of. In addition, costs have gone down because new parts are purchased less frequently.

As a result of a series of detailed improvements like this carried out on the testing process, both the CG value and costs have decreased by approximately 11%.



With Our Customers

original CG (Cost Green) index*. We then set quarterly reduction targets (planned values) at the production line level for each factory and evaluate the degree of attainment of these targets while rotating 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. * CG index: Cost/Green index

This index describes the product of input volume used per product, the cost, and the environmental impact (on a scale from 1 to 10).

Reducing the Amount of Waste Generated Basic Approach

In working towards creating a recycling-minded society, we have adopted a basic 3R policy (reduce, reuse and recycle) and in aiming for an even higher level of 3R achievement, we encourage all our employees to separate waste materials into different categories for more effective recycling.

Fiscal 2008 Performance

In the Stage IV Environmental Protection Program, we set the goal of reducing the amount of waste generated by our business operations by 3% compared to fiscal 2005 levels by the end of fiscal 2009.

The total amount of waste generated by the Fujitsu Group came to 29,713 tons in fiscal 2008. While the results for the previous fiscal year corresponded to a 12.5% decrease, they corresponded to a 10.4% decrease compared to fiscal 2005.

This was due not only to converting things like waste paper and waste acid into valuable resources and using the sludge from cleaning tanks as fertilizer, but also to significant market changes.



Amounts of Waste Generated*1

 *1 Statistics for eight rulics and 32 group companies.
 *2 The values for 2005 and 2006 include the values for Fujitsu Semiconductor Technology, which was consolidated starting in 2007.

*3 Values in parentheses are for the range that was reported in fiscal 2006.

Basic Policy for Chemical Substances Management Basic Approach

We have established "Prevention of environmental risks that could lead to environmental pollution or adverse health effects due to the use of harmful chemical substances" as our basic policy for chemical substances management, we manage the amounts used for about 1,200 chemicals, and we work to reduce the amount discharged and implement appropriate management at every business site.

Results for Fiscal 2008

In our Stage V Environmental Protection Program, we propose the target of reducing VOC atmospheric emissions from business sites by 30% from fiscal 2000 levels by the end of fiscal 2009.

In addition to aiming for thoroughgoing and appropriate management of the target VOC chemicals and review of our manufacturing processes, in fiscal 2008 we also implemented reduction measures such as installing organic solvent collection units in semiconductor plants. As a result of these efforts, the total VOC atmospheric emissions for the whole group in fiscal 2008 was 340 tons, which corresponds to a 28% reduction from fiscal 2000 levels.

Although we have not set targets for target PRTR substances, we are managing the amounts handled and the amounts emitted.

VOC Atmospheric Emissions



* Because the Electronic Device Division became a Group company, a change in the proportion has arisen in fiscal 2008

Operation of the Chemicals Control System

The Fujitsu Group operates the Chemicals Control System. Because this can be used not only to register and monitor chemicals at every site but also to manage Materials Safety Data Sheets (MSDS) and control income and expenditure in conjunction with purchasing data and inventory control, it is helping the Group to strengthen its chemicals control and make it more efficient.

Reducing the Environmental Burden of Factories and Business Offices

Overview of Chemicals Control System



Comprehensively Assessing Risk

The Group has until now carried out periodic disaster-prevention inspections of the buildings, facilities and environmental equipment at all of its sites, using teams of facility specialists and environmental experts, to prevent the emergence of risks due to deterioration or natural disasters such as earthquakes, typhoons and heavy rainfall.

However, because of the current importance of ensuring operational continuity, the Group has recently commenced new third-party verification programs, adding teams specialized in operational continuity, safety/hygiene and risk finance to address potential risks from all possible aspects, not just from the conventional approaches for facilities and the environment. We intend to continue these activities with the aim of further lowering the risks associated with our buildings and equipment.

Responding to Soil and Groundwater Pollution

We have reviewed our internal rules established in fiscal 2006 in response to soil and groundwater problems and will handle such problems based on these revised rules for soil and groundwater surveys, policies, and disclosure.

In the future, at the same time as performing planned surveys and, if pollution is discovered, implementing cleanup operations and countermeasures appropriate for the conditions at each business site, we will also disclose relevant information in collaboration with government authorities.

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

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

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

Status of New Soil and Groundwater Pollution Measures Undertaken in Fiscal 2008

In fiscal 2008, as a result of a voluntary survey we performed, we found soil and groundwater contamination at two business sites. For both of these, we reported the state of the contamination and explained the countermeasures we would take to the relevant authorities and the local citizens.

Sites Continuing to Undertake Cleanup Operations and Institute Countermeasures in FY 2008 Stemming from Past Business Activities

We have dug wells to monitor the influence outside our sites of contamination due to groundwater at business sites where soil or groundwater contamination has been found. We continuously monitor those wells. In fiscal 2008, these measures were continued at five sites.

The table below lists the largest of the most recent measurements for chemicals whose measurements are recognized to have exceeded legal limits in fiscal 2008 stemming from past business activities.

Site		Cleanup and	Monitoring well maximum value (mg/ℓ)		Regulation	
Name	LOCATION	status	Substance	Measured value	value (mg/ℓ)	
Sites Wh	ere Groun	dwater Pollution Was Co	nfirmed before FY 2	8008		
Kawasaki	Kawasaki, Kanagawa Prefecture	We are continuing to cleanup VOCs by pumping and aeration.	1, 1-dichloroethylene	0.024	0.02	
piant			Cis-1, 2- dichloroethylene	7.4	0.04	
Suzaka plant	Suzaka City, Nagano Prefecture	We are excavating and removing contaminated soil	PCB	0.0006*	Must not be detected.	
Oyama plant	Oyama City, Tochigi Prefecture	We are continuing to cleanup VOCs by pumping and aeration and other methods.	Cis-1, 2- dichloroethylene	3.589	0.04	
			Trichloroethylene	0.485	0.03	
Nagano plant	Nagano City, Nagano Prefecture	We are continuing to cleanup VOCs by pumping and aeration	Cis-1, 2- dichloroethylene	0.24	0.04	
Shinetsu Fujitsu	Shinano machi, Kamiminochi	We are continuing to cleanup VOCs by pumping	Cis-1, 2- dichloroethylene	0.18	0.04	
	Prefecture	and aeration.	Trichloroethylene	0.067	0.03	
Sites Wh	ere Groun	dwater Pollution Was Ne	wly Confirmed in F	/ 2008		
Fujitsu Optical	Tochigi Prefecture	Continuing VOC cleanup operations by means of	Cis-1, 2- dichloroethylene	0.68	0.04	
nents	Oyama	pumping and aeration	Trichloroethylene	0.340	0.03	
Sites that	Sites that Have Completed Cleanup Operations and Continue to Monitor Groundwater					
Old Minami- Tama Factory	Tokyo Inagi	Cleanup using the in-situ iron filings admixture method (iron filings injection) has been completed The groundwater is now being monitored	Cis-1, 2- dichloroethylene	Below threshold	0.04	
			Tetrachloroethylene	Below threshold	0.01	

* Was detected in April 2008, but has not subsequently exceeded limit

Reducing the Environmental Burden in Offices

The Fujitsu Group also promotes environmental activities in its administrative offices, saving energy, working toward zero waste emissions and contributing to society and, of course, ensuring legal compliance. In fiscal 2007, we began operating our Green Office System, with the aim of instilling even more vigor into these activities and raising them to even higher levels. Under this system, the level each office has achieved in its environmental activities is evaluated and awarded one-to-three stars. Our target is to have all of the offices that come under this system achieve at least a two-star ranking by the end of fiscal 2009 (see page 63).

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

On-Site Waste Disposal Auditing

One of the most important pieces of environment-related legislation applying to all offices in Japan is the 'Law on Waste Disposal and Cleaning.'

To confirm that IT equipment and other types of industrial waste are being properly dealt with, we operate a system we have formed to perform standardized Group-level checks of the periodic on-site audits carried out at the Fujitsu Recycling Centers that have selected to dispose of in-house IT equipment. Specifically, a member of the Fujitsu Group Environmental

Division visits the recycling center 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.



An On-Site Waste Disposal Audit in Progress

Creating a Database of Environmental Activity Measures, and Utilizing Checklists

By operating the Green Office system, we survey energy-saving, waste reduction and paper reduction measures and build them into a database, which we then use to make checklists.

These checklists are proving useful not only as materials for considering the measures to adopt when our offices set their environmental objectives and targets but also for invigorating and improving the activities by making it possible to 'see' operational improvement issues and measures that require investment.

Conducting a Field Survey in Response to the Revised Energy Conservation Law

The promulgation of the revised Energy Conservation Law in Japan on 30th May 2008 made it necessary for administrative

offices, like other sites, to identify their energy usage.

In order to respond readily to this requirement, we used the operation of the Green Office system to investigate and identify matters such as the theoretical and actual value of the electricity allocation (apportioning) method and the positioning of meters in all the relevant offices.

A Green Office Example Constructing the First Nationwide Paper Recycling System in Japan

Although the Fujitsu Group has always worked hard to recycle as much waste paper as possible, a new fact-finding survey of the relevant offices based on the Green Office system revealed that approximately 20% of confidential documents and 30% of general waste paper was not being recycled, and that our regional offices and branch offices were using various different methods of recovering and disposing of paper waste. In order to resolve these issues and achieve zero emissions of waste paper in our offices, the Group began to construct and operate Japan's first nationwide paper recycling system.

Under this system, paper waste recovery and recycling companies were integrated region by region, and Fujitsu established its own original system for recovering and recycling confidential documents, rigorously enforcing its own domestic standards for such documents (rules specifying recovery frequency, processing methods, preservation of confidentiality, etc.) to ensure both a high recycling rate and high security. We also greatly increased the recovery and recycling rates for general waste paper.

During fiscal 2009, we plan to extend the application of this system to 79 Fujitsu sites and to 276 sites and ten neighboring factories of 53 Fujitsu Group companies in Japan. We intend to use this initiative not only to reduce our environmental burden but also to decrease our transportation, processing and other costs and lower our security risks.

Internet Press Release: Japan's First Nationwide Paper Recycling System Constructed http://www.fujitsu.com/global/news/pr/archives/ month/2009/20090317-01.html

Flowchart of Paper Recycling System



Green Procurement

In cooperation with our business partners, we promote green procurement

-from parts and materials for manufacturing through software and services

-to provide our customers with products and services with superior environmental efficiency.

Our Approach to Green Procurement

In our procurement activity, we give priority to purchasing parts, materials, and products that are eco-friendly. We stipulate our basic requirements for green procurement in the Fujitsu Group Green Procurement Direction and promote green procurement activities together with our business partners.

Fujitsu Group Green Procurement Direction

http://www.fujitsu.com/global/about/procurement/green/

EMS Construction for Green Procurement



* FJEMS

Fujitsu Group Environmental Management System. The Fujitsu Group's original EMS.

Green Procurement Activities

The Fujitsu Group is engaged in the following two proactive efforts as green procurement activities in the Environmental Protection Program (Stage V).

Improving Our Business Partners' Environmental Management Systems (EMS)

In the Environmental Protection Program (Stage V), we are aiming at raising the level of our business partners' EMS.

In order to further promote our business partners' environmental burden reduction activities, we use EMS Upgrade Meetings and other events to urge them to raise their EMS standards by acquiring third-party certification and constructing an FJEMS. We have set 'Raising the EMSs operated by our materials suppliers to Level II or above' as a specific target, and this had been 92.9% achieved by fiscal 2008.

Construction of Business Partners' Chemical Substances Management System (CMS)

In the Environmental Protection Program (Stage V), we target the construction of chemical substances management systems (CMS*1) by our business partners. To achieve appropriate management of chemical substances throughout the whole supply chain, we request and support the construction of CMS based on the Guideline for the Management of Chemical Substance in Products issued by JGPSSI*2, and promote strengthened management of chemical substances with a strong emphasis on source management.

Specifically, we audit the status of CMS construction at our materials suppliers, and help them when their management systems are found to be inadequate. By fiscal 2008, the proportion of suppliers with a properly-constructed CMS had risen to 97.6%.

In the future, we will continue to stress the importance of supplier source management through briefing sessions and periodic audits, and aim at raising the level of chemical substances management in the whole supply chain. *1 CMS

Chemical Substances Management System *2 JGPSSI

Japan Green Procurement Survey Standardization Initiative

Promotion of Green Policy Innovation by Strengthening Green Procurement Activities

In order to implement the Green Policy Innovation initiative (reducing our customers' environmental burdens through the provision of Green IT) announced in December 2007, we started a program that solicits proposals from our business partners for excellent environmental technologies and materials, and, having considered and evaluated them, we propose their adoption in a timely, inter-departmental way to our Design and Development Division.

In fiscal 2008, we set up systems for soliciting proposals and evaluating them internally, and constructed a proposals database. Some of the proposals we have received from our business partners have already been evaluated in detail with a view to adopting them in the next round of products to be developed. We intend to go on developing products with outstanding environmental functionality by actively adopting excellent environmental technologies and materials.

Infrastructure for Achieving Green Policy Innovation



Environmental Considerations in Distribution

We promote the efficiency and rationalization in distribution which keeps the whole supply chain in view and striving to reduce the environmental load.

Reduction of Distribution-Associated CO₂ Emissions

We promote 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 partnerships with our business partners and strive to reduce the environmental burden associated with distribution across the whole supply chain.

In fiscal 2008, Fujitsu set itself the target of 'reducing CO₂ emissions from transportation by 27% compared with fiscal 2000,' and, as a result of measures such as expanding modal shifts and reducing the number of trucks used, we were able to achieve this target. If we take into account the effect of changes in quantities of materials, we actually achieved a reduction of 38% compared with fiscal 2000. We will now proceed to take action with the aim of 'reducing these emissions by 40% compared with fiscal 2000' by the end of fiscal 2010.

Trends in CO₂ Emissions from Transportation (Fujitsu)



* Including Fujitsu Microelectronics Ltd

Expanding the Application of Modal Shifts

Fujitsu is working to reduce its CO₂ emissions through modal shifts, promoting the effective utilization of railroad and sea transportation and reducing the proportion of air transportation.

In fiscal 2008, in addition to further advancing the modal shifts of PCs and mobile phones, we started modal shifting of purchased materials and server products for the first time.

PCs

In fiscal 2008, we expanded the modal shift ratio from Fujitsu Isotec by approximately 15% compared with fiscal 2007. Thanks to this, our FMV-ESPRIMO enterprise desktop PC and our PRIMENERGY PC server were both accredited as Eco Rail Mark

Products under the scheme established by the Ministry of Land, Infrastructure, Transport and Tourism in conjunction with the Railway Freight Association. This was the first time that any PC or PC server had received this accreditation.



Mobile Phones

We have implemented various intiatives regarding to start the transportation from Fujitsu Peripherals Limited for mobile phones.

Servers

Since July 2008, we have stopped shipping some of our server products from Fujitsu IT Products destined for North America to Tokyo Bay by truck, and are now sending them by rail in 31-foot containers.

Purchased Materials

In March 2009, we switched some of our shipments of imported materials transported from Tokyo Bay to Fujitsu Frontec Limited and Fujitsu IT Products Limited from truck to rail freight, using 20-foot sea-going containers.

Promoting the Green Logistics Partnership Project Business Model

In FY 2006, Fujitsu implemented a project to reduce CO₂ through intensive vehicle-allocation control integrated from parts procurement through to product delivery (accredited as a model business under the Green Logistics Partnership Project*). This was initially mainly in the Tokyo area but we now intend to extend this project well beyond greater Tokyo.

* Green Logistics Partnership Project

This is a project in which a cargo owner and a distribution company join forces to reduce CO₂ emissions in distribution, as determined by the Green Logistics Partnership Council (organized by the Japan Institute of Logistics Systems, the Japan Federation of Freight Industries, the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism, with the help of Japan Federation of Economic Organizations).

Reducing the Number of Trucks

Fujitsu has improved freight loading by reviewing domestic product delivery routes, increasing mixed loading of cargo between Group companies and increasing the number of stacking layers per pallet.

Reduction of Environmental Burden Associated with Distribution

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

Reducing Stretch Film Usage

Stretch film is used to wrap maintenance parts in order to prevent the cargo from collapsing during transportation. By changing to an alternative, reusable material, we were able to greatly reduce the amount of film we use and discard.



Using an Alternative Type of Stretch

Environmental Contributions to Society

We vigorously promote activities that make environmental contributions to society and foster mutually beneficial relationships in our communities worldwide.

Our Basic Approach

All employees of the Fujitsu Group recognize the importance of the global environment and, to assure that the next generation inherits a beautiful planet-wide environment, they contribute to their local community through activities that make environmental contributions to society based on the following three pillars: regional contributions, nature conservation, and environmental education. For details of our other activities that contribute to society, see page 39-42.

Regional Contributions

The Group implements programs that contribute to society and the environment as a site-based activity within our Environmental Management Systems (EMS) at branch offices, factories and other facilities throughout Japan.

We carry out associated programs of cleaning, planting vegetation and so on, with the aim of providing the local people with a pleasant environment.

Cleaning and Flower-Planting (Fujitsu Makuhari Systems Laboratory)

Since 2003, Fujitsu's Makuhari Systems Laboratory has joined with neighboring businesses to plant flowers and clean up the surrounding areas.

In 2008, Fujitsu Group employees did cleaning work on two occasions and flower-planting on four, with a cumulative attendance of 262.

Nature Conservation

The Fujitsu Group carries out tree-planting and forest conservation programs with the objective of protecting natural abundance and regenerating the natural environment.

Overseas, we have carried out tree-planting programs in Thailand and Vietnam, and are continuing to implement a treeplanting program in Malaysia for regenerating tropical rainforest. We also engage in activities in Japan that help to conserve biodiversity, such as forest regeneration work in company forests and other locations in Kochi Prefecture, Wakayama Prefecture and around the base of Mt. Aso.

Helping to Conserve Tokyo's Satoyama and Woodlands and other Natural Areas

In the Tokyo Greenship Action campaign, companies work with NPOs and local citizens to conserve designated conservation areas such as Satoyama (urban woodlands) and natural hilly areas in Tokyo. Fujitsu has participated in this campaign since 2005.

A cumulative total of 62 Fujitsu Group employees and their family members attended three conservation exercises during fiscal 2008: tree-thinning at Hachioji's Ooya Green Conservation Area in June 2008, rice harvesting and mowing at Yokosawairi Satoyama Woodland Conservation Area in October 2008, and tree-thinning and preparing 'hodagi' (natural logs for growing shiitake mushrooms) at Tobuki Kita Green Conservation Area in Hachioji in March 2009. The participants commented; "I'm more aware of what's going on now, knowing that NPOs, government

and businesses are working together to conserve these natural areas in and around our cities," and; "It was great to see children playing around, getting all muddy, and having a good time getting in touch with nature."



Tree-thinning at Tobuki Kita in Hachioji

Regenerating Tropical Rainforests in Borneo, Malaysia

Fujitsu is working, from the standpoint of protecting biodiversity, for the revitalization of the tropical rainforest in Borneo, Malaysia, Southeast Asia, which is said to be one of the world's three largest tropical rainforests.

Since 2002, Fujitsu employees, as volunteers, have been reforesting the 150 hectares of the Fujitsu Group Malaysia Eco-Forest Park with the support of the Sabah State Forestry Development Authority and the Japan International Forestry Promotion and Cooperation Center. So far, we have planted 37,500 dipterocarpaceae (a tree indigenous to tropical rainforests) in a 150-ha area colonized by Acacia mangium.

In fiscal 2008, in addition to planting more dipterocarpaceae seedlings, we girdled (cutting off rings of bark to make the trees dry out and die) Acacia mangium trees growing around the seedlings we had previously planted, in order to encourage the seedlings' growth by allowing them more sunlight.

We now intend to start periodically surveying the wildlife in the area in order to assess the degree of biodiversity in these tropical rainforests as they regenerate.

Environmental Education Activities

The Fujitsu Group holds environmental seminars, and visits schools to give lessons, in order to make local adults and children aware of the importance of the environment.

In fiscal 2008, we gave lessons in some 54 schools and other facilities, for around 3,000 people, in which we presented the 'PC 3R' exercise (in which students learn about 3R while dismantling a PC), the 'Importance of Nature' lesson, which introduces students to the importance of conserving the natural environment, focusing on the function of forests, and the 'My Earth' card game (in which students study global environmental

problems). Also, to respond to the demand for more of these lessons, we held an instructor development course in August 2008 in which a further 23 Fujitsu Group employees learned how to deliver the lessons.



Environmental lesson using the 'My Earth' card game at Musashino Higashi Gakuen School