

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

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



Environmental and Energy Management

Reducing Electricity Consumption through an Energy Management System (Japan)

YKK's Kurobe plant installed a factory energy management system (FEMS) that, by making energy consumption "visible" in real time, helped them to not only achieve energy savings but improve production quality and productivity as well.

- [Fujitsu and YKK Jointly Develop Factory Energy Management System \(FEMS\) \[Press release\]](#)

[Solutions for Saving Electricity and Other forms of Energy \[in Japanese\]](#)

By helping to save electricity and energy in customers' offices, we are reducing the environmental burden, but we are also contributing greatly to cost reductions (for people, goods, transportation, etc.).

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Office and Buildings

Achieving Battery-less Electronic Devices and Wireless Sensor Units (Japan)

For homes and commercial buildings, we have developed energy management sensor units that require no battery or battery replacement and greatly extend the life of batteries for portable devices.

- [Fujitsu Semiconductor Releases Two New Energy Harvesting Power Management IC Products, Contributing to a Low Carbon Society \[Press release\]](#)

Energy harvesting

The use of technology to "harvest" energy by converting light, vibration, and other microsources of potential energy all around us into electricity.



Factories

Helping to Lower Resource Usage (Japan)

Mitsubishi Heavy Industries' aircraft design and development operations reduced the amount of resources it uses by cutting the number of prototypes it makes in designing and developing aircraft. It also reduced its electricity consumption by consolidating server functions.

[The "Engineering Cloud" Next-Generation Manufacturing Environment \[in Japanese\]](#)

The Engineering Cloud makes it possible to comfortably use 3D CAD applications on a standard PC - no dedicated workstation required - and to share information across multiple business sites.

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Regional and Governmental Bodies

Major Reduction in Office Space and a 45% Cut in CO2 Emissions (Japan)

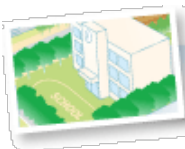
When the government offices of Nakano Ward in Tokyo introduced a new information system, they realized greater efficiency in both their work and use of office space. They also cut their CO2 emissions by about 45%.

[IPKNOWLEDGE Internal Information System \[in Japanese\]](#)

Consolidating office support systems certainly benefits operational efficiency but it also promotes highly efficient and transparent administrative and local government operation.

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Education

46% Reduction in Electricity Consumption through Virtualization (Japan)

Kansai University consolidated servers and adopted cloud services, and slashed its electricity consumption by 46% and cut total ICT costs by around 30%.

- [Fujitsu Cloud Solution Enhances Kansai University's Educational Research System Platform \[Press release\]](#)

[Virtualization Technology and Organic Storage Services II \[in Japanese\]](#)

Our virtualization technology and cloud-based file server services contribute to the optimization and more efficient use of ICT resources, and tighter security.

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Medical

Supporting the Transition to Paperless Operations at a Medical Institution (Finland)

Finland introduced a system allowing all of the country's medical institutions to share information on patients' medical and prescription histories, making paper-based management a thing of the past.

Electronic medical record network

This system makes it possible for people to receive appropriate medical services based on their medical histories, even at medical institutions they are visiting for the first time.

Helping to Improve the Quality of Medical Care and Reduce CO2 Emissions (Laos)

With less need to transport patients by aircraft and have physicians travel long distances, the Laotian Ministry of Health cut CO2 emissions by around 16.5 tons per year.

Remote medical consultation system

With this system, doctors in different locations can discuss medical options while viewing patient data monitors.

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Department Stores and Supermarkets

Major Reduction in POS Electricity Consumption (Japan)

A fashion retailer with 150 POS units eliminated its nighttime data transmissions and paper journals, and cut its CO2 emissions by about 45%.

["TeamStore/S" POS Systems for Specialty and Other Retailers \[in Japanese\]](#)

This system not only offers intuitive, easy-to-understand operation; it also responds to safety and security needs and is environmentally friendly.

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Financial Institutions

40% Reduction in CO2 Emissions through a System Upgrade (Japan)

Hokuriku Bank reduced the amount of space it needs to maintain, operate, and manage its ICT equipment, saved on energy needed for air conditioning, and cut its annual CO2 emissions by 119 tons - about 40%.

Virtualization technology

We support efficient use of computer resources at all our business' locations by consolidating servers previously located at each site and installing virtual desktops.

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Households

Contributing Residents to Save Energy and Water

The installation of network infrastructure made it easy for a building's tenants to monitor and manage their energy and water usage.

- [Case Study - Lend Lease](#)

[SSPF \(Smart Sensing Platform\) \[in Japanese\]](#)

We have made it easy to build energy management systems for residential and commercial structures.



Networks

Helping an Airport Conserve Energy (U.K.)

We provided a high-availability network to BAA Airport Limited, an airport management company, and helped London's Heathrow Airport save energy.

- [BAA Selects Fujitsu For Critical Network Integration Project At New Heathrow Airport Terminal \[Press release\]](#)

Network construction

Design and construction of a network connecting the boarding, security, and all other airport terminal systems.

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Datacenters

30% Reduction in Electricity Consumption (Singapore)

Singapore's National Institute of Education, through measures like server consolidation, cut its electricity consumption by 30%, and its annual electricity expense by \$60,000.

-  [Case Study - National Institute of Education, Singapore](#) [340KB]

Virtualization technology

Technology that optimizes datacenter usage and increases operating efficiency.

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Transportation and Shipping

Using Vehicle Location Data to Cut CO2 Emissions by up to 30%

Using a navigation function to determine the shortest route to a destination holds fuel consumption down and has reduced CO2 emissions by up to 30%.

"SPATIOWL" Cloud Service Using Location Data [in Japanese]

Consolidates a massive volume of vehicle location and other data on an ICT database and applies it to optimize the use of transportation resources.

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Smart Cities

Contributing to Environmentally Friendly Urban Development (Japan)

The Aizuwakamatsu area of Fukushima Prefecture, by introducing renewable energy, has taken an important step in developing an environmentally friendly, low-carbon society; revitalizing the local economy; creating new industry, and building a community robust against disasters.

- [Fujitsu, Aizu Wakamatsu City and Tohoku Electric Power Launch Smart Community Project in Japan's Aizu Wakamatsu Region \[Press release\]](#)

Application of renewable energy

Support for the introduction and use of electricity generation from solar, wind, wood biomass, and other forms of renewable energy.

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Agriculture

Using ICT to Reduce Applications of Agricultural Chemicals (Japan)

A vineyard and winery in Yamanashi Prefecture, by gathering temperature data in real time, succeeded in reducing the number of times it applies agricultural chemicals by 17, and cut its expenses by 300,000 yen.

Multi-sensing network

A network that measures and provides video data on weather conditions, and remotely collects measurement data, without entailing communications costs.

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Forestry

Helping to Conserve Biodiversity through the Appropriate Management of Forest Resources (Japan)

We made it possible to quickly and economically survey the status of invasive plant species threatening ecosystems, and examine the distribution of multiple tree species.

- [Fujitsu Contributes to Conserving Biodiversity with Hyperspectral Imaging Analysis \[Press release\]](#)

Forest species categorization service

This service can accurately identify cedar, cypress, and other tree species by analyzing aerial photographic data.



From Space

Helping to Stop Global Warming by Measuring GHGs

We are participating in a project that is taking high-precision measurements of CO₂ and methane concentration distributions from space and using them as basic data for initiatives to fight global warming.

"Ibuki" (GOSAT) observation data processing system

We have developed a data processing system for identifying concentrations of greenhouse gases, and an algorithm for producing related calculations.

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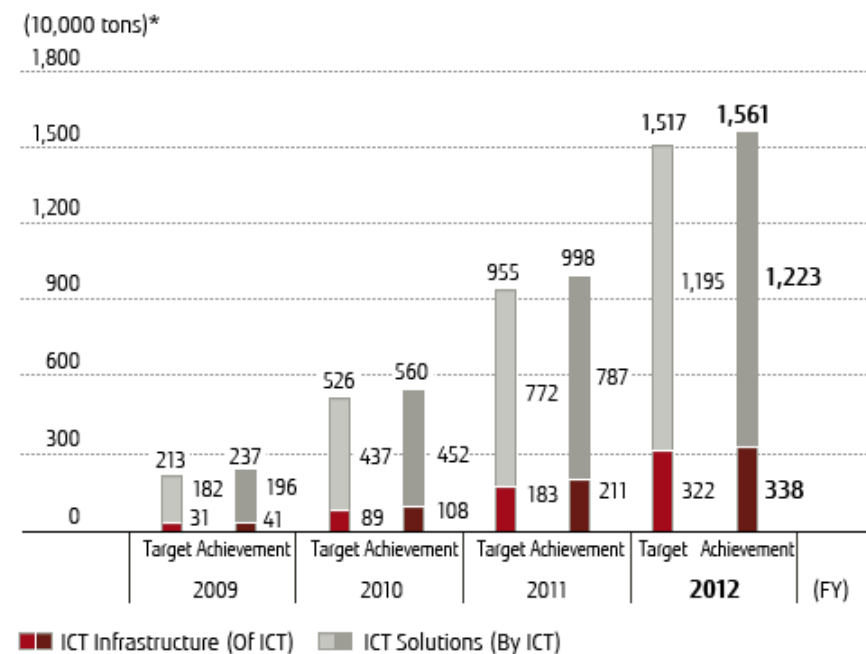
- [Green Policy Innovation: Contribute to reducing the environmental Burden of customers and society](#)
- [Fujitsu Group's Green ICT Helping Achieve a Low-Carbon, Prosperous Future: Case Study Archives](#)

Green ICT-Achievements in Reducing CO2 Emissions

Since FY 2007, the Fujitsu Group has been promoting Green Policy Innovation, a project for helping to reduce the environmental burden on customers and society, through Green ICT. The project's global objective is to cut CO2 emissions by more than 15 million tons over a four-year period from FY 2009 to FY 2012.

FY 2012 was the last year of the Green Policy Innovation project and over the four years beginning with FY 2009, we contributed to cumulative CO2 reductions of 3.38 million tons by providing ICT infrastructure products and 12.23 million tons by providing ICT solutions. With the total of 15.61 million tons, we succeeded in achieving our objective for the Green Policy Innovation project.

CO₂ Reduction Targets and Achievements by Green ICT



*Cumulative from FY 2009