

## Green Procurement

We promote green procurement in corporation with our suppliers to deliver the products and service with low environmental impact, to our customer.

### Procurement based on Green Procurement Standard

Fujitsu Group has established “Fujitsu Group Green Procurement Standard” which frames the basic concepts of procuring eco-friendly parts, materials and products so that both domestic (Japanese) and overseas suppliers can promote the green procurement.

#### Establishment of Chemical substances Management System

We are asking our part suppliers to establish the CMS \*1 based on “Guidelines for the management of chemical substances in products” which are defined as industrial standard made by JAMP \*2, in order to enhance the management of the restricted chemical substances contained in the parts and products in the whole supply chain.

\*1: CMS--Chemical substances Management System

\*2: JAMP--Joint Article Management Promotion-consortium

#### Acquisition of the information on chemical substances in products

Fujitsu Group complies with laws and regulations, and defines regally-banned chemical substances as “do not contain” substances, and prohibits using them in order to prevent the impact on human health and environmental pollution by them preliminarily.

Moreover, Fujitsu Group defines hazardous chemical substances or chemical substances with possibility of hazard. It is required to report and disclose such “containment-control” substances if any of them are contained in products and to promote the survey of chemical substances in product / parts by using AIS\*3 and MSDSplus\*4 provided by the JAMP in cooperation with suppliers so that the use of hazardous or possibly hazardous substances can be prohibited clearly.

Fujitsu Group has been examining the use of phthalic esters, which are added as prohibited substances in the RoHS\*5 Directive.

\*3: AIS--Article Information Sheet

\*4: MSDSplus--Material Safety Data Sheet plus

\*5: RoHS--Restriction on Hazardous Substances

#### Efforts to “Control and Reduce CO<sub>2</sub>”

We are asking our suppliers to promote the programs and activities to reduce the CO<sub>2</sub> emission as a part of the measure against the climate change including global by providing them with necessary information on how a company can deal with the global warming issue and how to promote the CO<sub>2</sub> emission reduction activities.

## Manufacturing (Niigata Plant)

We are working on the digital manufacturing with Internet of things (IoT) - Challenge for Smart Factory fusing the virtual and real worlds -

### Process Innovation together with Development Divisions

To ensure design quality ahead of schedule (realization of front-loading), we get feedback about the process from trial-production, verification through product design by utilizing 3D printers for plastic and metal materials, and improve the efficiency of developing process. Thus, we have just realized large time-saving from product design to mass production.

Furthermore, we established the virtual verification system using the 3D data with the concept of “Making without actually making” to speedily respond to a variety of requests from our customers and the changes of market. Thanks to this virtual verification technology, we could shorten the time for developing, supply the products steadily and stabilize the product quality while mitigating various environmental impacts (related to electricity, waste, materials, logistics etc.).

### Expansion and Level-up of Production Management System with Tablet System

In Niigata Plant, we introduced the tablet system in FY2014, where tablets are used for controlling processes and check sheets. We have been realizing the reduction of the environmental burdens by improving the work efficiency, controlling the real-time data and promoting paperless thanks to this system. We have also provided this system in our main overseas plants and there are 930 tablet devices working in Japan and other countries. In one of our overseas plants (outside Japan), these devices are used not only in the assembly lines but also in the part working processes.

In addition, we developed the analysis tool by ourselves in Niigata Plant to analyze the data acquired through this tablet system so as to utilize the systemized tablet data effectively from the three viewpoints—efficiency improvement, quality enhancement and cultivation of human resources—and we started working on fusing the worksite improvement through the visualization. With this, we are looking forward to more improvements in the plant at a higher level and the reduction of the environmental burdens.

