



# ISSUES 05

## Customer Satisfaction Management

### Business Relevance

As consumers' interest in product quality and safety increases, Samsung SDI's major customer companies are reinforcing their product safety and eco-friendly policies. Therefore, it is important to prevent any risks related to quality which can occur in the market by pre-testing consumers' usage conditions and environment and verifying suitability of application. Samsung SDI plans to achieve customer satisfaction by improving its product quality and reinforcing communication with customers.

Risk	Opportunity
▶ Increased customer safety risks, and strengthening of safety regulations and technology barriers according to such risks	▶ Growth of a high-capacity, high-density battery market focusing on electric vehicle market

### Our Approach

Samsung SDI is making efforts to manage customer satisfaction, in accordance with its customer-centric quality guideline "Creating Value for Customers, Making the World a Better Place". To reinforce product competitiveness, the company is running an internal award system for diagnosing and evaluating business sites' quality status, and by constantly operating a customer satisfaction and response system, the company is quickly responding to customers' needs. Each business division is making effort to improve customer satisfaction by pushing forward with various activities that strengthen quality competitiveness.

### Our Vision



### Key Performance Index

	2016 Objectives	2015 Objectives	2015 Performance	Achievement Level
Incongruity Rate of Measuring Instrument Management	0.5%	-	0.6%	-
Quality Training Number of Classes	33	23	23	Achieved



# Customer Satisfaction

## Customer Satisfaction Management System

### Principles for Strengthening Quality Competence

#### Creation of Quality Guideline Regulations for the Entire Company

In July 2015, quality guidelines which had originally been operated separately by each business division have been integrated, establishing a quality guideline and code of conduct that can serve as a basic direction for consolidated quality management activity based on the CEO's customer-oriented quality principle. The company is making efforts to further expand quality control by regulating the evolving process of quality guidelines in accordance with the CEO's statement and changes in the business environment.

#### SDI Quality Management Award Program

To reinforce company-wide quality competitiveness, SDI introduced the quality management award program which, by diagnosing business sites' quality status under objective evaluation criteria, evaluates and awards sites based on their achievements. In 2015, which was the first year since the introduction of the program, 5 domestic sites were evaluated, and outstanding sites were selected and awarded. The evaluation score was calculated by adding up the achievement scores according to internal/external failure costs, process evaluation by monthly achievements of core quality index, and field evaluation through certification system field inspections. Evaluations were created and the results were shared through monthly meetings. For field evaluations, inspections were conducted by utilizing check sheets so that realistic quality level evaluations were possible by reestablishing 8 existing quality processes into 5 management areas and systematizing the standards. Through this evaluation, the company was able to understand the advantages and disadvantages according to site, and created its foundation for upward leveling in the quality system.

Quality Principles

#### Creating Value for Customers, Making the World a Better Place

Code of Conduct

- 1) Build customers' trust by creating value
- 2) Place the environment and safety first
- 3) Improve Quality Management System and Process

## | Site Evaluation Check List

Development Quality Management	1	Quality Operation and Management	Goal/Achievement Management G Rule & Process Standardization P Abnormality Generation/Change Management D Quality System Operation Audit, Quality Training C Quality Improvement Management Achievement Understanding the Effects A
Parts Management		Development Quality Management	Goal/Achievement Management G Rule & Process Standardization P Customer (Development) Sample & Creditability Evaluation D Process C/List_Product Management C T-VOC Aftercare A
Change Management	2	Quality Management for Parts	Goal/Achievement Management G Rule & Process Standardization P Quality Management for Parts (Material) Inspection, Creditability, Mass Production, Changes D Company Management (Including new companies) Quality Improvement, CTQ C SQE (Supplier Quality Engineer) Aftercare A
Manufacturing Quality Management		Manufacturing Quality Management	Goal/Achievement Management G Rule & Process Standardization P Mass Production Creditability Management D Process quality (Measuring instrument/inspector/foreign substances/ESD, EOS, etc.) C Aftercare (Including crosssectional deployment) Audit A
Abnormality Generation Management	3	Customer Quality Management	Goal/Achievement Management G Rule & Process Standardization P Customer Response Handling TAT & System Operation Compliance D Customer Protection Measure Inspection C Customer Dissatisfaction Aftercare A
Customer Quality Management		Customer Quality Management	Goal/Achievement Management G Rule & Process Standardization P Customer Response Handling TAT & System Operation Compliance D Customer Protection Measure Inspection C Customer Dissatisfaction Aftercare A
Shipment Quality Management	4	Quality Management for Parts	Goal/Achievement Management G Rule & Process Standardization P Quality Management for Parts (Material) Inspection, Creditability, Mass Production, Changes D Company Management (Including new companies) Quality Improvement, CTQ C SQE (Supplier Quality Engineer) Aftercare A
Mass Production Creditability Management		Quality Management for Parts	Goal/Achievement Management G Rule & Process Standardization P Quality Management for Parts (Material) Inspection, Creditability, Mass Production, Changes D Company Management (Including new companies) Quality Improvement, CTQ C SQE (Supplier Quality Engineer) Aftercare A
	5	Manufacturing Quality Management	Goal/Achievement Management G Rule & Process Standardization P Mass Production Creditability Management D Process quality (Measuring instrument/inspector/foreign substances/ESD, EOS, etc.) C Aftercare (Including crosssectional deployment) Audit A
		Customer Quality Management	Goal/Achievement Management G Rule & Process Standardization P Customer Response Handling TAT & System Operation Compliance D Customer Protection Measure Inspection C Customer Dissatisfaction Aftercare A

## Customer Service (CS) System and Guidelines

Samsung SDI reflects the voice of customers (VOC) in its management activities. In order to achieve customer satisfaction, the company created various communication methods, such as social media, customer visits, and customer satisfaction surveys. Through its website, each division collects and listens to VOC in real-time, processes related to the handled VOC items and post-improvements are operated. Moreover, through social media platforms such as its blog (<http://blog.naver.com/sdibattery>), the company provides company news and useful information. Customer visits are conducted regularly through quality exchange meetings where records of customer needs are collected.

## Customer Satisfaction Survey

Samsung SDI conducts customer satisfaction surveys by each business division. Customer satisfaction survey refers to a process that calculates scores for each item, ranging from quality of products to due date, service, technology development power, etc. The survey is intended to provide basic information for customer satisfaction management and quality system linkage for improvements by analyzing and improving products of business divisions and reporting on advantages and disadvantages of the infrastructure based on the result of customer satisfaction survey.

## Customer Satisfaction Management Activities



### Customer Satisfaction Management Activities by Business Division

#### Small-sized Li-ion Batteries

The small-sized battery division conducted the CSI (Customer Satisfaction Index) Survey with 28 major customers as a part of customer satisfaction activities. From the dissatisfactory factors and objective analysis drawn from this research, the division conducted customer satisfaction improvement activities in regard to customer dissatisfaction. By setting Lead Time for responses by customer VOC levels and improving its internal management system, communication with customers is revitalized, and the division is minimizing any dissatisfaction due to delayed responses. Likewise, with the introduction of customer quality sentiment index and internal feedback, the division is conducting regular management of quality trends of its products, and by proactively identifying any possible quality risks, the division is making efforts to provide products with high reliability and quality to customers. To respond to chronic quality problems, the quality assurance team is operating the Mr. Quality program to train quality specialists. By partnering with all related divisions on each quality issue, analysis on fundamental causes and research on direction of improvement are being conducted so that chronic problems are resolved.



#### Automotive and ESS Batteries

Through constant efforts to enhance quality management, the automotive and ESS battery division strives to achieve “Zero Defects” and to increase customer satisfaction. Therefore, two levels of activities are being conducted: 1) Execution of proactive verification of products under the field conditions equivalent to the environment of regular use before releasing the product 2) Task force operations for minimizing the defect rate within the process. Likewise, based on the analysis of customer VOC, internal inspections are conducted, and the automotives and ESS batteries division works to reinforce inspections on all battery cells from warehousing to shipping, and strengthening pilot product shipments. Furthermore, the division aims to secure its accountability by operating a customer safety system on its products, and for quality reinforcement of components. The division operates the SQE (Supplier Quality Engineer) organization for quality management of partner companies, which improves product competitiveness of partner companies and SDI as a whole.



#### Electronic Materials

The electronic material division is making efforts in quality management by operating an electronic material quality team under the quality assurance team, which is directly under the supervision of the CEO. To simplify the process regarding VOC management, the division is operating the Focus 119 system. The Focus 119 system systematically manages all phases of VOC, from its registration to disposal, and also checks for improvements on issues raised while customer compensations are also conducted through the system. Moreover, by annually conducting customer satisfaction surveys, the division enhances quality improvement and customer responsiveness.

#### | Compliance to Global Regulations about the Products

Samsung SDI is reflecting on detailed responses to its toxic material management regulation in order to respond to global regulations. By utilizing internal systems such as ERP REACH and SMIS (Sustainability Management Initiative System) the company efficiently checks for regulations and requirements set forth by regulations, and conducts time-appropriate response activities.

Regulations	Major Contents	Regulations	Major Contents
RoHS	Regulation enacted by the European Union which limits the use of materials that are hazardous to the human body, such as lead, cadmium, mercury, hexavalent chromium, PBBs, PBDEs, etc. for producing electronic and electric products.	GADSL	List of hazardous materials designated by the associations of major vehicle producing companies in countries such as the European Union, Korea, the United States, Japan.
ELV	Regulation on mandatory recycling of disused vehicles, which dictates that vehicle-producing companies must collect disused vehicles.	REACH	Regulation which mandates chemical materials which are produced or imported by more than 1 ton per year within the European Union are to be registered, evaluated, and approved following their distribution amount and hazards.

\* RoHS (Restriction of the use of Hazardous Substances in EEE) \* GHADSL (Global Automotive Declarable Substance List)  
 \* ELV (End of Life Vehicle) \* REACH (Registration, Evaluation, Authorization and Restriction of Chemicals)