Environmental Communication

The Fujitsu Group is committed to two-way communication with all stakeholders and pursues a variety of different opportunities to this end.

Information Disclosure via Sustainability Reports and the Fujitsu Website

In 1996, the Fujitsu Group began publishing an Environmental Report, focusing on the records and results of environmental protection activities carried out by the Group. The report reflects Fujitsu's commitment to making such information publicly available, thereby increasing the transparency of the Group's activities. In 2003, social aspects were combined with the Environmental Report for the publication since then of the Fujitsu Group Sustainability Report. The Environment page of the Fujitsu website, meanwhile, contains the contents of the Sustainability Report, as well as specific details of individual initiatives, and is frequently updated with the latest information.

- Fujitsu Group Sustainability Report

Site Report Publication

Fujitsu production plants, business sites and Group companies publish environmental reports, so that local residents and customers can better understand our environmental initiatives.

Events & Seminars

Main Conventions in which Fujitsu Participated in FY 2012

Convention	Location	Date
Japan		
Kawasaki International Eco-Tech Fair 2013	Kawasaki	February 2013
Eco Products 2012	Tokyo	December 2012
Carbon Offset Matching in Kochi	Kochi	November 2012
Ishikawa "Yume" Mirai Haku (Ishikawa "Yume" Future Exposition) 2012	Kanazawa	November 2012
CEATEC	Chiba	October 2012
Eco-Life Yamagata 2012	Yamagata	October 2012
Fujitsu Ladies 2012	Chiba	October 2012
Overseas		
ASEAN Fujitsu Day 2012	Kuala Lumpur, Malaysia	October 2012
ITU Green Standards Week	Paris, France	September 2012
Rio+20 Japan Pavilion	Rio de Janeiro, Brazil	June 2012

ITU Green Standards Week (Paris)

Eco-Products 2012 (Tokyo)

Environmental Efforts at Events and Seminars

At exhibition events such as the Fujitsu Forum, at the annual meeting of shareholders, and at other seminars and events, Fujitsu uses green electricity to reduce our CO_2 emissions. Our environmental efforts at such venues take various forms including reducing the amount of paper used and utilizing eco-friendly materials.

In FY 2012, Fujitsu purchased a Green Power Certificate for a total of approximately 39,000kWh of electricity.

Environmental Efforts in Catalog Printing

When printing catalogs, Fujitsu utilizes environmentally friendly materials, including certified eco-friendly paper and ink, and ecologically sound printing methods. These efforts help reduce CO_2 emissions as well as harmful liquid waste and other printing byproducts.

Communicating with Stakeholders

The Fujitsu Group works to establish proactive communications, as a way of working better together with its stakeholders.

Environmental Dialogues with Stakeholders

Fujitsu conducts environmental dialogues with a broad range of stakeholders as a way to promote better environmental management, build trust, and engage in creative activity together with society.

FY 2012 Dialogues

In FY 2012, we held a total of seven dialogues to which we invited a total of 15 experts. The first two dialogues of FY 2012 continued the theme of the March 2012 dialogue. In these two sessions, participants discussed Fujitsu's environmental management accomplishments and results, and communication with society. Beginning with the third dialogue, we sought to address particular themes based on discussions in previous dialogues and to further deepen mutual understanding.

1st Dialogue : held on April 17, 2012

[Participants]

- Miyako Maekita
  Representative of Sustena

- Yasunari Matsuno
  Associate Professor, Department of Materials Engineering, Graduate school of Engineering, The University of Tokyo

- Kana Yamashita
  Deputy Director, Director, Climate Security Program, Conservation International Japan

- Junko Edahiro (Facilitator)
  President, Institute for Studies in Happiness, Economy, and Society

2nd Dialogue: held on June 28, 2012

[Participants]

- Toshihiko Goto
  Chair, Environmental Accounting Research Group

- Seita Emori
  Chief, Climate Risk Assessment Section, Center for Global Environmental Research, National Institute for Environmental Studies

- Rie Asaba
  Chairman of the Board of Directors, NPO Kawaguchi Citizens Environmental Council

- Junko Edahiro (Facilitator)
  President, Institute for Studies in Happiness, Economy, and Society

[1st and 2nd Dialogues]

The participants expressed the views that Fujitsu is playing a leading role in pursuing biodiversity conservation activities that include suppliers, and that our environmental activities are at the forefront of such initiatives. They also pointed out, however, that the results of our activities have yet to be fully publicly recognized . This reminded us that strengthening communication with society is an issue we must address. Turning to initiatives pursued through main business activities, the participants expressed the view that, from the perspective of social contributions, corporate environmental activities can be quite transient, and that Fujitsu's major strength is that it can contribute to the environment through its main business of providing solutions.

- Dialogue in FY 2011

3rd Dialogue: held on December 18, 2012
Theme: Measures for Preventing Global Warming, Forest Conservation Activities

[Participants]

- Atsuko Suzuki
  Representative Director, Environmental Business Agency

- Yasunari Matsuno
  Associate Professor, Department of Materials Engineering, Graduate School of Engineering, The University of Tokyo

- Kana Yamashita
  Deputy Director, Director, Climate Security Program, Conservation International Japan

- Junko Edahiro (Facilitator)
  President, Institute for Studies in Happiness, Economy, and Society

[Opinions]

- Issues related to how to cut CO2 and save electricity in the daily lives of individuals is exactly where ICT should come into play. (Suzuki)

- For forest conservation, the extent to which a large number of people can be involved is key. Activities should be established, so that projects can continue even without corporate involvement. (Suzuki)

- Fujitsu has lots of good ICT solutions, for example the use of smart grids to promote the saving of electricity. Instead of attacking global warming directly, what about approaching it indirectly from the perspectives of saving energy and electricity? (Matsuno)

- Fujitsu shouldn't be protecting forests itself; it should be doing things like creating databases and supporting conservation activities indirectly. In other words, unless it uses its main business activity of ICT to engage in business, benefits to conservation won't continue. (Matsuno)

- The decline of forests accounts for 1/5 of annual greenhouse gas emissions, and has a great impact on the protection of biodiversity and water resources. By all means, I would like Fujitsu, as a global ICT business, to consider what it can contribute going forward. (Yamashita)

- Climate change must be dealt with as a common issue for humanity. I believe that ICT solutions are critical as a sector in which companies can powerfully show government what is possible. (Yamashita)

4th Dialogue: held on February 15, 2013
Theme: Energy

[Participants]

- Seita Emori
  Chief, Climate Risk Assessment Section, Center for Global Environmental Research, National Institute for Environmental Studies

- Yosuke Ikehara
  Climate & Energy Project Leader, Conservation Division, WWF Japan

- Junko Edahiro (Facilitator)
  President, Institute for Studies in Happiness, Economy, and Society

[Opinions]

- On the 2℃ objective for global warming measures, there needs to be more discussion in society of things that should be avoided because of their impacts. Actually, we also need more opportunities for discussion. (Emori)

- If we look back on the past when thinking about the things that brought about change for the global environment, we can see that the industrial structure changed because the industrial revolution was "innovation." Changing society with ideas is difficult, but society can change with innovation Fujitsu brings about through technology. (Emori)

- It is technologically and economically feasible to meet all of the world's energy demand with renewable energy by the year 2050. The WWF's scenarios show that is possible. (Ikehara)

- I want Fujitsu to have a vision of itself in the year 2050 and beyond ‐ what it wants to become ‐ and to paint a picture of how it will use ICT in society. (Ikehara)

5th Dialogue: held on March 5, 2013
Theme: Environmental communication

[Participants]

- Miyako Maekita
  Representative of Sustena

- Rie Asaba
  Chairman of the Board of Directors, NPO Kawaguchi Citizens Environmental Council

- Takeshi Mizuguchi
  Professor, Faculty of Economics, Takasaki City University of Economics

- Junko Edahiro (Facilitator)
  President, Institute for Studies in Happiness, Economy, and Society

[Opinions]

- About letting people know about the environmental contributions of ICT, my impression is that there are many aspects that are not visible, so people won't get it if you don't change the way they are expressed. What Fujitsu is doing is wonderful, but may be it should consider that it is pursuing a kind of rigor that is beyond ordinary people, so it doesn't get communicated. (Maekita)

- It doesn't come through in press releases, but I think the message would be communicated if you talk about how difficult conditions are for people on the ground. (Maekita)

- Maybe it would be good if Fujitsu approaches this from the perspective of how ICT would make daily life more convenient; how communities could change for the better; things in which ordinary people would be interested. (Asaba)

- Showing concrete examples from residents' daily lives - examples in which people's voices can be heard and their faces can be seen – would communicate Fujitsu's activities. What I mean is the background of a product's development, little known facts, and other kinds of communications, by employees, that have a story to them. (Asaba)

- We were talking about how to communicate what exists now, but isn't the question of how social issues have been solved more important? (Mizuguchi)

6th Dialogue: held on March 8, 2013
Theme: Smart cities, resources

[Participants]

- Tsuyoshi Fujita
  National Institute for Environmental Studies, Director of Eco-City System Research Program, Alliance Professor, Nagoya University. Visiting Professor, United Nation University. National Eco-Future City Promotion Board Member, National Minister Cabinet Administration Office

- Shinsuke Murakami
  Associate Professor, Department of Systems Innovation, Graduate School of Engineering, The University of Tokyo

- Masatsugu Taniguchi
  Journalist, Strategy Design Institute Resources and Environment

- Junko Edahiro (Facilitator)
  President, Institute for Studies in Happiness, Economy, and Society

[Opinions]

- If recommendations cover not just private-sector technology but instead smart cities on which the private and public sector will collaborate, and a scheme for a smart resource cycle, that will make for a growth strategy. (Fujita)

- It is also important to have an approach in which companies put forth bold visions of the future, draw a roadmap to get there, and include the need for their technology. Companies describing visions of the future, and communicating and promoting them to the government and society, will lead to new strengths and competitiveness for Japan. (Fujita)

- People say that the lack of success is due to low awareness of the recycling system, but there are lots of people who don't use the recycling systems for products like cell phones, even though they know about them, so wouldn't it be good to think about other ways to publicize these systems. If they know why products are being collected, people may change their behavior. (Murakami)

- In Japan, huge amounts of money are required for processing wastewater from mines even after the mines had been closed. The mining of resources entails a large environmental burden, but it is necessary. There needs to be a broad discussion of sustainable resource usage, including everything from mining to recycling and waste processing, but it isn't really taking place. (Murakami)

- Sustainability must be interpreted to mean not sacrificing the needs of future generations to satisfy the needs of the current generation. Recycling leads to the saving of resources for future generations and is a high-value activity for companies. (Taniguchi)

- For example, something like a tax system that will change society by attaching a monetary cost to the use of precious resources is needed. (Taniguchi)

7th Dialogue: held on March 22, 2013
Theme: Vision of the Future

[Participants]

- Shinichi Takemura
  Anthropologist, environmental thinker; Professor, Kyoto University of Art & Design; Founder of the Earth Literacy Program
- Nao Suzuki
  Publisher of greenz.jp; Director, NPO Greenz
- Yoshihiro Fujii
  Professor, Sophia University Graduate School of Global Environmental Studies

[Opinions]

- I want Fujitsu to develop for the world ICT solutions that promote human development – that release the hidden potential of humans - not things that become a human substitute. (Takemura)
- A CSV(Creating Shared Value) vision like one that creates opportunities that use ICT to increase human value means new opportunities for Japanese companies. (Takemura)
- We are entering an era in which individuals work to change their surroundings to create the society they want, and this could be called a society in which the potential of individuals is unlocked. It would seem there are possibilities for putting forth services and ICT that bring people together.(Suzuki)
- There are cases in which ICT becomes the objective, but ICT is not the goal; it must be used to solve social issues. (Suzuki)
- It is not just finances and assets that are being used to evaluate companies; environmental and social factors are taking on greater and greater importance, and it is becoming difficult for investors to assess the value of a company simply by looking at its balance sheet. (Fujii)
- Fujitsu already has a wealth of resources and technologies, so I'm interested in how they will use them to respond to society's expectations and relate to society going forward. It needs to take some degree of risk and move forward with social contributions and business activities. (Fujii)

5th Dialogue

6th Dialogue

We will use the opinions expressed in dialogues to enhance and strengthen the Fujitsu Group's environmental management. We will continue with our efforts to help realize a sustainable society and will continue to value communication with all members of society.

Cooperation with External Organizations

The Fujitsu Group works to reinforce environmental management through cooperation with external organizations.

Collaborating with External Groups to Promote Green ICT

The Fujitsu Group is committed to reducing environmental impact on a global scale by promoting widespread use of Green ICT through proactive initiatives with external organizations, including international standardization bodies.

For example, methods for measuring positive environmental impact produced by Fujitsu Group solutions had not been standardized internationally. So Fujitsu took part in the ICT and Climate Change Group (SG5 WP3) of the International Telecommunication Union Telecommunication Standardization Sector (ITU-T), an international standardization body in the electrical and electronics sector. The group's findings were announced in March 2012 as the "Methodology for the Assessment of the Environmental Impact of Information and Communication Technology Goods, Networks and Services (L.1410)."*1 At the national and regional level as well, we serve as chair of the Green IT Promotion Council's (now known as the JEITA Green IT Committee) Committee of Survey and Analysis in Japan, leading the establishment of more practical methods for assessing environmental impact, and contributed to the establishment of a method for evaluating the contributions of products and services under the Action Plan of the Industries of Electrical and Electronics on a Low Carbon Society, implementation of which begins in FY 2013. We have also participated in the Global Taskforce on Harmonizing Global Metrics for Data Center Energy Efficiency and in the ISO/IEC JTC1 SC39 (Sustainability for and by Information Technology) standardization committee, and acted as an industry representative leading the development and promotion of measurement and calculation methods for power usage effectiveness (PUE), a datacenter energy efficiency index, at the JDCC (Japan Data Center Council). These initiatives have made it possible for CO2 reductions produced by ICT to be assessed under an international framework, which is expected to promote further utilization of the technologies.

Fujitsu has also made significant contributions to the development of other international environmental evaluation methodologies and indices. One is the ICT Sector Guidance to the GHG Protocol Product Life Cycle Accounting and Reporting Standard, for which Fujitsu serves as a Steering Committee member. Fujitsu is also heavily involved with The Green Grid – a non-profit organization that works to improve the resource efficiency of ICT devices and define environmental metrics, such as PUE*2 for datacenters throughout the world. Fujitsu became this organization's first Contributor Member*3 from Japan in 2008 and, in FY 2012, served as the EMEA Technical Work Group Vice-Chair.

Further, the Fujitsu Group joins in activities to evaluate the sustainability of our products using internationally recognized methods. For example, the IEC TC 111 committee creates environmental standards for electrical and electronics products, and we are actively involved in the Japanese committee of its Working Group 4, which drafts international standards for calculating greenhouse gas emissions. In addition, for the IEC TC 100 committee, which is responsible for international standards for audio, video and multimedia systems and equipment, Fujitsu serves as technical secretary for TA 13, which is in charge of environmental regulations, and chair of the Japanese committee.

*1:
Ministry of Internal Affairs and Communications of Japan press release (in Japanese)

*2 PUE (Power Usage Effectiveness) :
PUE (Power Usage Effectiveness) is an index of datacenter energy efficiency. PUE is calculated as total datacenter electricity consumption, divided by electricity consumed by ICT devices inside the datacenter.

*3 Contributor Member:
A Contributor Member participates on the Technical Committee, reviews technical documents at each stage of development, and helps to determine the organization's future direction.

External Organizations

Green ICT

Promoting and disseminating Green ICT and standardization activities

- JEITA Green IT Committee [In Japanese]
- The Green Grid
- Japan Data Center Council
- ISO/IEC JTC1 SC39 (Sustainability for and by Information Technology) Japan committee and task force
- ISO TC286 SC1(Smart Urban Infrastructure Metrics) Japan committee and Steering Committee

Climate Change

Working on initiativesto achieve a sustainable low carbon society

- Japan Climate Leaders' Partnership (Japan-CLP)
- ITU and Climate Change, the climate change group of the International Telecommunication Union Telecommunication Standardization Sector (ITU-T)
- International Electrotechnical Commission (IEC)
- Greenhouse Gas Protocol (GHG Protocol)

Biodiversity

Promoting the conservation of biodiversity by corporations

- Business and Biodiversity Initiative
- Japan Business Initiative for Conservation and Sustainable Use of Biodiversity (JBIB)

Product Chemicals and Eco Design

Investigating frameworks to effectively communicate information on chemical substances contained

- The Japan Article Management Promotion Committee (JAMP)
- The Japan Green Procurement Survey Standardization Initiative (JGPSSI)
- Japan Environmental Management Association for Industry (JEMAI)

Environmental and Social Contribution

Promote environmental and social contribution activities

- WWF (World Wide Fund for Nature) Japan
- Nature Conservation Society of Japan (NACS-J)
- Wild Bird Society of Japan
- Japan International Forestry Promotion and Cooperation Center (JIFPRO)

Environmental Communication

Promote environmental communication

- Nippon Environment Club
- Japan for Sustainability (JFS)

Environmental Activities

- Communications and Information Network Association of Japan
- Japan Electronics and Information Technology Industries Association (JEITA)
- KEIDANREN (Japan Business Federation)

List of External Awards and External Evaluations

The Fujitsu Group's various initiatives for developing a sustainable society have been highly praised by external observers.

(As of March 2013)

Major External Awards and Evaluations Received by the Fujitsu Group

Recognition	Date	Sponsor(s)	Initiative
Low CO2 Kawasaki Pilot Brand '12	February 2013	Kawasaki City, Kanagawa Prefecture	Entry-level disk array ETERNUS DX60 S2, DX80 S2, DX90 S2
Award for outstanding energy management at the 2012 Ishikawa Energy-Saving Promotion Convention	February 2013	Ishikawa Prefecture Electricity Usage Rationalization Committee	Electricity conservation activities at PFU TechnoWise Limited
Ranked 4th in the 16th Nikkei Environmental Management Survey	January 2013	Nikkei Inc.	Environmental management initiatives
Environmental Award at the Business and Industry Awards	January 2013	Richardson Chamber of Commerce	Sustainability initiatives at Fujitsu Network Communications
Chairperson's Award, Eco-Products Awards Steering Committee in the Eco-Services Category at the 9th Eco-Products Awards	November 2012	Eco-Products Awards Steering Committee	Fujitsu Global Cloud Platform FGCP/S5
Green-IT Awards 2012 Commerce and Information Policy Bureau Director-General Award in the category of "Savings in Society's Energy Consumption by IT"	October 2012	Green IT Promotion Council	Fujitsu Global Cloud Platform FGCP/S5
Named to the Carbon Performance Leadership Index (CPLI) and Carbon Disclosure Leadership Index (CDLI)	October 2012	Carbon Disclosure Project	Activities that reduce greenhouse gas emissions, lower climate change risk, and disclose climate change information
Ranked 17th in Newsweek Green Rankings 2012	October 2012	Newsweek	For consideration of corporate environmental impact, environmental management and information disclosure policies
"Best of Show Award" Special Award (Frontier Challenge Category)	June 2012	Interop Tokyo 2012	Geothermal heat extraction system
21st Century Achievement Award, Environmental Category	June 2012	Computerworld	Response to the Great East Japan Eathquake
Social and Environmental Green Evaluation System(SEGES), Superlative Stage	April 2012	Organization for Landscape and Urban Green Infrastructure	Fujitsu Numazu plant's greening activities