

# **Establishing Greener Supply Chain: Case of Fujitsu Limited**

**Japan**

Written by

**Ikuta Takafumi**

Research Fellow, Economic Research Center  
Fujitsu Research Institute

The case was developed with the cooperation of Fujitsu Limited and Alpha Network Inc, solely for educational purposes as a contribution to the Project entitled “New Corporate Procurement Strategy on Trade in Goods and Services in APEC Region - Supply-chain options with CSR perspective -” conducted under the auspices of the Asia Pacific Economic Cooperation (APEC). The case is neither designed nor intended to illustrate the correct or incorrect management of the situation or issues contained in the case. No part of this case can be reproduced, stored or used without the written permission of the author and the Asia Pacific Economic Cooperation.

## Executive Summary

This case focuses on activities that Fujitsu Limited, one of the Japanese leading electronics and information technology (IT) companies, undertook to address the environmental aspects of its supply chain management. Fujitsu has just promoted its CSR conscious procurement activities with the CSR Procurement Guidelines based on its CSR philosophy, The Fujitsu Way. The Fujitsu's CSR supply chain activities follow the same process as its green procurement activities which have been implemented for eight years.

The EU RoHS Directive made Fujitsu consider the necessity of revising its Green Procurement Direction (GDP). The latest revision of the GDP in March 2007 requires suppliers to establish an Environmental Management System (EMS), comply with regulations for Fujitsu specified chemical substances and establish Chemical Substances Management System (CMS).

Since majority of Fujitsu's suppliers were located in the Asia and Pacific regions, Fujitsu established the Environment Management Center (EMC) in Chinese Taipei, which was responsible for green supply chain management, especially in China and Chinese Taipei. No other Japanese company has established an independent overseas audit office such as EMC for green procurement. Since green procurement was not popular at that time, EMC had to communicate with the suppliers patiently to make them understand the concept, to overcome the gap between what suppliers said and what they did, and to follow through with their recommendations.

Alpha Network, a Fujitsu major supplier, obtained a "C" rank from EMC auditing at first but later on succeeded in establishing its own robust chemical substances management system and obtaining certification from its major customers other than Fujitsu. The key point of Fujitsu's achievement in the establishment of the green supply chain is the existence of the EMC which facilitated frequent and courteous communication with suppliers that led to mutual understanding and solutions to common concerns.

## Introduction

This case study focuses on the actions taken by Fujitsu Limited, one of the leading electronics and information technology (IT) companies in Japan, to address the environmental aspects of its supply chain. There are two reasons for this focus. First, the management of hazardous chemical substances throughout the supply chain has become critical for Fujitsu. Second, Fujitsu's initiatives in Asia are regarded as one of the most advanced among those undertaken by other Japanese electronics companies.

## Background

In 2001, the Dutch government banned the sale of Sony Play Station in the Netherlands because cables attached to the play station contained an amount of cadmium that exceeded what was allowed by Dutch standards. Although the cables were not produced by Sony but sourced from its suppliers, Sony had to bear the costs of pulling out the shipment and terminating the contract with the buyers. Learning about the incident, Fujitsu executives acted immediately to assess and control hazardous substances in their suppliers' products globally. In addition to "Sony shock", Fujitsu reviewed its definition of the containment of hazardous substances and clarified the

Fujitsu Group's view of this definition considering that it was the European Union (EU) which established the RoHS Directive.\*

The EU RoHS Directive which regulates the content of certain hazardous substances in electrical and electronic equipment was issued on 01 July 2006. It restricts the use of six substances: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ether (PBDE). Except for cadmium with a maximum permissible concentration of 100ppm, the permissible concentration for the other substances is 1000ppm. The requirement is applied to every homogeneous material. Manufacturers of finished goods are responsible for all homogeneous materials in their finished products. Hence, they need to assess and control six hazardous substances in their suppliers' products.

In addition to the EU, China has also introduced a similar kind of regulation called China RoHS, which was enforced on 01 March 2007. To cope with these regulations, electronics related companies have to monitor their supplier's products seriously.

## **Fujitsu's Green Procurement Direction**

Prior to the introduction of the RoHS Directive, Fujitsu predicted that hazardous chemical substances in products would be subjected to stricter legal regulations. Thus, it formulated its Green Procurement Direction (GPD) in June 2001. Fujitsu realized that the presence of hazardous substances in their products presented two types of risk: legal penalty and CSR risk. Fujitsu considered CSR risk as the more serious of the two. Fujitsu revised the GPD in July 2003 (Edition 2). The revised GPD specified how to manage and evaluate containment of the specified hazardous substances since it was necessary to survey rigidly whether the specified hazardous substances were contained in products or not, in order to meet legal regulations.

In consideration of the strong concern for CSR and the RoHS movement, Fujitsu made another revision (Edition 3.0) on the GPD in November 2004. The main points of this revision were: a) the review of the definition of the containment of hazardous substances; and b) the promotion of the purchase of all items, including equipment and software and services, from suppliers who have built their environmental management system (EMS).

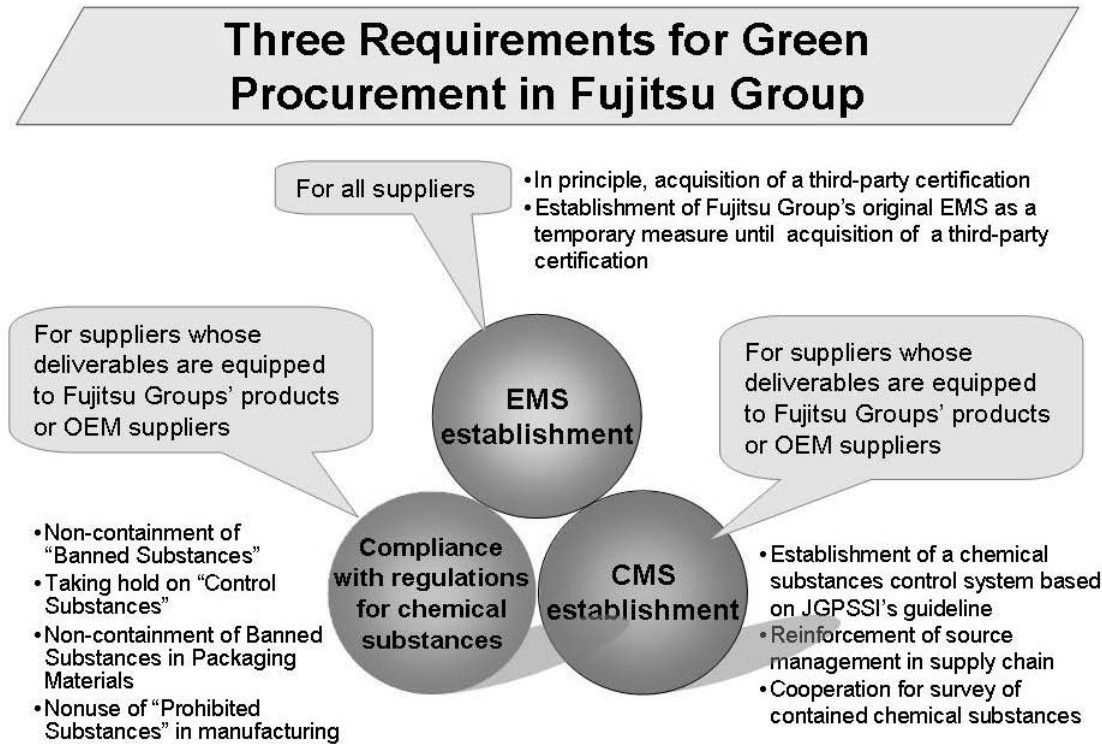
In May 2007 Fujitsu revised the GPD (Edition 4.0) for the fourth time since strict control of certain hazardous substances in products had become vital in every supply chain. In addition to the establishment of an EMS system, Fujitsu requested suppliers to establish a management system that would allow them to control the use of chemical substances in products delivered to Fujitsu. The revised GPD also made some changes on regulations governing specified chemical substances.

At present, there are three main green procurement requirements to be met by suppliers. As indicated in **Figure 1**, these are the following: 1) EMS establishment, 2) compliance with regulations for Fujitsu specified chemical substances, and 3) Chemical Substances Management System (CSM) establishment.

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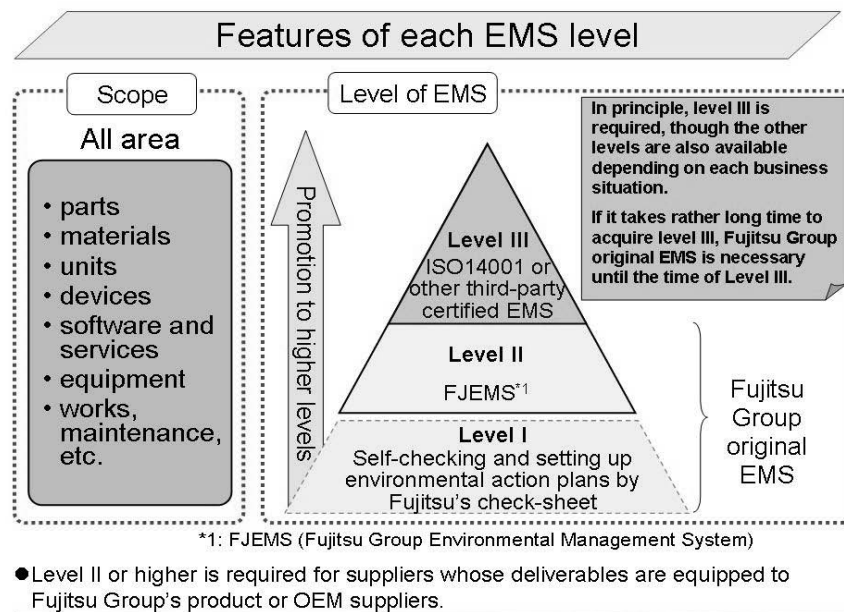
\* The RoHS Directive stands for Directive 2002/95/EC of the European Parliament and of the Council on 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronics equipment.

**Figure 1:**  
Requirements for Fujitsu's Green Procurement



In principle, EMS certification by a third-party organization is necessary. Fujitsu, however, has provided original EMS in consideration of small and medium-sized suppliers who would have difficulty acquiring third party EMS certification. As shown in **Figure 2**, there are three levels of EMS implementation status. The scope of EMS includes all areas of production such as software and services, equipment, works and maintenance, etc. as well as parts, materials, units and devices.

**Figure 2:**  
Features of Each EMS Required for Suppliers



To address the second requirement, Fujitsu defined its own regulations on chemical substances related to deliverables which are used in Fujitsu’s products or OEM products. Suppliers are requested to comply with the regulations. The specified chemical substances are classified into five categories: banned substances (28 groups), control substances (9 groups), banned substances of packaging materials (4 groups), prohibited substances in manufacturing process, and other restricted substances in delivery destination economies or areas.

In terms of CMS, Fujitsu requests the establishment of CMS by suppliers whose deliverables are inputs to Fujitsu’s products or are OEM suppliers. Each company in the supply chain needs to implement proper and effective management of chemical substances in their products. There are 15 action items in CMS as shown in **Table 1**. Fujitsu provides suppliers self-check sheet to manage the chemical substances content of their products. After the self-checking done by the suppliers, Fujitsu visits them and undertakes audits on CMS compliance based on the submitted self-check sheet. If necessary, Fujitsu requests the suppliers to improve their CMS operation and advise them how this could be done.

**Table 1:**  
**Action Items in CMS**

No.	Action Items
1	Guideline establishment
2	Definition of customer and other requirements
3	Definition of application parameters
4	Definition of organizational systems, roles, and responsibilities
5	Design and development
6	Obtain and confirm information regarding substances in products
7	Purchasing management
8	Confirmation on receipt
9	Process management
10	Revision management
11	Shipping confirmations
12	Handling non-conformances
13	Education and training
14	Documentation and documentation management
15	Communication (sharing and provision of information)

Action items are subject to change, if necessary.

Fujitsu’s green procurement activities do not aim to select good green-concerned suppliers and to cut off any supplier that does not meet Fujitsu’s standard. The purpose of Fujitsu’s activities is mainly to promote CSR in cooperation with suppliers. Fujitsu has requested that suppliers build their own EMS and CMS while phasing out the use of hazardous substances. In case a supplier is not able to meet the standards, Fujitsu intends to help the supplier build, operate and improve EMS.

### *Green Procurement Activities in Asia and Pacific Regions*

Most of Fujitsu’s suppliers are located in Asia and the Pacific regions. Fujitsu started green procurement by holding conferences on environment management in Chinese Taipei, Hong Kong,

China and Singapore in October 2003. In December 2003, Fujitsu established the Environment Management Centre (EMC) in Fujitsu Taiwan Limited (FTL), which was responsible for green supply chain management in Asia, especially in China and Chinese Taipei. At that time, there was no Japanese company with independent overseas office to audit green procurement compliance.

The EMC had four people in charge of audit. One came from the Fujitsu head office in Japan and the other three were local staff. EMC targeted to audit approximately 80 first tier suppliers, 70% of which were Chinese Taipei capital companies, 20% were Chinese (and Hong Kong, China) capital companies and the other 10% were Japanese capital companies. However, more than 80% of these suppliers were located in mainland China. The four EMC staff have audited more than 90% of these suppliers, traveling frequently between mainland China and Chinese Taipei.

EMC started with a survey of the suppliers during which they tried to make their suppliers understand Fujitsu's green procurement philosophy and the company's support for their activities for green products. Next, EMC did an on-site survey in order to: a) know their suppliers current situation; b) help them establish their environmental management system; c) provide advice on lead-free products; and d) introduce their suppliers to laboratories which inventory hazardous substances contents of products. By the end of November 2004, EMC had completed the survey of 61 suppliers.

Since green procurement was not a popular concept at that time in Asia, most suppliers were reluctant to accept EMC's survey. EMC had to communicate with the suppliers patiently and make them understand the concept of green procurement and its importance in reducing the risk of pollution, which could result in lost business opportunities if left unattended. EMC's consistent efforts gradually changed the suppliers mindset and increased their awareness of green products.

In January 2005, EMC started the second step survey or auditing of the green products activities of their suppliers. They conducted interviews and gathered documentary evidence. Based on the results of the survey, each supplier was assigned a letter grade (A, B, C and F). The grade reflected suppliers action items, such as a) environment management, b) suppliers management, c) design and development management, d) procurement management, e) production management, f) response to customer requirement and g) change management. The grade which was assigned to a supplier was used by Fujitsu sourcing managers to guide their procurement decisions.

By March of 2006, the EMC had finished the survey of about 50 suppliers who were graded A (20%), B (40%), and C (35%). One supplier was awarded an F grade. The A-rank supplier could supply its products without any supplementary requirement. However, the B-rank supplier was advised by EMC to further improve its management, and the C-rank supplier had to fulfill EMC's other requirements. On the other hand, if the F-rank supplier could not improve its performance, the supplier would not be able to supply its products to Fujitsu.

In 2006, there were some changes in the original method which EMC used to audit the above-mentioned green procurement activities. By April 2006, however, the new standardized auditing tool for all Fujitsu suppliers had been introduced globally.

In this common auditing tool, the number of suppliers action items increased to 15 from seven in the previous EMC system (Table 2). There were 81 requirements and some of them were critical requirements. The criteria for ranking A, B, C, and F were also changed. An A-rank meant that there was 100% compliance with the 81 requirements. B-rank indicated 100% compliance with the critical requirements, but not with the whole 81 requirements. C-rank was given when there was at least 60% compliance with the critical requirements and F-rank when there was less than 60% compliance.

Under the new auditing system, 80 suppliers were audited between April 2006 and February 2007. Among them, 20% were rated as A-rank, 10% as B-rank, 65% as C-rank, and one supplier as F-rank. After this audit, 45% of the non A-rank suppliers were advised on how to improve their performance. By the end of February 2007, about 90% of this group moved up to the A-rank category.

**Table 2:**  
**Action Items in Fujitsu's Supplier Auditing Sheet**

Action Items	Number of Questions
Guideline establishment (Policy development)	3
Definition of customer & other requirements (Identification of customers, clarification of their requirements)	3
Definition of application parameters (Scope of control)	3
Definition of organizational systems, roles & responsibilities	3
Design/Development (Design and development)	8
Obtain and confirm Information regarding substances in products (Procurement of chemical substances content information, verification)	7
Purchasing management (Supplier management)	7
Confirmation on receipt (In-coming confirmation)	4
Process management (Process control)	14
Revision management	3
Shipping confirmations (Shipment)	4
Handling non-confirming	4
Education/Training	3
Documentation and documentation management (Documentation and control)	6
Communication (Sharing & provision of information/ Information sharing)	9

The EMC survey did not aim to police the suppliers green product activities, but to help the suppliers understand the concept and management of green products. Suppliers who met EMC green product requirements were awarded Fujitsu Notification on Control on Chemical Substance Contained in Products (See **Appendix 1**). They displayed the notification in their CEO room and use it as an evidence of good trade practices, when they started new businesses with new customers.

The EMC also encountered some problems and obstacles. During the initial stage of implementing the CMS, suppliers did not recognize the importance of CMS and EMS as tools to improve environmental performance. The targeted first-tier suppliers were relatively large scale companies which traded with European and American customers, hence they understood basically the environmental issues affecting their business activities. The problem was that most of these companies were supplying other customers not only Fujitsu, and did not feel the urgency to respond to what they perceived as troublesome requirements of the company.



Having made the suppliers accept Fujitsu's green procurement rule, the EMS team was again confronted with another problem that occurred in the implementation phase. Compared to the Japanese suppliers, managers of overseas suppliers were likely to exaggerate what their respective companies have done to "green" their products. The EMC auditors sometimes found a gap between what suppliers reported and what they did. It was important that EMC observed first what the company was doing.

The other problem stemmed from the description of the procurement rule originally issued in Japanese. When the EMC used the audit sheet that was directly translated from that Japanese version, some provisions were unclear to Chinese suppliers. In the Japanese version, many articles were described as "recommendation" which Japanese suppliers usually followed and sometimes did voluntarily. However, Chinese suppliers took it to mean that they had some leeway as to how far they should go along with the "recommendation" which were really not just recommendatory. After EMC found this cultural gap, they started to explain to suppliers that what were given as recommendations were really orders that they had to follow.

## **Supplier's Activities – Alpha Network**

Alpha Network Inc is one of the major Fujitsu suppliers. It was founded in August 2003 from a spin-off of the ODM/OEM business unit of D-Link Corp. Its major product lines include MAN/LAN, broadband, wireless, VoIP/IAD, and digital home. Alpha Network is the largest networking ODM/OEM vendor in Chinese Taipei, with US\$551 million revenue in 2005. Its head office is located in Hsinchu, Chinese Taipei, and the production centers are in Hsinchu and in Dongguan, China. The company has more than 4,500 employees worldwide.

Fujitsu mainly procures switches and broad-band devices from Alpha Network. At that time, Alpha Network was trying to catch up with Japanese companies in operational excellence at the plant level and introduced TQM (Total Quality Management) and TPM (Total Productive Maintenance). However, they did not realize that controlling hazardous chemicals in their products was important to achieve sustainable growth. They were not supportive of Fujitsu's environment management audit because they thought that accepting Fujitsu's environment management requirement was an additional burden. Fujitsu EMC realized that it was necessary to change their Asian supplier's mind to be more environmentally conscious.

In 2005, Alpha Network obtained a C-rank from EMC's auditing. The low rating embarrassed the CEO who then ordered all employees to tackle green product activities seriously to get the Fujitsu A-rank. With the support of Fujitsu EMC, Alpha Network introduced various measures in quick succession. It also adopted its original green product (GP) standard and the GP information management system.

Alpha Network's GP standard was based on RoHS standard compliance which has almost the same definition of hazardous substances as Fujitsu's. However, there was a difference in the allowable concentration value of cadmium and its compounds. The maximum allowed by Fujitsu's standard was 75ppm, but Alpha Network's standard allowed a maximum of 100ppm. Fujitsu's 75ppm standard was according to the standard of the Netherlands, which was stricter than the 100ppm standard of EU.\* Fujitsu and Alpha Network discussed this issue carefully, and Fujitsu finally agreed to accept Alpha Network's standard. One reason was that Alpha Network had many customers other than Fujitsu. Hence, it was not reasonable to impose Fujitsu's 75ppm

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\* After the revision of the Green Procurement Direction in May 2007, Fujitsu changed the standard from 75ppm to 100ppm.

standard that other customers did not require. In addition, Alpha Network's GP management system seemed very reliable and was designed to minimize environmental risk.

In order to maintain GP quality, the lead-free operation area was separated and materials from the material receiving area to the finished goods warehouse were labeled "GP" for identification. In the Dongguan factory, there were two types of production lines: one was non-GP and the other was GP line. "G" was added at the end of the original P/N to make it easy to identify green products. Even tools, baskets and other devices which were used for production were separated into two categories, GP and non-GP. Shop floor workers are also separated into two groups, GP and non-GP. Alpha Network experienced a mix of GP and non-GP products in 2005, but in 2006 and 2007, no such mix was found. In 2006, 83% of GP products were ready for mass production and 85% of total materials were GP materials.

While Fujitsu exerted much effort in the beginning to help Alpha Network in pursuing the GP track, Alpha Network had since then aggressively established its own dynamic chemical substances management system. Through these efforts, Alpha Network was awarded certification not only by Fujitsu but also by its major customers.

## **Fujitsu and CSR Supply Chain Management**

### *Company Profile*

The communications division of Fuji Electric (now Fuji Electric Holdings Co.) was spun off into Fuji Tsushinki Manufacturing Corporation in June 1935 to manufacture communications devices. The name was changed in 1967 to Fujitsu Limited. At present, Fujitsu is a leading provider of customer-focused IT and communications products for the global market.

Fujitsu recognizes that IT permeates nearly every aspect of daily life, greatly expanding convenience and producing dramatic changes in the way things are done. Along with this trend, Fujitsu believes that IT systems deployed in business and social infrastructures have become increasingly sophisticated and complex, and the requirement for high system reliability is more important than ever. Therefore, Fujitsu continually seeks to create new value by providing customers with comprehensive solutions comprising highly reliable high-performance products and services based on powerful technologies. Based on a thorough understanding of the environments in which the customers operate, the overall nature of its operations and its business challenges, Fujitsu creates and deploys IT solutions that contribute to the growth and development of its business. Moreover, Fujitsu fully realizes that the stable operation of IT systems is critical in supporting the activities of business and society as a whole, and therefore Fujitsu is renewing its focus to improve operational quality. In so doing, Fujitsu seeks to grow together with its customers as a valued and trusted business partner.

As of the end of March 2006, Fujitsu's employees totaled 158,000 and its net sales amounted to 4,791.4 billion yen.<sup>1</sup> In fiscal year 2005, in order to provide comprehensive solutions that combined world-class hardware, software and services and ensure high customer satisfaction, Fujitsu reclassified the business segments from a product and technology-focused orientation to a customer-centric categorization. Fujitsu's major business segments were: 1) Technology Solutions

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<sup>1</sup>Consolidated financial figures for fiscal year ending March 2006.

(consisting of two sub-segments as System Platforms and Services), 2) Ubiquitous Product Solutions (PCs/mobile phones, hard disk drives and others) and 3) Device Solutions (LSI Devices, electronic components and others). With the change in the business segments, Fujitsu has added the term “solutions” to each segment to clearly emphasize the business objectives at Fujitsu which is to provide solutions that convert technology into business value for its customers. Shares of the net sales by business segments were 57.4% for Technology Solutions, 20.4% for Ubiquitous Product Solutions, 13.6% for Device Solutions, and 8.6% for the other operations.

Fujitsu avoids a one-size-fits-all global business approach and pursues instead business development strategies tailored to specific regional markets. Overseas, Fujitsu is now developing its business operations through 70 locations. Some 33.2% of the net sales comes from overseas operations (14.4% from Europe, 8.1% from the Americas, and 10.7% from Asia, Australia, and others). Currently, outsourcing services to the public sector in the UK are performing well. This is also true with the optical communications business in North America, and sales of the system platforms in Europe and the US (due in good part to Fujitsu Siemens Computer).

### *Fujitsu CSR Philosophy – The FUJITSU Way*

The FUJITSU Way, which was introduced in 2002, is the core set of principles guiding the corporate and individual actions of the Fujitsu Group and their continuing development as good global corporate citizens.

The FUJITSU Way underlines the great importance that management places on customers, employees, environment, and quality and makes explicit the values they associate with each of these. Fujitsu believes that focusing equally on all these areas enables them to contribute to the well-being of their stakeholders, suppliers and customers, local and international communities, public entities and administrators – and as a result helps foster the profitable growth of the Fujitsu Group. Underlying this thinking is its commitment to promote the concept of sustainability. Meeting this commitment requires highly integrated efforts encompassing several different aspects of corporate activity: a social aspect, wherein the corporation fosters fair and honest work practices and a respect for human rights; and an economic aspect, wherein the corporation pursues sound and efficient management and seeks to explain its actions by providing adequate disclosure of information. It also requires an environmental aspect, wherein the corporation promotes global environmental protection initiatives ranging from actions to prevent global warming to actions that help build a recycling-minded society. Fujitsu hopes to continue meeting the expectations and earning the trust of its stakeholders by demonstrating measurable results in each of these so-called triple bottom line areas. As the core set of principles guiding Fujitsu’s socially responsible corporate behavior, The FUJITSU Way is the inspiration for all business policies, plans and Group-wide activities (See **Appendix 2**).

In July 2004, The FUJITSU Way Promotion Council was established in order to accelerate its penetration and implementation as a body reporting directly to the Management Council and a Compliance Committee. In addition, Fujitsu realigned the Risk Management Committee and Environmental Committee, which both had previously operated independently, under The FUJITSU Way Promotion Council.

To promote risk management, The FUJITSU Way Promotion Council continuously monitors the implementation of risk prevention measures by working to raise awareness of risks and by gathering information on specific risks, including potential ones. In anticipation of the enactment of Japan's Financial Instruments and Exchange Law, in the second half of fiscal 2005, Fujitsu launched a project to construct an internal control system that would ensure the validity and

credibility of financial reports. Along with establishing a promotion organization dedicated to this endeavor, Fujitsu is working to extend the system across the Group, including domestic and overseas subsidiaries. The goals of the project also include achieving greater efficiency through the pursuit of business process reforms across the Group (See **Appendix 3**).

Among the various CSR issues, Fujitsu has strong orientation towards operating in harmony with the environment since its earliest days. Fujitsu does not regard environmental protection as a cost, but rather as a key corporate value. Based on this stance, Fujitsu engages in a wide range of leading-edge environmental activities. As a result, the globally integrated certification of Fujitsu's environmental management system Fujitsu acquired in March 2006, under the ISO 14001 international standard. The concept of business operation in harmony with the environment is taking even firmer root in Fujitsu's corporate culture.

### *CSR Supply Chain Management*

Recognizing a growing awareness of the importance of CSR, Fujitsu is working with its suppliers to ensure that procurement activities are carried out in accordance with CSR principles throughout the entire supply chain. In April 2005, the CSR Reinforcement Department was established in the Procurement Planning Division of the Procurement Unit. In March 2006, the Procurement Policy was published. This policy emphasizes: a) coexistence with suppliers, b) fair and proper evaluation and selection of suppliers, and c) promotion of CSR conscious procurement activities.

Based on The FUJITSU Way, a basic stance on procurement was articulated under the theme, "Promoting CSR Conscious Procurement." At the same time, the CSR Procurement Guidelines were published, outlining for its suppliers various CSR-related considerations Fujitsu requires in order to do business. These guidelines stipulate items concerning the following: a) protection of the global environment, b) legal compliance, c) respect for human rights, labor, health and society, d) assurance of safety and quality of products and services, e) maintenance and promotion of information society, and f) fair trade and corporate ethics such as protection of confidential information and intellectual property, and prohibition of bribes.

Fujitsu's CSR supply chain management has just started, and Fujitsu is going to stipulate additional CSR measures as part of the criteria by which Fujitsu can evaluate and prioritize its suppliers. Fujitsu is also planning to boost the CSR related support for its suppliers by providing assistance in developing environmental management systems, hosting CSR related seminars, and so on. The CSR conscious procurement activities covered domestic suppliers at first, and then expanded to international suppliers. Fujitsu's CSR supply chain activities would follow the same way that its green procurement activities did.

## **Further Considerations**

With the rapid progress of globalization, MNCs (Multi-National Companies) have extended their supply chain to developing economies. Their focus on the core activities, resulting in outsourcing of non-core functions, makes their supply chain more complex and sensitive. However, hazardous waste, hazardous chemical content, child labor and poor working conditions have become serious problems in factories located in developing economies. The concern about such environmental and societal issues is growing in government and society.

For example, Nike was criticized for sourcing its products from factories with low wages, poor

working conditions and human rights problems. These criticisms were fed by a series of scandals and public relations nightmares, involving underpaid workers in Indonesia and child labor in Cambodia and Viet Nam, that combined to tarnish Nike's image (Locke and Romis (2007)<sup>2</sup>. These environmental and health problems occurred at their suppliers' plants and workers at these plants were not Nike employees and yet Nike was punished.

At present, international nongovernmental organizations (NGOs) are very much concerned with the working conditions in electronics and IT factories in developing economies. Their interest in the electronics industry stems in part from some improvement of the supply chain conditions in the textile and food industries which they used to criticize. Other reasons for this interest are: 1) remarkable influence of electronics on society through worldwide spread of IT, 2) pollution resulting from hazardous substances at production and disposal stage, and 3) the industry lends itself well to CSR because young people are major customers of electronics products such as mobile phones and personal computers (PCs).

In today's society companies have social responsibility not only to themselves, but also to their suppliers. Hence, in addition to the traditional considerations of quality, delivery, and cost, their supply chain management should be concerned with environmental and social aspects. The companies are expected to develop and implement responsible supply chain strategies.

The EU introduced the RoHS Directive which defined maximum concentration of electrical and electronic equipment on 01 July 2006 and electrical and electronic manufacturers had to meet the maximum concentration of every single homogeneous material. Companies became responsible for hazardous substances in their suppliers' products.

Fujitsu has been leading green products procurement in the world and requires the highest standard from its suppliers. As a result, suppliers know that if they meet Fujitsu's requirement, they automatically meet other companies' standards and they can apply the same standards on their suppliers as well.

Just like other electronics companies, Fujitsu faces the problem of high worker turnover in supplier companies which reduces their capacity for greening the supply chain management system. Electronics companies are constrained to undertake continuous audit of suppliers which becomes an additional burden for them.

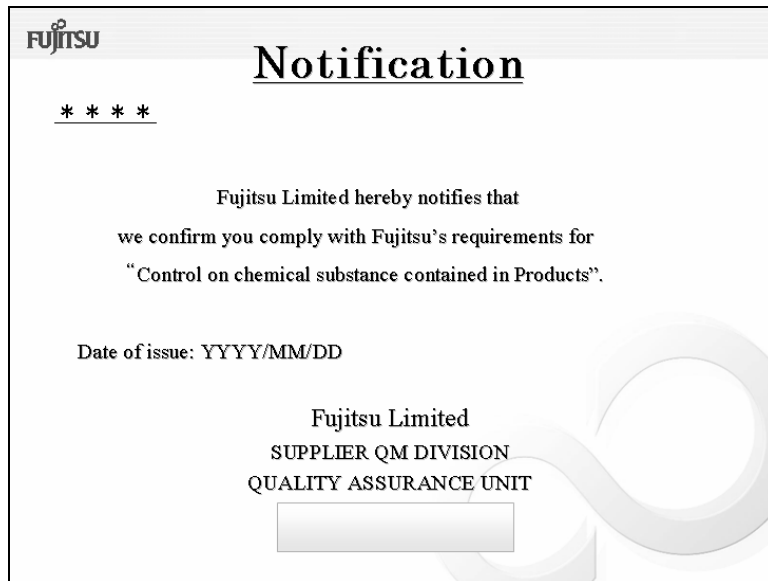
To address the problem, Fujitsu has established an overseas audit office, the EMC. The EMC makes it possible to have frequent communication with the suppliers resulting in mutual understanding or a *guanxi* relationship. According to Kambil et al. (2006)<sup>3</sup>, *guanxi* is "the effective use of social capital to advance business relations and is created through personal contacts, to bridge critical information gap, enabling favor based on trust or mutual benefits."

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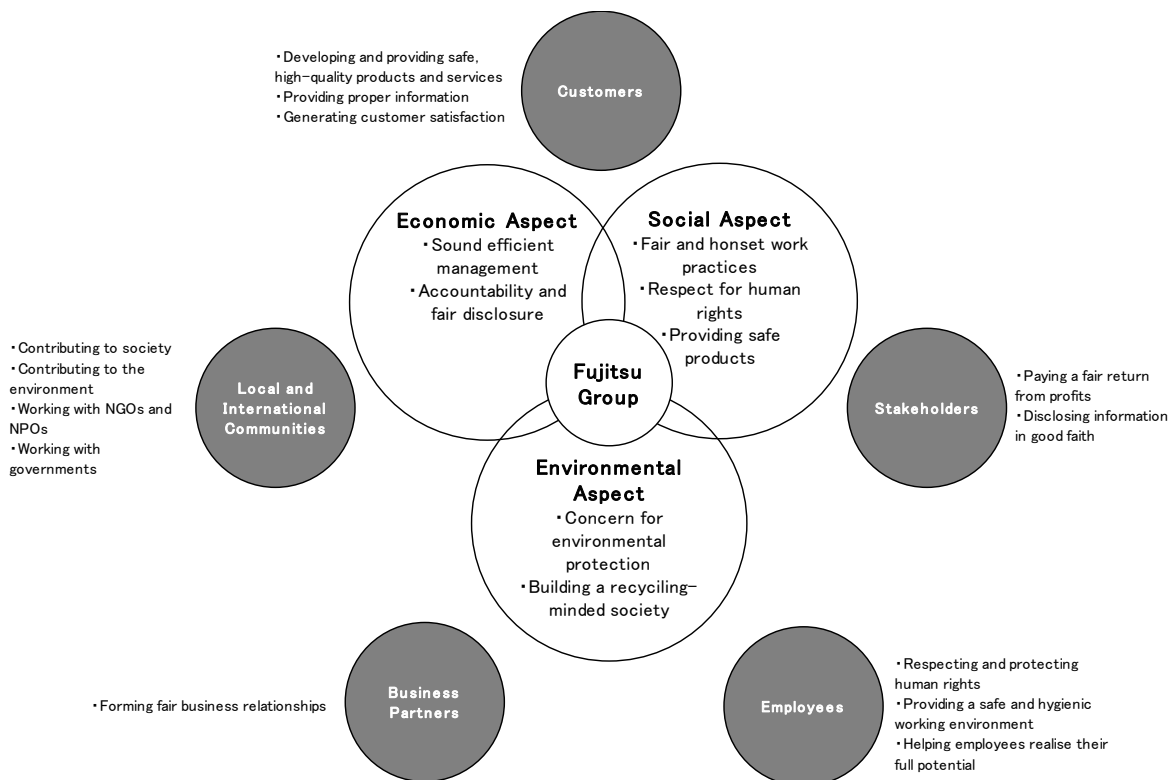
<sup>2</sup> Locke, Richard and Monica Romis, "Improving Working Conditions in a Global Supply Chain", *MIT Sloan Management Review*, 48,2 (Winter 2007).

<sup>3</sup> Kambil, Ajit, Victor Wei-the Long and Clarence Kwan, "The Seven Disciplines for Venturing in China", *MIT Sloan Management Review*, (Winter 2006).

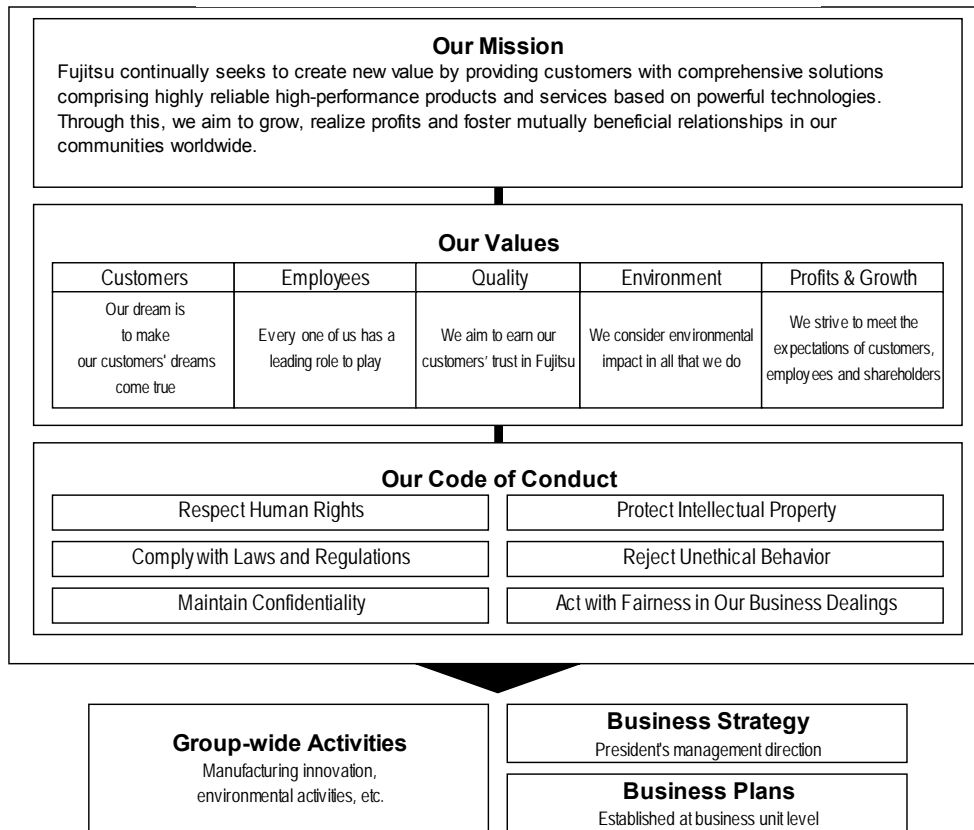
**Appendix 1**  
**Sample of Notification to Fujitsu Supplier**



**Appendix 2**  
**The FUJITSU WAY**



**The FUJITSU WAY – Turning Dreams Into Reality**



**Appendix 3 Corporate Governance Framework (including The FUJITSU Way promotion organization)**

