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 are needed to reduce their burden on the environment, to respond to laws and regulations, and to form the kind of environmental management that leads to company growth through activities that match their business strategy. We support our customers with Environmentally Conscious Solutions and environmental management solutions that contribute to active ongoing improvements.

Environmentally Conscious Solutions

We use environmental impact assessments to evaluate the burdens when customers use Fujitsu Group software and ICT services. Products that achieve a defined reduction in CO_2 emissions are given "Environmentally Conscious Solution" status. In fiscal 2009 we added 37 such products, giving an updated total of 197. We now provide these helpful solutions to a wide variety of customers in a range of industries.

From 2007, we have also introduced the Eco-Quality Solutions Registration System, a qualitative environmental assessment system available to all employees within the Group. The system not only covers those business areas where we traditionally have customers, but also the tools we use within the Group to increase operational efficiency. In fiscal 2009, we newly registered 146 solutions to give a new total of 353. We now provide these Environmentally Conscious Solutions and Eco-Quality Solutions in every area where we do business.

In fiscal 2009, we continued to search for new solutions. In addition to efficiently providing customers with certified Environmentally Conscious Solutions, we have begun testing web tools that will enable us appeal to environmentally conscious customers by offering them a simple, quantitative simulation of the environmental impact even for systems that are not certified. From fiscal 2010, we will proactively recommend the tools we have completed and work to incorporate Eco-Quality functions into our development methods.

Environmental Impact Assessment Techniques

The Fujitsu Group utilizes techniques developed by Fujitsu Laboratories to quantitatively assess from the following viewpoints how much our customers' environmental burdens have been reduced by introducing our ICT solutions products.

- Evaluating the environmental benefits of introducing ICT 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 CO_2 emission quantity.

TOPICS

Developing and providing software that contributes to the environment

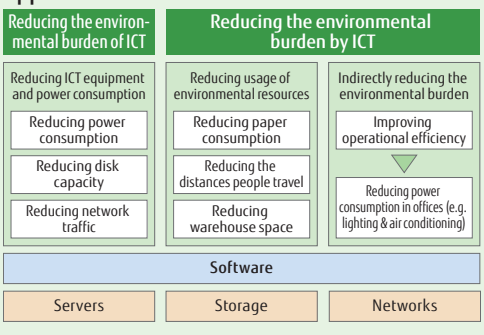
Concerning software development, the Fujitsu Group works on reducing the environmental burden of ICT itself and reducing the environmental burden by using ICT—and provides such software as environmental solutions.

We are reducing the environmental burden of ICT by providing software and solutions that help the efficient use of ICT resources. This is achieved by linking ICT equipment such as servers, storage, and networks; by providing software that can reduce power consumption by making consumption visible and control power supplies, and that that can reduce the volume of network communications; and by constructing private cloud environments. Also, installing our software can help customers reduce the environmental burden of their entire ICT system while it is operating if it includes our Green Products and Super Green Products. By modeling their ICT system and carrying out a green performance evaluation we can confirm these reductions. (For example, our evaluation showed that installing the energy-saving PRIMERGY BX900 Super Green Product under software control results in a reduction in power consumption of approximately 24%.)

We are also reducing the environmental burden by ICT to digitize paper records to reduce paper consumption, to reduce the amount of transport and storage space required, and we are using e-learning to reduce the distances people have to travel. In these ways, in a whole range of industries we are providing software that improves operational efficiency and thereby indirectly contributes to reducing environmental burdens.

Moving on, the Fujitsu Group will continue to make use of such techniques as green performance evaluations and also implement solutions within the Group itself as we strive to develop and provide our customers with software that can help achieve even greater reductions in their environmental burdens.

Approach of Software on Environment



Case Study 1
Sanrio Co., Ltd.

Saving resources by digitizing paperwork

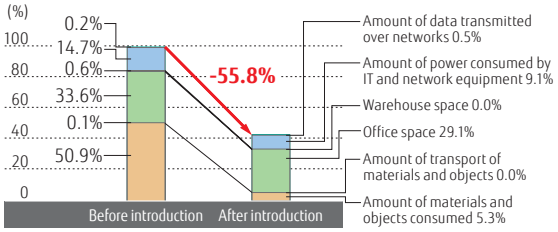
In May 2002, Sanrio Co., Ltd. began a "paperless project" to digitize its paperwork. At that time, Sanrio was printing out some 300,000 paper forms each month and so reducing paper use was an important issue for its environmental management. The objective of this project was not only to save on resources such as paper and ink, but also to reduce delivery and storage costs, the space required for printers, and operational costs.

On launching this project, Sanrio decided to use Fujitsu's Interstage List Works software for managing electronic forms. Using this software, Sanrio reduced the number of paper forms step by step, and by completion of the project in February 2005, was able to reduce them to 30,000 a month.

Not only were the original objectives of saving resources and reducing space requirements and costs achieved but Sanrio's operational efficiency also improved as electronic forms are easier to use than paper forms. For example, they are much easier to search. In addition, our software is enabling Sanrio to speed-up its ability to send and share information. Moreover, the software's security measures are also helping Sanrio prevent information leaking outside of the company by restricting access to highly confidential information to certain departments or employees.

In April 2010, Fujitsu Laboratories Ltd. calculated the reduction in CO_2 emissions that Sanrio had achieved since introducing Interstage List Works. It worked out that through reducing the volume of paper forms, the resultant reduction in storage space requirements, and the improvement in processing efficiency for information management, Sanrio had reduced its annual CO_2 emissions by more than half, from 52.3 tons per year prior to introducing our software to 23.1 tons per year afterwards.

Comparison of CO_2 Emissions Before and After Introduction of Interstage List Works.



Case Study 2
DESUCA LTD.

Promoting train and bus use through eco-points

DESUCA LTD. is the management company established by Tosa Electric Railway Co., Ltd. and Kochikenkotsu Inc. (tr: Kochi Prefecture Public Transport) for the DESUCA IC card, useable on trams and buses in Kochi Prefecture on the Island of Shikoku. Fujitsu created an IC card management system for DESUCA through which users collect traffic eco-points based on their use of public transport, and DESUCA points, which are redeemable by individuals.

When traffic eco-points are used for tram and bus fares, the extent to which CO_2 has been reduced below what it would have taken by car is calculated and displayed, which means that Kochi Prefecture can use the eco-points collected during the course of the year by all card users in its planning and calculations for measures to prevent global warming.

Kochi Prefecture is targeting a 6% reduction in CO_2 emissions by the end of FY 2010 compared to FY 1990, and is promoting a number of environmental-contribution activities in which local people, companies, and organizations take an active role.

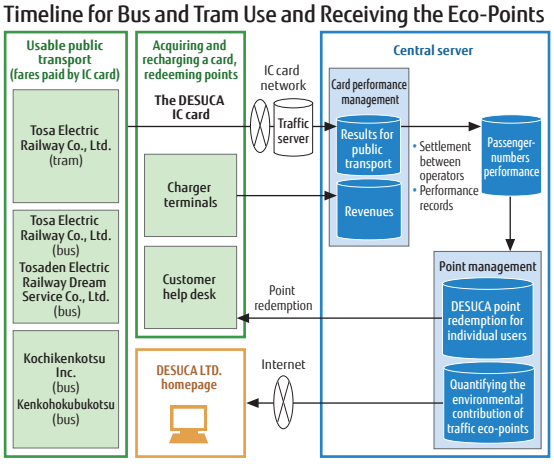
However, the problems of a declining birth rate and aging population mean that in recent years the numbers of passengers on buses and trams have been steadily declining at a rate of about 2% to 5% per year. DESUCA's goal is to position public transport as an essential part of the infrastructure of a sustainable regional society. They hope to achieve this by making visible to card users how much they can contribute to the environment by a modal shift to using public transportation rather than their own cars. In the space of a single year, from April 2009 to March 2010, the scheme succeeded in reducing CO_2 emissions by about 2,866 tons.

In the future, DESUCA's goal is for many more residents of Kochi Prefecture to participate in the scheme and to amalgamate it with other kinds of eco-point programs, such as those to reduce the use of plastic bags. We will continue to collaborate with our customers and business partners like DESUCA LTD. to find even more ways to render environmental contributions visible.


Miss DESUCA


Ryoma card

Timeline for Bus and Tram Use and Receiving the Eco-Points



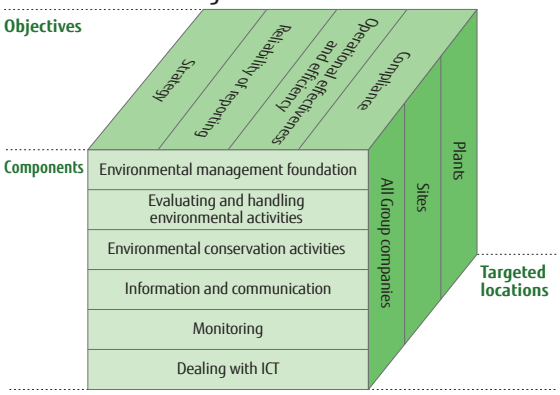
Environmental Solutions

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.

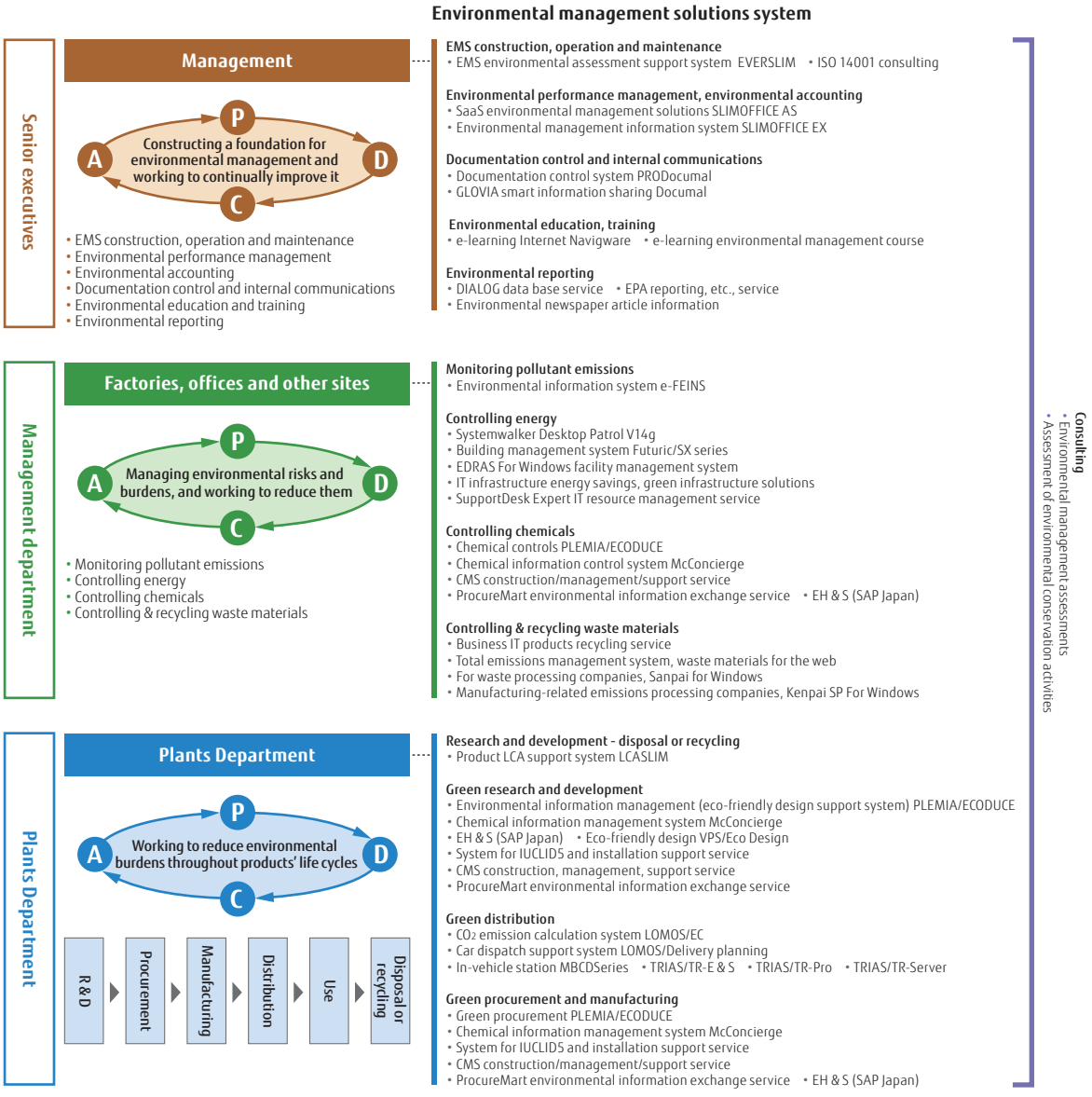
Based on our own original assessments developed by condensing the Group's knowledge and accomplishments, we utilize the Environmental Management Framework newly developed by Fujitsu Research Institute to evaluate our customers' management activities. We use the results of this evaluation to render visible 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 ICT solutions.

Environmental Management Framework



We use our Environmental Management Framework to identify the key objectives, targeted areas, and structural components of our customer's environmental activities, and adopt a management perspective to both reduce the environmental burden and improve economic value.

The Fujitsu Group's Environmental Management 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).

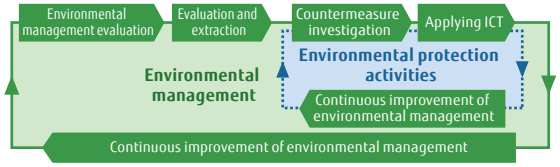
Having exhaustively identified the environmental conservation activities that a customer should undertake at each phase of its business process, we evaluate the efficiency, soundness and other aspects of its current activities and propose solutions for resolving the issues.

Environmental Business Solutions

In the Fujitsu Group, we are making full use of our expertise in reference modeling and advanced technologies that were devised in our environmental programs to provide our customers with ICT solutions that support their environmental management.

- Some Examples of Environmental Business Solutions
  SaaS environmental management solution SLIMOFFICE AS
- SLIMOFFICE EX Environmental Management Information System
- PLEMIA/ECODUCE Product Chemicals Management Solution

Environmental Solution Framework



Structure of an Environmental Management Solution

Case Study
Konica Minolta Business Expert, Inc

Configuring a Chemical Control System using ICT

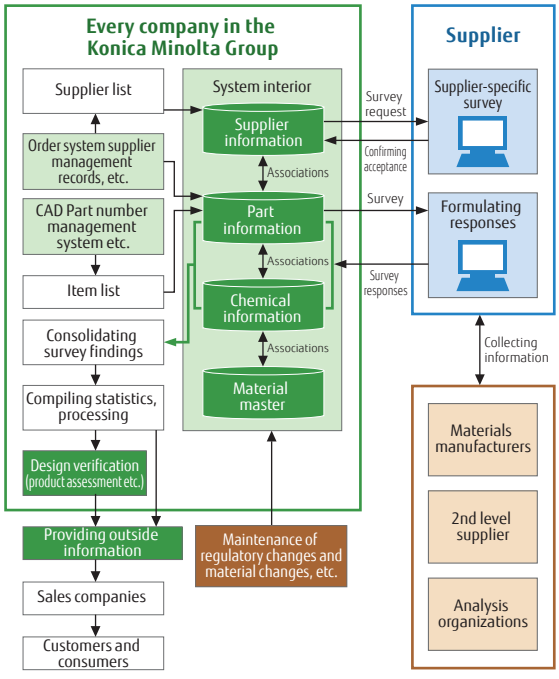
In conjunction with the enforcement of REACH and the strengthening of other regulations, such as the revisions to RoHS compliance requirements scheduled for 2010, companies must achieve even more stringent control of chemicals throughout the entire supply chain.

Konica Minolta Business Expert, Inc. performs functions such as engineering, logistics and environmental and safety consulting as common services for all companies in the Konica Minolta Group. It responded to the increasingly strict regulatory environment by constructing SIGMA, its new eco-friendly procurement system, and it decided to use the Fujitsu Group's PLEMIA/ECODUCE system to control chemicals in products as the foundation on which it would construct this new system.

PLEMIA/ECODUCE is compliant with REACH and provides integrated control of all the components used to create hardware. It creates tables showing chemical amounts within each component and can automatically calculate amounts on a per-product and per-unit basis. Further, it can be used in three languages (Japanese, English, and Chinese), can accommodate expansive and multifaceted survey responses, and can flexibly respond to changes in regulations and to the status of controlled chemicals.

When Konica Minolta Business Expert decided to use our system in constructing SIGMA, we improved the system's usability based on the needs of all the companies within the Konica Minolta Group, ensuring that users would be able to acquire the information as and when needed.

New System Survey Scheme



SIGMA came fully on-line in December 2009, and by helping to implement stringent chemical controls it continues to provide effective support for the Konica Minolta Group's compliance and risk management.