

Manufacturing / Procurement

Manufacturing

Based on its policies of promoting local design, local production, and local consumption, Fuji Electric employs a framework in which production bases in Japan act as mother factories for global manufacturing operations and coordinate with overseas bases in China and other Asian countries. We also strive to transmit the manufacturing DNA that we have continued to pass down since Fuji Electric's inception while tackling new manufacturing challenges utilizing IoT, improving productivity, and seeking to provide products and services of the highest caliber.

Manufacturing Policies

- Innovate production with IoT and M2M*
- Promotion of global supply chain reform
- Enhance on-site production capabilities, production technology capabilities, and human resource development

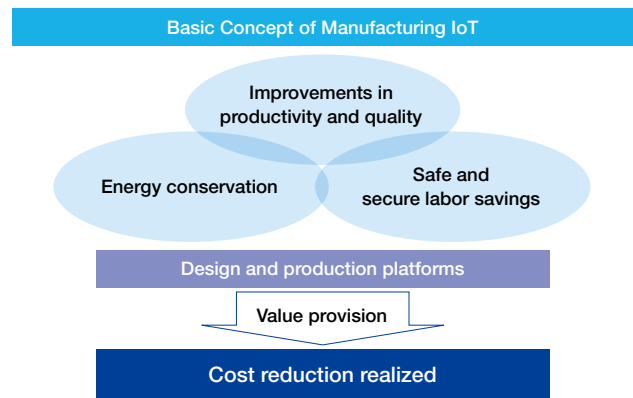
* Machine to Machine: System for realizing automated and optimal control by having machines exchange information without human involvement



Initiatives in Fiscal 2016

Cost Reductions through Manufacturing IoT

The basic concept of manufacturing IoT has been realized as cost reductions. Based on this concept, we identified model factories at which we worked toward improvements in productivity and quality, safe and secure labor savings, and energy conservation. In addition, we promoted use of Fuji Electric's IoT products while seeking to develop new products. Going forward, these activities will be extended to other factories and proposed to customers to contribute to their businesses.



Strengthening of Production Technology Capabilities

In fiscal 2016, we undertook a reorganization of the models manufactured at the Suzuka Factory and the Kobe Factory, which are both mother factories for global manufacturing activities in the power electronics systems business. This move was designed to promote in-house production and automation. Production of components was consolidated into the Suzuka Factory to facilitate efficient manufacturing and the creation of competitive components. Meanwhile, the manufacturing of system products was delegated to the Kobe Factory,

establishing a system in which all processes, from sheet metal processing to shipment, are handled within the factory. As a result, we are now poised to provide more flexible responses to customer needs.



Kobe Factory at which all processes from sheet metal processing to shipment are handled

TOPICS

The Otawara Factory, which mainly produces molded-case circuit breakers, and the Mie Factory, which produces vending machines and freezers and refrigerated showcases, have been designated as model factories at which we will advance manufacturing IoT initiatives. At these factories, we are tracking production, facility operation status, and energy usage metrics in real-time and promoting cost reduction by identifying and analyzing bottleneck processes and automating the creation of processed data.



Monitor tracking metrics

Real-time monitoring of production information



Enhancement of Human Resource Development

Global mother factories in Japan are working to accumulate technologies and expertise. Moreover, by encouraging our employees to participate in the National Skills Competition and the Skill Grand Prix,* we are eager to nurture ambitious employees with superior abilities in production engineering and technology that can take on high-level challenges. At the same time, we are actively transmitting the manufacturing DNA cultivated in Japan to overseas operating bases in order to ensure that we can provide the same levels of quality and service anywhere in the world.

* Held jointly by the Ministry of Health, Labour and Welfare, the Japan Vocational Ability Development Association, and ZENGIREN, this competition lets seasoned engineers put their skills to the test to determine who is the best in Japan. With no age restriction, the level of competition in this event is higher than in the National Skills Competition, which is generally only open to people ages 23 and under.



Transfer of skills in Suzuka factory

Future Initiatives

In the future, Fuji Electric will pursue production innovations based on the concept of completely localized production along with cost reduction utilizing IoT in order to boost product competitiveness. In fiscal 2017, production activities will commence at the second vending machine factory in Dalian, China. Also, measures for automating testing and inspection processes, utilizing AI for autonomous production, and reducing cost with IoT will be implemented under the guidance of global mother factories in Japan.

Procurement

To increase profitability and reduce risks, Fuji Electric has built a global-scale procurement system and is promoting CSR-oriented procurement activities as it strives to keep down all costs of materials used in products as well as indirect materials.

Procurement Policies

- Promote Strategic Procurement in coordination with Design and development departments
- Heighten indirect material cost reductions and achieve reductions on a global scale
- Enhance global procurement capabilities and cultivate purchasing personnel
- Promote CSR in Procurement

Initiatives in Fiscal 2016



Procurement training at a production base in China

Strengthening of Cost Reduction Measures for Direct and Indirect Materials

In fiscal 2016, the scope of Strategic Procurement (Early Procurement Involvement) activities, which procurement department become involved from the early stages of R&D to reduce costs, was expanded to include suppliers. This move

enabled us to realize cost reductions through improved productivity and other means by promoting coordination between procurement departments, design departments, and suppliers.

Enhancement of Global Procurement Capabilities

In order to enhance global procurement capabilities, we made an effort to educate purchasing personnel working at production bases located in China and the ASEAN region regarding compliance, procurement risks, and negotiation techniques. In addition,

we stepped up coordination with global mother factories in Japan and sharing of supplier and parts information on a Company-wide basis while approaching new local suppliers, successfully furthering growth through these efforts.

Future Initiatives

Moving forward, we will continue to enhance global procurement capabilities while developing procurement information databases that can be accessed from any base around the world in order to facilitate business growth.