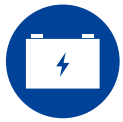
SAMSUNG SDI

CREATIVE
ENERGY
AND
MATERIALS
SOLUTION
LEADER

Samsung SDI Sustainability Report 2017

SAMSUNG SDI



SAMSUNG SDI

SUSTAINABILITY REPORT 2017

Since 2003, as part of the effort to communicate with stakeholders, Samsung SDI has published annual sustainability reports.
This year's report, appearing for the fifteenth time, is an informative source on our goal setting in relation to sustainable development goals (SDGs) and our performance in terms of sustainability engagement. In addition, we also present divisional business performance and outlines the current state of affairs, meeting thus the concerns of such stakeholders as customers, investors, and the local community.
Furthermore, this document also proactively reports on our responses to global issues.

ABOUT THIS REPORT

Reporting Period

Samsung SDI Sustainability Report 2017 covers activities and performance between January 1, 2017 and December 31, 2017, as well as some data through the first half of 2018 having a major influence on stakeholder opinions. To allow time-series analyses, the report reflects three years' worth of quantitative performance data, starting from 2015.

Reporting Standards

The report complies with the core options of the GRI (Global Reporting Initiatives) Standards and the IIRC (International Integrated Reporting Council) Framework. Financial information in the report is based on Korean International Financial Reporting Standards (K-IFRS).
The basis for calculating units from 2015 has been changed to public disclosure materials (consolidated business reports).

Reporting Scope and Boundary

The reporting scope and boundary pertain to activities and performance of Samsung SDI's head office, all domestic and foreign subsidiary bodies for production and sales, research centers, and offices. Note that in cases where special attention is required with respect to the reporting scope and boundary, separate comments have been included for the reader's convenience.

Report Verification

Financial information in the report was verified by Samjong KPMG, and all non-financial information has undergone third-party auditing by LRQA.

Contact

If you have any inquiries concerning this report or wish to suggest possible improvements, please reach us using the contact information shown here. .

SM Office
Tel. 031-8006-3100
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CEO MESSAGE

"As a global leader in the energy and advanced materials sectors, Samsung SDI is committed to providing the best technology and service, while at the same time communicating with more of our stakeholders to fulfill our social responsibility, helping to create a more advanced society."

Dear Samsung SDI Stakeholders,

It is my great pleasure to greet you all by means of the Samsung SDI Sustainability Report 2017.

From our position at the center of energy and advanced materials business that enrich people's lives, Samsung SDI has continued to achieve sustainable growth and development.

In 2017, all of our employees came together to overcome various trials and tribulations and normalize business that had slowed, effecting a turnaround after three sluggish years and gaining a foothold for still greater growth. Thus, it was a very significant year.

Our Automotive Battery Division completed construction of a production plant in Hungary, establishing a global triangular stronghold while leading the market with diverse products and technologies able to help speed the advent of the age of electric vehicles. Our ESS Division successfully delivered the world's largest-scale energy storage system to the state of California, winning recognition for superior technology and the highest levels of safety while furthering growth. In the meantime, securing quality competitiveness, the Small-Sized Li-ion Battery Division invested in reinforced safety and solidified its technological leadership position through mass production of new cylindrical battery cells. The Electronic Materials Division is growing continuously through enhanced competitiveness in the semiconductor, display, and solar photovoltaic materials sectors.

On top of successful business performance, the company was also able to produce visible results in 2017 in terms of sustainability, notably in the areas of safety, environment, and social responsibility. We reviewed the various risk factors that may occur in each area and strengthened our management capacity to dramatically reduce potential risk factors. The value of these achievements was recognized by external evaluators as well.

In the 2017 results of the DJSI (Dow Jones Sustainability Index), an annual global review of sustainability, the company was listed thirteenth in the Dow Jones Sustainability World Index. It was also listed tenth in the "Global 100: Most Sustainable Corporations" announced at the Davos Forum in January 2018. Thanks to our stakeholders' warm-hearted support over the last year, all our employees were able to dedicate themselves to fulfilling their duties and to advancing our performance and sustainability values.

Although uncertainties in the business environment still remain in 2018, all of Samsung SDI's employees are united as one in seeking to attain full-scale growth on the back of differentiated technology and rigorous risk management.

The company will aggressively expand investment, while at the same time strengthening efficiency and internal stability and communicating with stakeholders to ensure progress in the right direction.

Sustainable management is not the result of short-term efforts at some particular moment, but rather the record of a long-standing history of results that have arisen through generations of management and investment.

In each and every chapter of its history, Samsung SDI will reflect on whether it is fully fulfilling its corporate social responsibility, and beyond this, will put forth more aggressive investment and effort to re-emerge as an admired company.

In addition, the company will continue to release sustainable management reports as a form of communication focused on raising wider awareness of Samsung SDI's role as a responsible member of society while also leveraging our website to expand channels of engagement. Once again, I would like to express my heartfelt gratitude to you, our stakeholders, for your active participation and goodwill. We look forward to your continuing encouragement and interest, grounded in true affection.

Thank you.

Young Hyun Jun
President and CEO of Samsung SDI

SUSTAIN

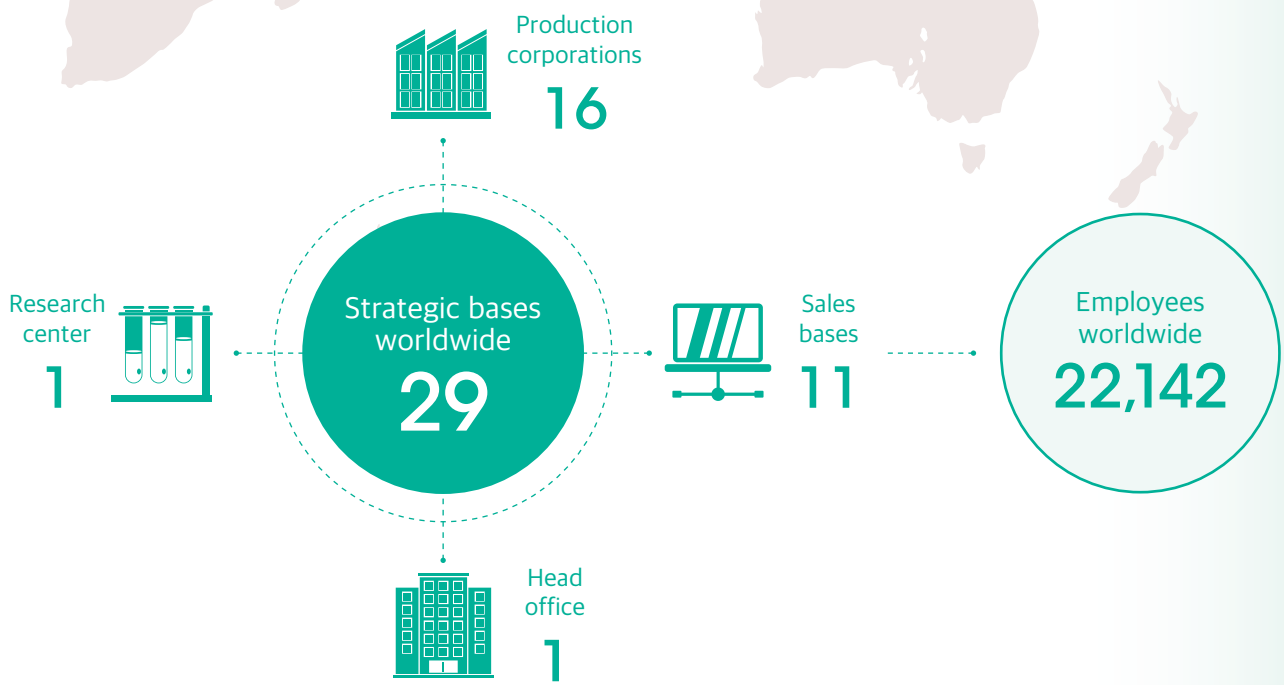
ABLE MANAGEMENT OVERVIEW

The State of Samsung SDI Today

Creative Energy & Materials Solution Leader

Samsung SDI produces advanced materials for use in the IT and automotive industries, secondary batteries for ESS (energy storage systems), semiconductors, displays, and photovoltaics. We are committed to enriching people's lives and opening up a new future through ceaseless innovation, aiming to emerge as a 'creative leader in energy and advanced materials.'

GLOBAL NETWORK



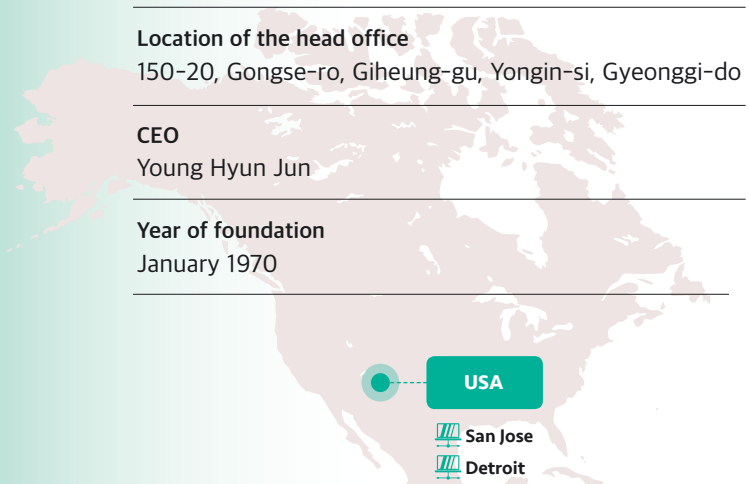
The current state of Samsung SDI

Company name
SAMSUNG SDI CO., LTD.

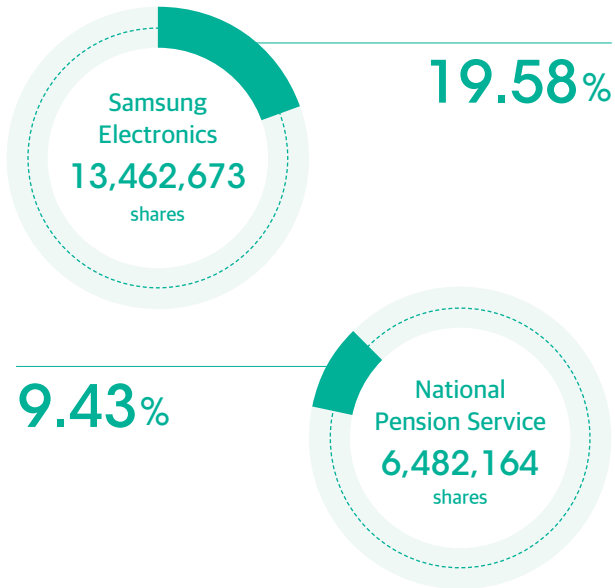
Location of the head office
150-20, Gongse-ro, Giheung-gu, Yongin-si, Gyeonggi-do

CEO
Young Hyun Jun

Year of foundation
January 1970



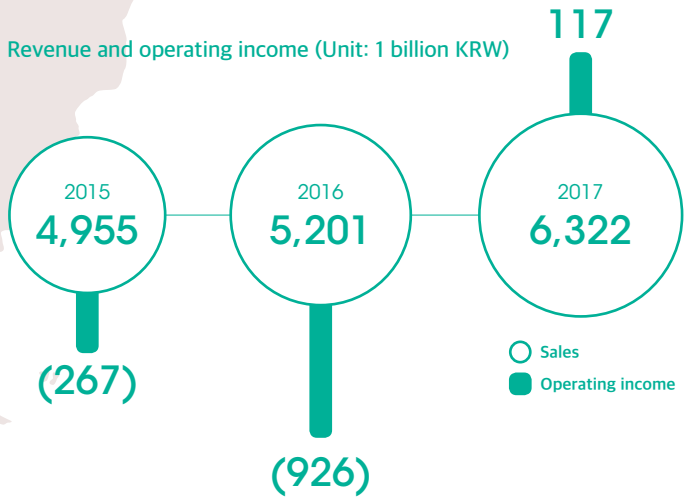
The current state of stock ownership (As of December 31, 2017)



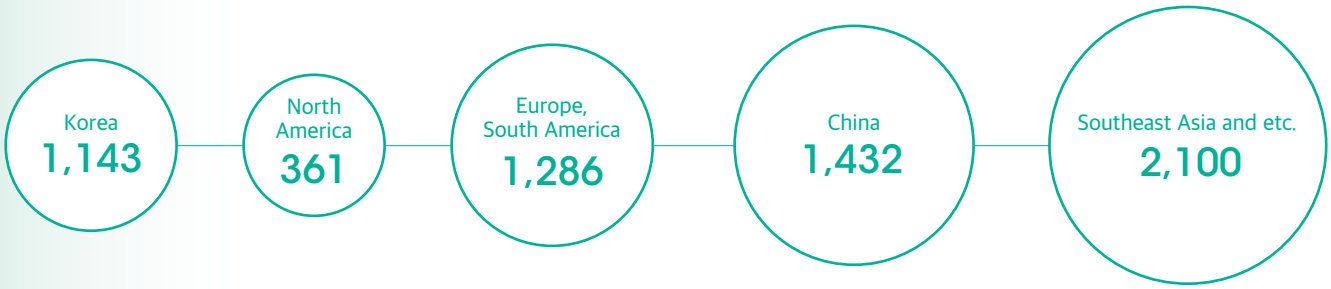
Current state of business

Since 2015, Samsung SDI has achieved consistent growth, leading to continuous increases in sales.
In terms of operating income, some losses were recorded up through 2016. However, we changed course in 2017 to achieve growth, and positive trends in the future are expected.

Revenue and operating income (Unit: 1 billion KRW)



Revenue by region in 2017 (Unit: 1 billion KRW)



Value-creation model

Being a 'creative leader of energy and advanced materials' is the path Samsung SDI aims to follow henceforth. As a creative leader with an essential role in driving technology and markets based on change and innovation, we are creating value with the potential to enrich life for all humankind.

1 Research and development

We are striving towards product standardization in the energy and advanced materials sectors and shortened development lead time.

- Research and development of safe products
- Development of environmentally-friendly batteries

2 Purchasing

By applying strategic sourcing, we have adopted optimized purchasing strategies in the global market environment and reduced materials procurement lead time, thereby operating a rational purchasing process.

- Establishment of shared-growth practices with partner companies and suppliers
- Management of conflict minerals

3 Production

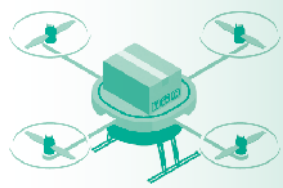
Production planning and quality control are managed in consideration of reliability through product safety. Applying 'just-in-time' production of the required amounts also serves to increase profitability.

- Improved environmental efficiency
- Safety management of work sites
- Increased profitability through cost management

4 Logistics

The sale process is differentiated from the logistics process to reduce logistics lead time, while integrated information systems enable immediate goods receipt and prompt shipment.

- Environmentally-friendly transport



INPUT

Financial capital

- Listed on Korea Stock Exchange in 1979
- No. of issued stocks (Common): 68,764,530
- Cash dividends: 10.1%
- Procurement of financial capital from shareholders and investors
- Disclosure of business status, including general meetings of shareholders

Intellectual capital

- Intangible assets: 897 billion KRW
- R&D investment (percentage of revenue): 526 billion KRW (8.3%)
- R&D staff (percentage of total employees): 2,215 persons (24.2%)

Social/relational capital

- Operation of a total of 29 strongholds
- Engagement with local community and implementation of social contribution activities through Green Planet Environment School and donated eyesight recovery surgeries
- Investment in social contribution activities: 4 billion KRW

Manufacturing capital

- Production corporations: 16
- Production capacity:
  - Small-sized Li-ion batteries: 1,392 million KRW
  - EMC (epoxy molding compound): 9,520 tons
  - Polaroid film: 81.08 million m^2
- Tangible assets: 2.93 trillion KRW

Human capital

- Personnel: 22,142
- Executive directors: 3
  Outside directors: 4
- New hires: 8,006
- Education and training expenditures: 8.3 billion KRW

Natural capital

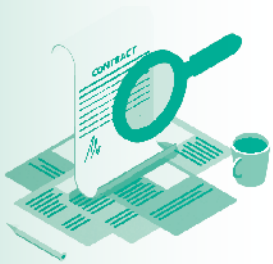
- ISO 14001 certification
- Energy reduction investment costs: 3,522 million KRW
- Energy consumption: 14,988 TJ

Creative Energy & Materials Solution Leader

Samsung SDI produces advanced materials for use in the IT and automotive industries, secondary batteries for ESS (energy storage systems), semiconductors, displays, and photovoltaics. We ceaselessly strive to achieve innovations with the capacity to catalyze next-generation growth engines.

5 Sales

We apply demand forecasting to devise demand planning and carries out global order management.
- Establishment of global sales network



6 Service

Customer satisfaction is surveyed in each business area, and such complex factors as product performance and quality control are evaluated and managed.
- Establishment and implementation of customer satisfaction management system

7 Marketing and sales

Marketing and supply chain management are linked together to establish a rational sales network.
- Customer feedback reflection process underway
- Customer satisfaction surveys conducted

8 Business management

We devise and implement plans to effectively manage such resources as finance, environment, organizational culture, and compliance.
- Organizational culture management
- Risk management
- Compliance/ethical management
- Social contributions

Financial capital
- Revenue:
  - Energy solutions: 4.30 trillion KRW
  - Electronic materials: 2.017 trillion KRW
- Net income: 643 billion KRW

Intellectual capital
- Establishment and approval of strategic directions for each division
- Patents registered: 13,304

Social/relational capital
- Corporate taxes: 181 billion KRW
- Contracts with business partners terminated due to irregularities: 0
- Beneficiaries of donated eyesight recovery surgeries: 224,399 (cumulative)
- Beneficiaries of Green Planet Environment School: 17,095 (cumulative)

OUTPUT

Manufacturing capital
- Main production output:
  - Small-sized Li-ion batteries: 1,158 million
  - EMC: 6,236 tons
  - Polaroid film: 66,046,000 m^2
- S-partner certification: 90 companies
- Total purchase amount: 4.43 trillion KRW

Human capital
- Ratio of local recruits: 58.3%
- Ratio of female managers: 8.2%
- Ratio of certified quality-control engineers (excluding ISO 9001): 26%
- Employee injury frequency rate/loss rate: 0.14/7.67

Natural capital
- Greenhouse gas (GHG) emissions: 919,382 tCO_2e
- Energy reduction performance:
  - Fuel reduction: 1.1 billion KRW
  - Power reduction: 9.1 billion KRW

Status of business and performance

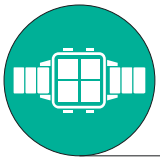
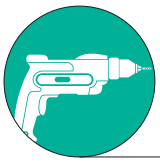
Small-sized Li-ion Batteries

Based on a quality-oriented management philosophy and continuous technological innovation, Samsung SDI has held the top spot in the global lithium-ion battery market since 2010. The Small sized Li-ion Battery Division develops and sells cylindrical, prismatic, and polymer battery cells. Based on our superior technology, we are continuously expanding not only into new areas with high projected growth in the expanding 5G communication and IoT environment, including IT devices such as smartphone wearables and augmented/virtual reality (AR/VR), but also goods that demand eco-friendly and high-efficiency operation, such as power tools and electric bicycles and golf carts.

Tae Hyuk Ahn, Executive Vice President

Amid difficulties at home and abroad, we were able to achieve a successful turnaround through timely product development, business restructuring, and innovations in manufacturing efficiency, thanks to the combined efforts of the entire division. As part of its efforts to solidify its top position in the Small-sized Li-ion battery market, the division will build and follow key strategies like 'Best Product Development' and 'Maximum Efficiency Realization.'

APPLICATION

IT DEVICES		High-energy density technology enables extended mobile phone usage time and the realization of much thinner and lighter designs.
		We are developing curved and flat batteries with applications for various forms of wearable devices and improving battery efficiency, opening up unlimited market expansion potential.
POWER DEVICES		By enabling differentiated high-power and high-capacity products that broaden the scope of electrical devices development, the division is expanding device working areas.
		High-capacity battery technology induces a greater freedom of movement, stronger suction capacity, and longer usage time.
TRANS DEVICES		This can be diversely applied to a variety of powerful and long-lasting devices, such as electric bikes and motor scooters.

❖ Tracking system for battery cells

Samsung SDI has established a cell tracking system to enable tracking of production history and quality for any given cell, in the event of a problem. A barcode printed on the surface of each cell is used to store and manage key facility information and quality data history for each process. This has enhanced the quality analysis system, enabling rapid response should problems arise. Verification and stabilization have been completed in a pilot phase, and plans are in place for its application in overseas corporations in 2018.

Establishment of data collection system	Production, defect history management of production processes	Acquisition of data trackability of major quality factors	Development of diversified history and supply status
By cell ID Inquiry function	In-process production/ Production/defect history management	Tracking key factor quality data for each process	Management of production history, quality attributes history, and supply status

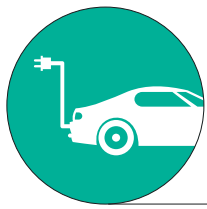
Automotive Batteries

Batteries are not simply a power source, but also a fundamental element of future innovations. On the strength of technological advances in batteries, the anticipated age of electric vehicles is drawing nearer. Samsung SDI is making ceaseless efforts to realize technological advances that will enable dynamic yet safe driving in electric vehicles, in addition to allowing drivers to cover greater distances. We are realizing our vision in the eco-friendly clean energy solution sector by concentrating on the development of batteries for low-carbon vehicles. With the development of high-efficiency and high-capacity lithium ion secondary batteries and their provision to automakers worldwide, emissions of CO_2 and various air pollutants from existing motor vehicles are being minimized. Sustainability is being actualized through products created not only for economic efficiency but also eco-friendliness.

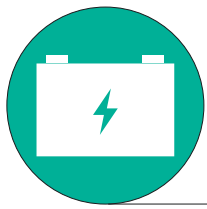
Seh Woong Jeong, Executive Vice President

Keeping pace with the continuous growth of the electric vehicle market, we are committed to realizing a profitable division through 'efficiency innovation and solid management.' Toward this end, we are enhancing development competitiveness and placing greater emphasis on securing market competitiveness by applying manufacturing productivity innovation and strengthening the management structure.

APPLICATION



Electric Vehicles (EV) - It is critical for EV batteries to have high energy density within a given amount of space. By applying high-capacity materials with optimum lifetime performance and designing optimized battery components, Samsung SDI is driving innovation for extended EV mileage.



Plug-in Hybrid Electric Vehicles (PHEV) - Batteries for PHEV demand a balance between the energy density required for electric-mode driving and output density able to support an engine. Samsung SDI is endeavoring to realize optimal harmony through competitiveness in advanced battery development.

Hybrid Electric Vehicles (HEV) - In response to recent trends and growing popularity of electric vehicles, we are securing higher investment efficiency to provide solutions for improved fuel economy and automotive performance.

Micro/Mild HEV - We are providing mid-range solutions aimed at improving fuel economy and automotive performance with only small investments.

❖ Innovation for automotive battery performance

Samsung SDI is making mid- to long-term efforts to improve cathode and anode materials, the core of the automotive battery. To raise our battery materials supply competitiveness, Samsung SDI and POSCO are investing 57.5 billion KRW in a planned joint venture producing cathode materials in Mejillones, located in northern Chile. As for the anode materials that determine the lifetime of secondary batteries, we are successfully commercializing a patented process for combining nano-sized silicon with graphite. Including the development of anode materials befitting stable high-capacity batteries, Samsung SDI is continuously striving for energy innovations through research and development on stabilization of silicon structures, which are able to dramatically improve energy density.

ESS (Energy storage systems)

Samsung SDI is leading the global market on the strength of environmentally-friendly energy solutions and lithium-ion energy storage devices for the future. We are ensuring the stability of power grids, and through our leading-edge technology with the capacity to improve the quality of electrical energy, we are providing optimization solutions in accordance with the particular needs and environments of customers.

Samsung SDI's activities in the ESS business have been going strong since 2011. Within three years, we reached the number one rank in the industry, thanks to achieving the world's leading Small-sized Li-ion battery stability. Applying the same batteries to ESS as those supplied to electric vehicles, we were able to ensure ESS quality and reliability. Not only that, but based on solutions optimized for specific countries, we were also able to pioneer markets faster than other competitors in the European power/residential market, the American power/commercial market, the Japanese residential market, and the Korean power/industrial market.

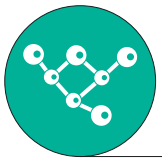
Seh Woong Jeong, Executive Vice President

In 2017, having produced significant results through reduced process losses and improved efficiency of facilities, the ESS business succeeded in achieving profitability. We are making radical changes in our working methods and structures so that our business division can produce solid results, no matter what the external circumstances may be.

APPLICATION

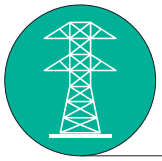
Electric power solutions - The division contributes to ensuring the stability of power grids in power supply systems, including power generation, transmission, and distribution, as well as in standardization in renewable energy power generation.

Commercial solutions - By securing stability in plant machinery and power operations, we are raising self-consumption usage. Increasing power operation stability and self-consumption usage helps to reduce daytime maximum loads in office buildings such as commercial offices, public institutions, schools, and hospitals.



UPS · UES solutions - Ensuring reliable power quality and continuity can prevent operational gaps in data centers, achieving minimized total power consumption and reduced capital investments.

Residential solutions - Linking households to solar power generation systems makes eco-friendly energy available anytime, 24 hours a day, resulting in higher energy self-consumption rates and lower power bills.



Communication solutions - Offering not only lighter weight, smaller volume, and high energy density, but also improved lifetime performance, the use of lithium batteries has brought about innovative savings in maintenance costs.

❖ Hawaii Photovoltaic Power Project

Applying Samsung SDI's 94Ah battery cell, we are involved in plans to install a 100MWh ESS in Kauai, the fourth-largest island in the U.S. state of Hawaii. It will be Hawaii's largest energy project, aiming to facilitate the supply of power to the islands. At the center of a tourism industry that leverages natural resources, Hawaii consists of 10 large and 100 small islands. The nature of the terrain makes the process of supplying power less than smooth. As such, there is greater demand for renewable energy in Hawaii than anywhere else in the U.S., and the state is strongly backing a clean energy policy to provide clean and stable energy at lower cost. This project is expected to slash power supply costs for all of Kauai, reducing annual consumption of diesel fuel by 3.7 million gallons and enabling low power generation costs of 11 cents per kWh, cheaper than diesel. The project also accounts for 11% of all electricity used in Kauai. In addition to daytime hours, it enables constant power use for up to 5 hours.

* Hawaii Clean Energy Initiative: 70% of renewable power generation targets achieved by 2030; 100% by 2045

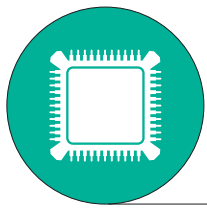
Electronic materials

'Invisible force of the digital revolution'
Samsung SDI is creating a more convenient digital world not only for the future of TVs, semiconductors, and smartphones, but also for the future of next-generation markets, including OLED displays and secondary batteries.
The Electronic Materials Division develops and sells materials used in the semiconductor, display, and next-generation energy sectors.
While fortifying our market dominance in the existing market for materials used in semiconductors and LCD displays, we are also making continuous efforts to secure a market leadership position in next-generation advanced materials, including OLED materials and separation membranes for secondary batteries.

Chang Lyong Song, Executive Vice President

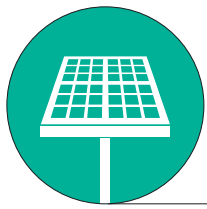
In 2017, with the stabilization of the Wuxi corporation in China and quality enhancement of the SOH (spin-on hardmask) material, we put great efforts into selection and concentration towards securing a solid profit structure.
In 2018, we plan to place greater emphasis on strengthening overall business competitiveness through the expansion of new products and structural improvements, focusing on the exploration of next-generation products and new items for future growth engines.

APPLICATION



Patterning materials (including SOH, SOD, and slurry) are applied in the formation of semiconductor wafer patterns, while packaging material (epoxy molding compound, EMC) is applied to protect chips from the external environment.

Sold in the form of films or base materials, Samsung SDI's electronic materials are chiefly used in displays panels such as LCDs and OLEDs. The materials are used for films, such as polarizing film (POL) and anisotropic conductive film (ACF), as well as process materials for use in organic light emitting diodes (OLEDs) and Color PR (color photo-resist) layers.



Photovoltaic (PV) paste is a highly-viscous conductive material used to form the electrodes of solar cells, and also used as a separation membrane that serves as an interlayer to prevent short-circuiting between the cathode and anode of a secondary battery; thus, it is a core material that determines stability.

❖ Facilities Technology Group, a Learning Workplace

In the Semiconductor Device Facilities Technology Group of the Electronic Materials Division, 91% of the staff possess job-related certifications. Work-life balance is a priority that is conducive to staff self-development. This enhances work capacity and performance, creating a virtuous cycle environment that has a naturally positive effect on organizational culture. To leverage the attributes of the Facilities Technology Group, all members are encouraged to acquire plant engineering and maintenance certification, a goal achieved by 91% of its staff. This atmosphere led its members to acquire Master Craftsman certification and Meister certification, with the number Master Craftsman certifications doubling over 2015. About 19% of its employees were able to advance into Meister.

Corporate governance

Activities of the Board of Directors

The Board of Directors at Samsung SDI deliberates and makes decisions on matters specified in the Articles of Incorporation, delegated from the General Meeting, and important matters related to basic policies on our management and the execution of business operations. The Board meets on a regular quarterly basis and may have frequent ad-hoc meetings when deemed necessary. In 2017, a total of eight Board meetings were held, and 22 items were addressed. Board resolutions are made through majority consensus, with a majority of directors being present. Directors with conflicts of interest are not allowed to exercise their voting rights. In addition, all directors or part thereof are allowed to take part in resolutions without physically attending, by means of remote electronic communications using voice messages transmitted to all directors simultaneously. The directors' term of office is 3 years, and the chairman is selected from among the directors by a resolution of the Board. Outside directors may also be appointed as the chairman.

Composition of the Board of Directors

The Board of Directors at Samsung SDI consists of a total of seven directors, including three executive directors and four outside directors, as of the end of March 2018. Directors with expertise in various areas including business, economics, law, or related technologies are appointed in accordance with the relevant rules. Candidates for executive and outside directors are selected by the Board and by the outside Director Nominations Committee, respectively, before final approval at the General Meeting.

Category	Name	Field	Major experience
Executive Director	Young Hyun Jun	-	CEO and President
	Young Noh Gwon	-	Leader of Management Support Team
	Chang Lyong Song	-	Leader of Electronic Material Business Division
Outside Director	Sung Jae Kim	Business Administration	Business Administration Professor at Hankuk University of Foreign Studies
	Serck Joo Hong	Finance	President of Chohung Bank
	Ran Do Kim	Customer	Consumer Science Professor at the College of Human Ecology, Seoul National University
	Jai Hie Kim	Technology	Electrical & Electronic Engineering Professor at the College of Engineering, Yonsei University

Subcommittees of the Board of Directors

The Board of Samsung SDI operates five subcommittees: Management Committee, Audit Committee, Internal Transactions Committee, Outside Director Nominations Committee, and Compensation Committee. To promote specialized and effective decision-making, some of the Board's responsibilities are delegated to committees for thorough examination of the issues by relevant experts and authorities.

Subcommittee	Members	Career Highlights
Management Committee	Three executive directors	Deliberate and make decisions on matters commissioned by the Board
Audit Committee	Four outside directors	Perform audits on business operations and accounting management
Internal Transaction Committee	Four outside directors	Ensure transparency and compliance regarding internal transactions and fair trade
Outside Director Nominations Committee	Three executive directors, four outside directors	Nominate candidates for outside director
Compensation Committee	One executive director and two outside directors	Deliberate the ceiling of compensation for registered directors

Board of Directors Independence

Independence of Outside Directors

All outside directors maintain independence from major shareholders and management. Independence of the Board is guaranteed based on standards for exclusion of qualification of outside directors in accordance with Article 382 of the Commercial Law.

Grounds for disqualification of outside directors

❶ Directors, executives, and employees who are engaged in regular business with the company, or directors, auditors, executives, and employees who have been engaged in regular business with the company within the past two years
❷ In cases where the largest shareholder is an individual, a spouse, lineal ascendant, or lineal descendant of that individual
❸ In cases where the largest shareholder is a corporation, any director, auditor, executive or employee of that corporation
❹ Spouses, lineal ascendants, and lineal descendants of directors, auditors, and executives
❺ Directors, auditors, executives, and employees of a parent or subsidiary company of the company
❻ Directors, auditors, executives, and employees of a corporation having a significant interest in the company, such as business relations with the said company
❼ Directors, auditors, executives and employees of another corporation for which directors, executives, and employees of the company work as directors or executives

Transparency of Elected Directors

In order to guarantee fairness and independence in appointing the Board, nominees are selected by the Outside Director Nominations Committee when outside directors are being appointed. Directors are appointed following approval from the General Meeting. The Board consists of a total of seven members. Of these, outside directors make up more than half of the seats.

Independence of the Audit Committee

The Board of Samsung SDI operates the Audit Committee under Article 542(11) and Article 542(12) of the Korean Commercial Act and guarantees its operational independence by forming the committee solely of outside directors.

Expertise of Outside Directors

Samsung SDI appoints external consultants with diverse knowledge and experience in business, economics, and the electronics and battery industries as outside directors. So as to continuously strengthen and leverage their expertise, board members can also inspect domestic and overseas management sites and receive status briefings. Assistance is provided for them to perform their professional duties through the activities of the board's subcommittees.

Board Activities and Compensation

Yearly Board Activities

In 2017, the Board held six regular board meetings and two ad-hoc board meetings and processed a total of 22 items and 7 reports, including approval of partial sales of treasury stocks, execution of external donations, and investment in the manufacture of secondary batteries at the Cheonan Production Site.

Performance Evaluation and Compensation of the Board

Samsung SDI annually evaluates directors based on their business expertise, technological expertise, and active board participation, and the results are discussed in board meetings. The remuneration of the board is paid within the limits approved at the General Meeting and composed of a base salary based on their position and performance-based bonuses. Performance factors include econometric indicators such as revenue, net income, and stock prices, as well as qualitative indicators related to environmental and social outcomes in areas such as safety, labor relations, insolvency, corruption, security, and compliance. In 2017, the amount of 23 billion KRW was approved at the General Meeting, while the actual amount paid to directors stood at 4.9 billion KRW.

Category	Unit	2015	2016	2017
Net payment	100 million KRW	48	47	49
Total board remuneration (Executive directors)	1 million KRW	4,413	4,257	4,493
Total board remuneration (Outside directors and auditors)	1 million KRW	404	419	402
Average remuneration per person (Executive directors)	1 million KRW	1,103	710	899
Average remuneration per person (Outside directors and auditors)	1 million KRW	80	84	80

Sustainability Management System

Sustainability Management System

Since 2004, Samsung SDI has had a Sustainability Management (SM) Steering Committee and SM Office to facilitate systematic sustainable management. The CEO and executives serve on the SM Steering Committee to share key issues about sustainable management, targets, and directions for implementation before reviewing and approving major agenda items, including the Sustainability Report. Through this, risks and opportunity factors within overall sustainable management are analyzed, including economic, social, and environmental spheres, and enterprise-wide directionality is proposed. The SM Office takes charge of conducting sustainable management by monitoring key issues and risks, running the SM Steering Committee, and implementing planning. It endeavors to attain corporate growth and improve corporate value through diversified sustainable management activities based on collaboration with personnel in charge of SM in each division.

Selected as DJSI World 13 times

MEMBER OF Dow Jones Sustainability Indices In Collaboration with RobecoSAM

Samsung SDI was listed thirteenth in the 2017 Dow Jones Sustainability World Index, one of the Dow Jones Sustainability Indexes (DJSI) selected by Dow Jones, the world's largest financial information service provider. Such good results reflect our proactive response to new risks in the sustainable management sector, winning recognition for strong global competitiveness achieved through steady activity.

Selected for the Global 100: Most Sustainable Corporations

GLOBAL100

Samsung SDI was named as one of the Global 100: Most Sustainable Corporations, a global ranking list that started in 2005 and is announced annually at the Davos Forum in Switzerland. The ranking evaluates core factors like energy use and carbon, waste, and clean air emissions drawing from data released in public documents such as financial highlights or sustainability reports. The list also considers overall factors like spending on innovation, responsible payment of taxes, executive pay, partners, safety, and turnover.

Vision and strategy

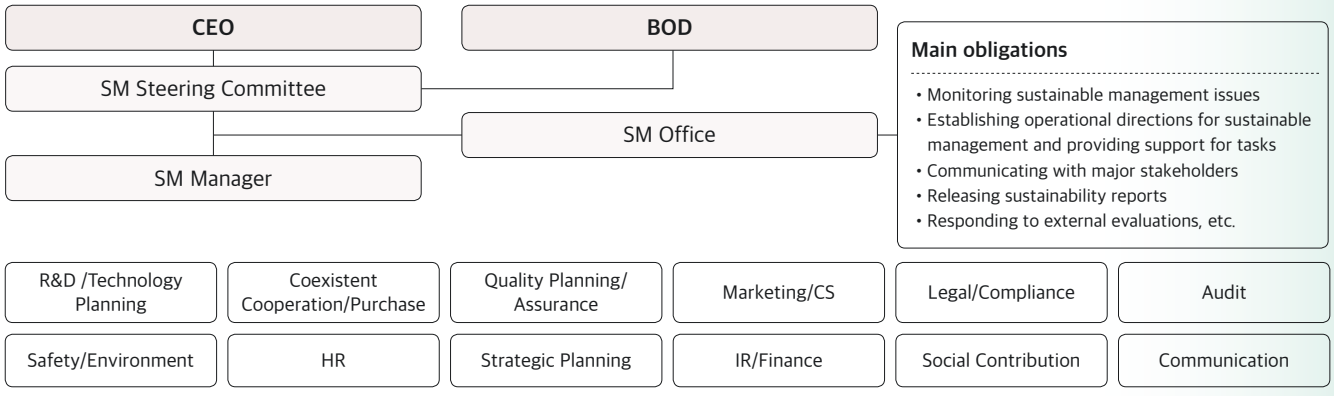
Samsung SDI proactively responds to changing sustainability issues. We identify important issues associated with various stakeholders in each area and performs sustainable management in light of them. Toward this end, we present a vision for sustainable management to facilitate growth as a business able to contribute to human society, through sustainable development based on strong leadership in the economic, environmental, and social spheres.

SUSTAINABLE DEVELOPMENT INNOVATOR

Contributing to human society through sustainable development based on strong leadership in the economic, environmental, and social spheres.

Economy Sustainable Growth	**Sustainable growth** Realization of sustainable growth and creation of profits based on customer satisfaction
Society Coexistent Partnership	**Coexistent partnership for mutual prosperity** Balanced reliable partnerships that can benefit various stakeholders
Environment Eco-Value Creation	**Eco-value creation of environmental value** Eco-friendly creation of greater value throughout the processes associated with products and services, contributing to enhanced quality of life

SM Operational System



Risk management

At a time of increasing uncertainty within a rapidly changing business environment, there is a growing need for enhanced proactive identification of risk and prompt follow-up action. Against this backdrop, Samsung SDI endeavors to take comprehensive and systematic measures in response to potential risk factors not only in the financial aspects of business operations, but also in non-financial terms. In each division, sessions are led by the CEO to check risk response and improvement activities. Critical business risks are submitted to the Board as agenda items for speedy management decision-making.

Operational risks

Samsung SDI strives to define factors influencing overall business operations, such as public policy, regulation, competition, and changing market trends, and works to identify and eliminate risks throughout the entire value chain process, ranging from investment to product development and production all the way to sales.

Raw material supply and demand management risks

With the recent surge in demand for electric vehicle (EV) batteries, the prices of raw materials for secondary battery cathodes have been on the rise, making supply and demand of raw materials a critical pending issue. To ensure a stable supply of primary raw materials, Samsung SDI is reinforcing its efforts to establish strategic cooperative relationships with major supply chain management (SCM) companies, at the same time aiming during the product planning stage to reduce consumption of raw materials, in accordance with the challenges of supply and demand.

Financial risk

In the area of financial risk, besides liquidity risk, Samsung SDI also considers other risks that can occur within the financial sector, including exchange rates, commodity prices, and credit.

Tax risks

Samsung SDI places the highest priority on compliance with each country's tax laws, faithful tax declarations, and fulfillment of tax obligations. We assess various aspects of our tax risks, continuously monitoring and reflecting in our own tax policy not only domestic and foreign tax laws, but also policies of national and regional of tax authorities, particularly regulations for preventing tax avoidance and evasion. Furthermore, we prevent tax-related risks through rigorous checks on performance functions and risks borne for each specific global business site and trading company, as well as operating in accordance with transfer pricing policy on assets used.

Foreign exchange risk

Being equipped with a global supply chain management system and conducting business with diverse customers around the world, Samsung SDI is exposed to foreign exchange risk. Amid rising uncertainties within the external business environment, we devise various ways to minimize and avoid foreign exchange risk arising from business activities.

Non-financial risks

Besides operational risks and financial risks, Samsung SDI also prepares for non-financial risks in relation to such areas as human rights, safety accidents, environmental issues, compliance, and ethics.

Supply chain risks

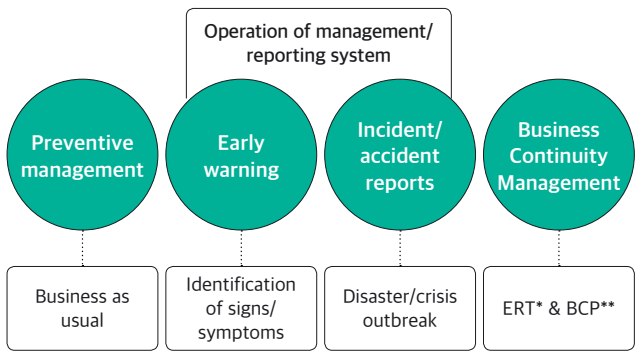
Samsung SDI operates production strongholds in various places at home and abroad, with partner companies located in regions including China and Southeast Asia. To fulfill and manage our social responsibilities within the supply chain, we have put in place the S-Partner Certification System, monitoring and improving risks of our partner companies in the areas of labor, ethics, environment, and safety & health.

Workplace safety risks

Preventive management of safety and disaster risks in factories is considered an essential mandatory activity for the purpose of sustainable business. Since declaring 'Safety as the #1 Management Principle' at home and abroad in 2016, Samsung SDI has carried out Safety culture level up activity and safety culture evaluation for the adoption of proper safety culture while doing our utmost to conduct preventive activities by operating safety check teams at business work sites.

Management/Reporting System

Business Continuity Management (BCM) System



*ERT: Emergency Response Team
**BCP: Business Continuity Plan

Compliance

Compliance Organization

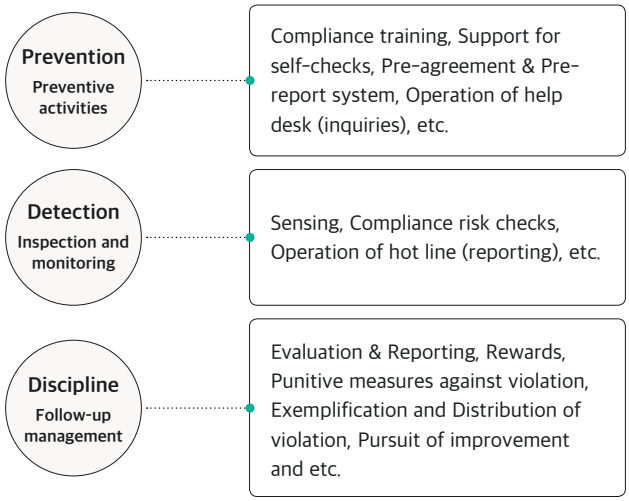
Samsung SDI has compliance support teams to handle compliance and ethical management. To facilitate effective implementation of compliance management, compliance leaders are appointed by a body made up of executives and compliance managers, and they serve as a communication channel between field departments and compliance support teams. Compliance managers support compliance programs and reflect organizational performance in evaluations on pertinent ethical management activities for the interest of stronger, more consistent ethical management.

In 2017, we established over 100 compliance practice bodies at home and abroad, appointed compliance managers in each organization, provided compliance newsletters intended to enhance the roles and competencies of pertinent personnel, shared information on legislation and amendments, and offered diverse training opportunities on related issues.

Compliance operations and systems

For the purpose of compliance with various laws and regulations by all employees, Samsung SDI operates compliance programs that provide prior and ongoing education and it also performs control and supervision to prevent and minimize risks caused by legislative or regulatory violations. In accordance with this system, which ranges from preventive compliance activities, to compliance checks and monitoring, to follow-up management, all employees are entitled to optimum compliance support regarding legal issues that may arise in the course of business, regardless of when or where. The system also enhances the convenience of diverse compliance activities like self-checks, pre-agreements, and pre-reports.

Process of compliance activities



Compliance support for overseas corporations

Samsung SDI provides support to new overseas corporations in establishing compliance operation systems so that compliance management activities can be conducted at the same level as other overseas corporations.

Also compliance systems are operated in English and Chinese to facilitate overseas staff's compliance activities and convenient acquisition of pertinent information.

Compliance training

Samsung SDI is reinforcing compliance training to raise employee awareness. In 2017, it adopted differentiated subject-specific operational methods with respect to training, scale, and issues, and improved training materials in an effort to respond promptly to the rapidly changing legal environment and increase the effectiveness of compliance education. In the meantime, by disseminating key compliance issues, including legislation and amendments, in the form of small-scale training sessions, trainees' understanding of the content was enhanced and enabled to spread within departments well. The use of visual media was expanded and employee feedback on training effectiveness was gathered and implemented.

Compliance inspections

As social and legislative issues related to fair trade intensify, we enhance compliance inspections. Major compliance risks related to Samsung SDI were selected to conduct interviews and questionnaires of compliance managers in each organization for the purpose of inspection and management. Depending on the inspection issue, inspections were conducted via diversified channels including in writing, oral interviews, and system and site visits. The results were reflected in compliance training, updates to internal regulations and guidelines, and business process improvements.

Major lawsuits

An investigation into violations of the Competition Act was conducted due to suspected price collusion on secondary batteries in the U.S. and the EU, but the case was concluded as of the end of 2016. An investigation into collusion on the prices of CRTs in the U.S., EU, Japan, and Korea had been underway since 2011, but penalties were imposed by the pertinent authorities before its conclusion in 2017. There are no other pending cases subject to the imposition of penalties and regulations with regard to violation of laws and regulations.

CASE

Provision of compliance training to partner companies

Partner companies training

Samsung SDI provides annual compliance training programs to partner company's employees who are major stakeholders, in order to enhance ethical management capabilities and foster a fair trade environment. In 2017, a two-day training program was offered to 27 partner companies, covering compliance management system, contracts, the Subcontracting Act, and intellectual property rights, including trade secrets and patents.

Training on the Improper Solicitation and Graft Act

Improper Solicitation and Graft Act training

Results of site inspections related to the Improper Solicitation and Graft Act are shared, and special training for legal compliance is provided for pertinent employees.

To enhance employee understanding about standards of judgment, training on the specifics of the Improper Solicitation and Graft Act and case studies is provided to members of relevant departments who are in contact with public officials and who handle expense accounting. Changes in the legislative and regulatory environment are monitored continuously, with relevant information being quickly disseminated. When compliance issues occur, we are committed to continuing our efforts to prevent legal violations through quick internal dissemination of information, monitoring and checking, and complementary training.

Stakeholder Participation & Materiality Assessment

Stakeholder Participation & Communication

Samsung SDI defines stakeholders as customers, partners, shareholders/investors, employees, the government, external organizations, and local communities that directly or indirectly influence and are influenced by our management. We operate communication channels for different stakeholders and reflects their interests and expectations in the following year's plan according to business impacts. In the meantime, we transparently discloses our business plan through the Sustainability Report.

Customer

- Customer visits
- QBR (Quarterly Business Review) meeting
- QTR (Quarterly Technical Review) meeting
- Website operation

Suppliers

- Purchase portal system
- Organization of SSP (Samsung SDI Partner's Association)
- Operation of partner exchange meetings
- Visits to partners by CEOs and senior executives

Employees

- Labor-Management Council
- Open Counseling Center
- Management Briefing Session
- Satisfaction Survey
- Operation of Culture Leader
- SDI Talk
- Publication of newsletters

Industry associations, universities & research centers

- Activities conducted by members of associations and societies including Korea Battery Industry Association
- R&D (Open innovation)
- Implementation of joint cooperation programs

Local communities & civic organizations

- Operation of Local Community Council
- Social contribution activities
- Sisterhood

Government

- Participation in governmental projects
- Operation of joint cooperative programs
- Organization of conferences and meetings

Shareholders and investors

- General Meeting
- IR earnings conference call
- IR road show
- IR conference attendance
- Public disclosure
- IR website
- IR contact
- Ad hoc meetings

Materiality Assessment

In order to select the issues regarding achievements of sustainable management to be reported, Samsung SDI conducts materiality assessments. Issues deemed important were reported in Material Issues in 2017, while high material issues in the previous year and other issues were reported in Previous Issue in 2016 and in Sustainable Management Overview, respectively.

Stakeholder Interest

This measures the degree of importance of each issue vis-a-vis economic, environmental, and social achievements and reputation of the organization.

International Standard

Reflection of guidelines for global sustainable management and indicators
- GRI Standards, DJSI, ISO 26000, SDGs

Media Analysis

Reflection of the issues exposed to the external media
- Period: Jan. 1, 2017 ~ Dec. 31, 2017
- Search media: Daily newspapers, economic newspapers, local newspapers, broadcasters, etc.
- Number of effective news articles: 1,042

Opinion survey on strategic impact

Survey of internal and external stakeholders on the perception of strategic impact of each issue
- Composition of strategic impacts
- The size of social, environmental, and financial risks that might occur in the event of a failure of appropriate management
- Assessment on compliance with the long-term direction of growth assumed by Samsung SDI

Impacts on Samsung SDI

Confirmation on how each issue influences stakeholders' evaluation and investment decisions about Samsung SDI

Major Internal Pending Issues

Analyses of major pending issues regarding the economy, society, and environment that Samsung SDI finds internally important
- CEO Message
- 2016 Sustainability Report
- 2017 Management Strategy
- 2018 Management Strategy

Industrial Analyses

Analyses of high material issues focused on in the reports by excellent global sustainable management companies
- Analyses of high material issues focused on in sustainability reports by eight companies from the same industry and materiality assessment

Opinion Survey on Financial Impacts

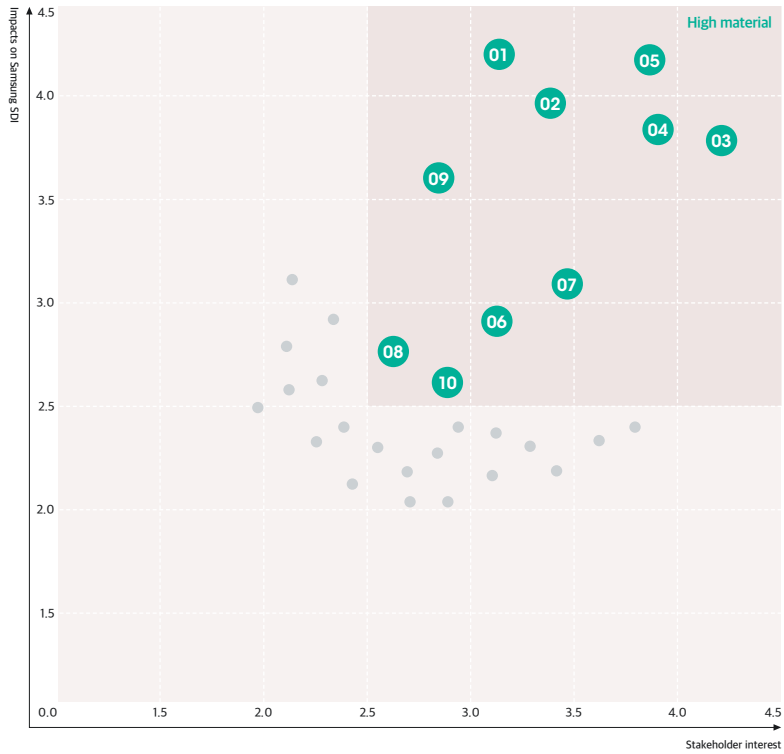
Questionnaire survey of internal and external stakeholders on the perceptions of financial impacts of each issue
- Composition of financial impacts
- Assessment aiming to explore whether costs will occur or increase in the case of a failure of appropriate management of each issue
- Materiality assessment of the effects of each issue on corporate sales

Results of Materiality Assessment

Based on the results of a materiality assessment of sustainable management issues of Samsung SDI, 10 High Material Issues were selected in consideration of social interest and business impacts for detailed description in the report. In Medium & Low Material Issues, information generally required by international guidelines and standards was additionally provided.

MEDIUM & LOW MATERIAL ISSUE

- Energy saving and use of renewable energy
- Implementation of work-life balance
- Compliance with environmental laws and regulations and responses to regulations
- Reduction in emission of contaminants and recycling
- Development and retention of global talent
- Management of customer relationship
- Establishment of a sound organizational culture
- Selection and evaluation of fair and transparent supply chain management
- Development of environmentally friendly products and services
- Compliance with laws and global anti-corruption principles
- Improvement of resource efficiency
- Enhancement of welfare benefits
- Reduction in the lifecycle environmental impact
- Management of air pollutants (greenhouse gas emissions, etc.)
- Response to conflict minerals
- Water resource management
- Proliferation of culture for shared growth and mutual growth
- Contribution to advancing the local community
- Proliferation of a fair transaction culture
- Establishment of sound corporate governance
- Facilitation of in-house communication



Analyses of financial/non-financial correlation high material issues

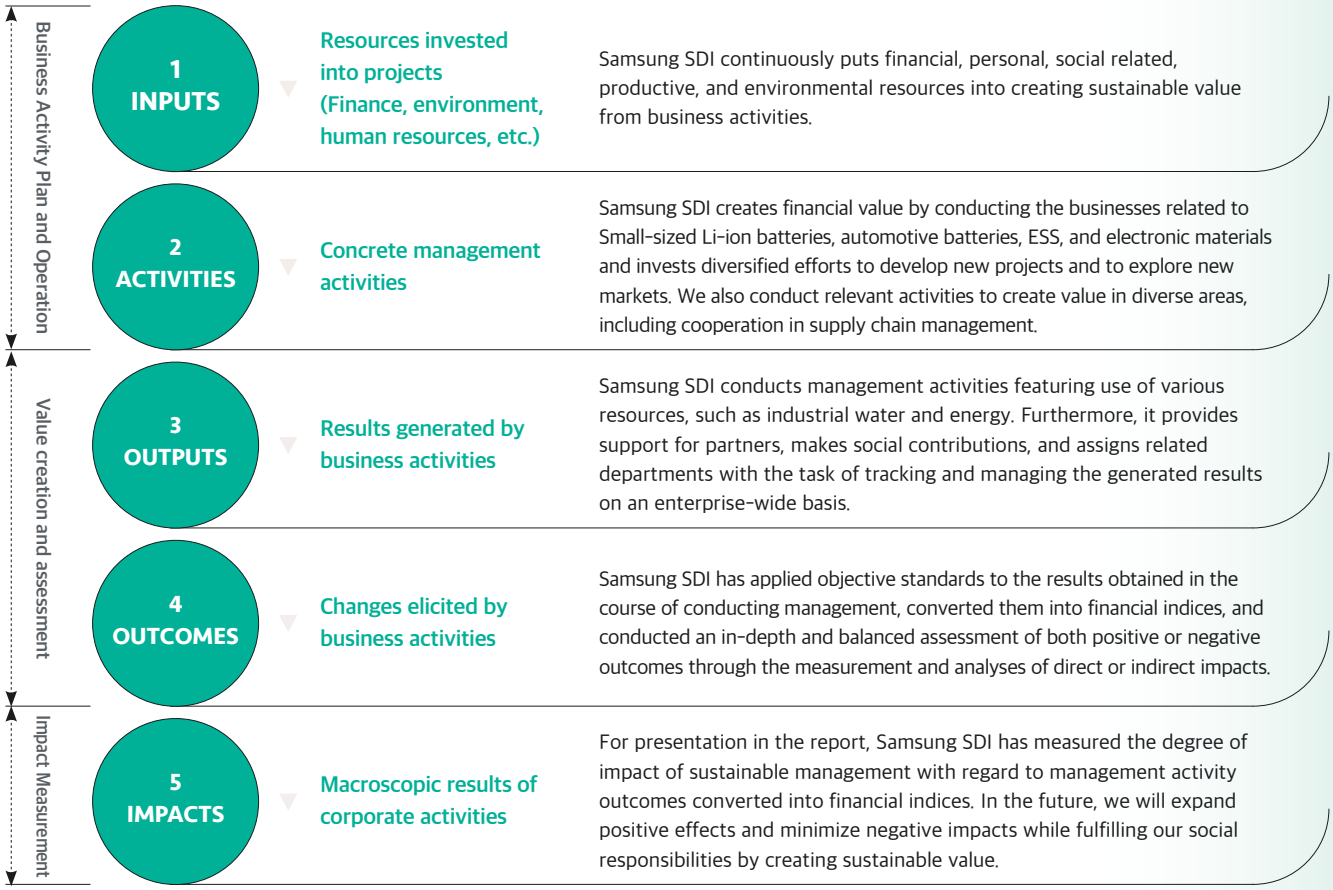
Rank	Issue name	Correlation with financial achievements	Correlation with non-financial achievements	Report page
01	Enhancement of R&D competence	Maximization of sales and profits through the improvement in quality and reduction in costs based on technological development	R&D competence plays an essential role in leading the market, and excellent technology eventually contributes to inducing consistent business activities by realizing an environmentally-friendly society	32-41
02	Acquisition of a future growth engine	Response to the future market trends and maintenance of competitiveness for the sake of creating a consistent economic value	Response to the changing markets and consistent stabilization activities for the enhancement of trust relationship with stakeholders	32-41
03	Achievement of stable management	Stable profit creation that lays the foundation for purchase and investment of further projects	Enhancement of trust relationships with stakeholders, including partners and investors, and the improvement of corporate reputation and brand value	32-41
04	Exploration of new markets	Exploration of new markets leads to increased sales based on expanded sales channels and the generation of impacts on corporate growth	Enhancement of competitiveness for corporate existence through the expansion of business areas and the improvement of corporate reputation	32-41
05	Enhancement of quality and stability	The demand for safe high-quality products leads to the pursuit of increased sales and a reduction in the costs associated with responding to customer claims	Provision of products and realization of credibility to improve satisfaction and to ensure business continuity	44-47
06	Enhancement of handling and management of hazardous substance	Prevention of financial losses, including handling expenses caused by leaks of hazardous chemicals	Environmental issues caused by leaks of hazardous chemicals and threats posed to employees and local residents	48-51
07	Safety and healthcare in the workplace	Handling management costs caused by accidents in establishments and contagious diseases	Improvement of in-house satisfaction and productivity through adequate management of employee health and healthcare	48-51
08	Employee competence development	Possible increase in sales through the acquisition and development of excellent human resources	Enhancement of motivation for self-development through support of the efforts to improve employees' competence and stronger competitiveness in the global market	52-55
09	Issue responses to supply and demand for raw materials	Reduction in the costs associated with purchasing raw materials through the use of recycled materials	Creation of environmental value through resource conservation and response to global environmental regulations	56-59
10	Support for sustainability of supply chain management	Expansion of product sales based on an improved quality of parts through education on and support provided to the supply chain management	Development of the national economy based on corporate reputation, domestically and internationally, and enhancing competitiveness and shared growth	60-67

SDI Impact Valuation Management

Measurement of Impacts on Sustainable Management of SDI

In order to thoroughly assess the actual value and impacts of management activities, Samsung SDI measures not only the economic value generated by management activities, but also the positive and negative external effects of social and environmental factors. For this assessment, and before publicizing the results of the report, we have examined and converted the actual impact value based on relevant domestic and international laws and regulations, as well as obtained objective research findings.

Impact Measurement Framework



❶ INPUT This means that financial and non-financial assets are invested into business and are defined by six aspects (financial, productive, intellectual, personal, social related, and natural) suggested in IIRC as basic factors.

❷ ACTIVITY This includes direct and indirect management activities based on the six aforementioned aspects and confirms positive and negative results arising from the development and sale of products (services), cooperation within the supply chain management, establishment of industrial infrastructure, etc., all of which influence Samsung SDI and society on the whole.

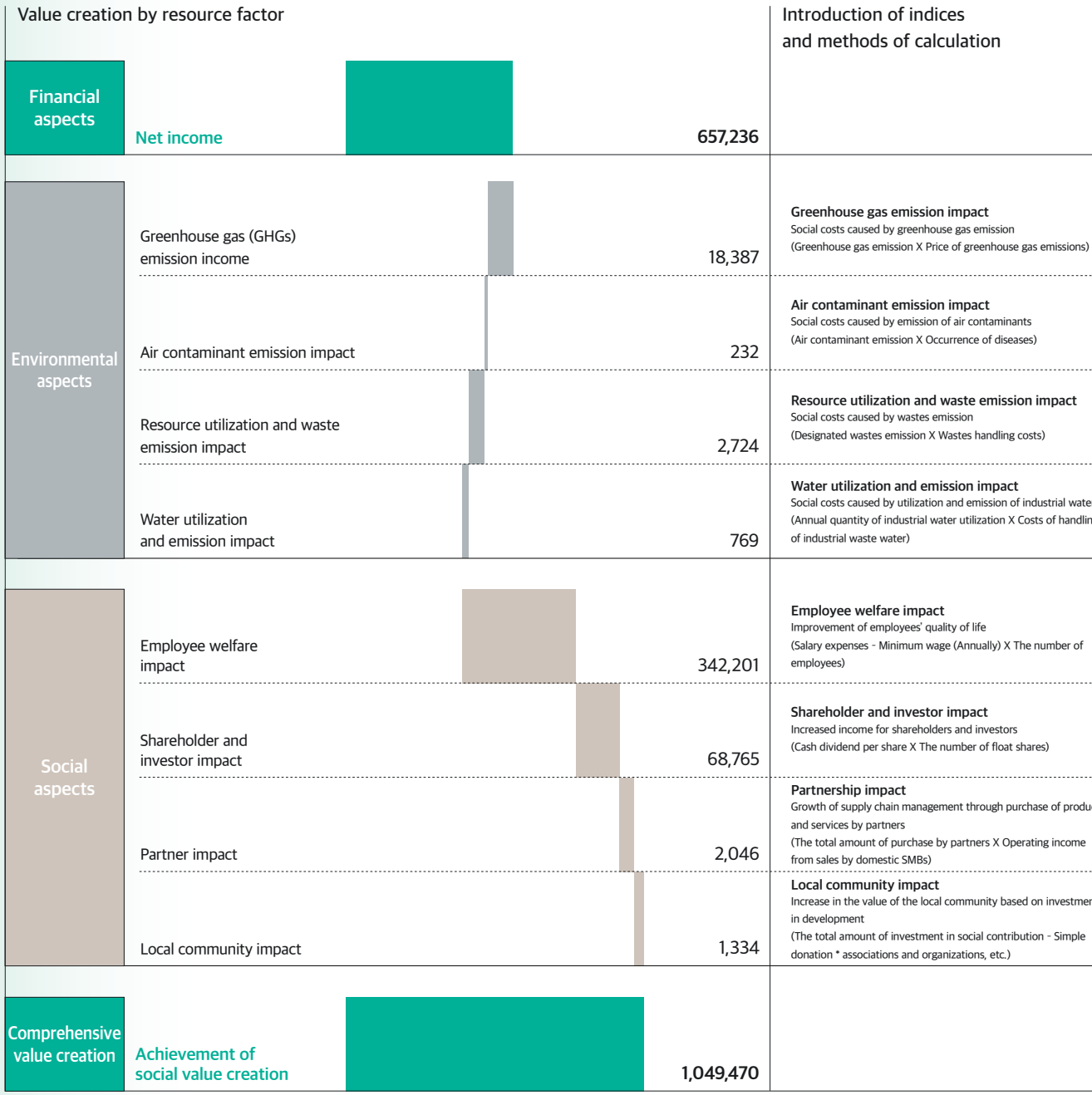
❸ OUTPUTS The results clarify important positive and negative factors that influence Samsung SDI and society with regard to social and environmental aspects caused by the development and sale of products (service).

❹ OUTCOMES The results clarify important positive and negative factors that influence Samsung SDI and society with regard to social and environmental aspects caused by the development and sale of products (service).

❺ IMPACTS Based on quantitative analysis of the data, the results suggest that the actual value reflects the weighted value (which considers social issues and importance).

Integrated Value Creation

Samsung SDI collects and analyzes quantitative data on annual achievements regarding the fulfillment of developmental targets for long-term sustainable management. Before making detailed suggestions, we consider both positive and negative results generated from management activities based on the resources put into business projects by citing the figures from global standards and legal standards before detailed suggestion of related sources. The report provides a comprehensive assessment of both positive and negative impacts of value generation and consumption and reports them as graphs. In the future, specific effort will be made to formulate mid-to-long-term improvement tasks and to objectively report the figures regarding specific areas that have yet to be converted due to current limited social consensus and technological restrictions.



(Period: January 2017 ~ December 31, 2017, Unit: 1 million KRW)

SDGs Compass

Sustainable Development Goals

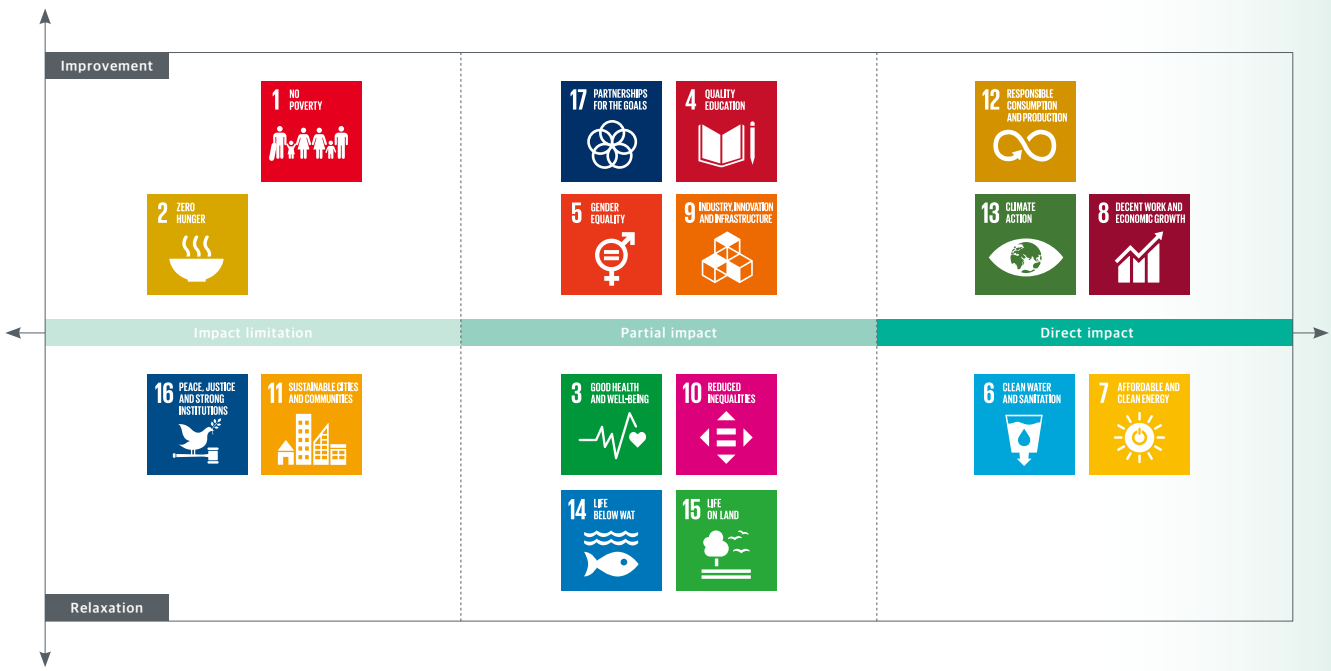
Sustainable Development Goals (SDGs) suggested in 'The 2030 Agenda for Sustainable Development' by the U.N. that came into effect in early 2016 aim to advance sustainability and equality in the world. 17 universal goals focus on eradication of poverty, protection of the Earth, and promotion of peace and prosperity of all people. The government, corporations, citizens, researchers, and various stakeholders in the private sector will make continuous efforts to completely fulfill the aforementioned goals. As a global company taking the initiative in realizing social value, Samsung SDI is proactively taking part in attaining sustainable development goals for society so as to develop innovative energy solutions that can save the Earth's environment and enhance environmental friendliness of electronic materials.

Analyses on Correlations between Samsung SDI and 17 SDGs

Samsung SDI reviews linkages with SDGs with regard to the fulfillment of enterprise-wide sustainable management strategies, while reflecting the outcome in mid-to-long-term tasks. In particular, we analyze diverse social impacts caused by business activities and make more proactive investments and more detailed mid-to-long-term plans focusing on the areas expected to produce direct and positive effects generated by corporate activities of social value.

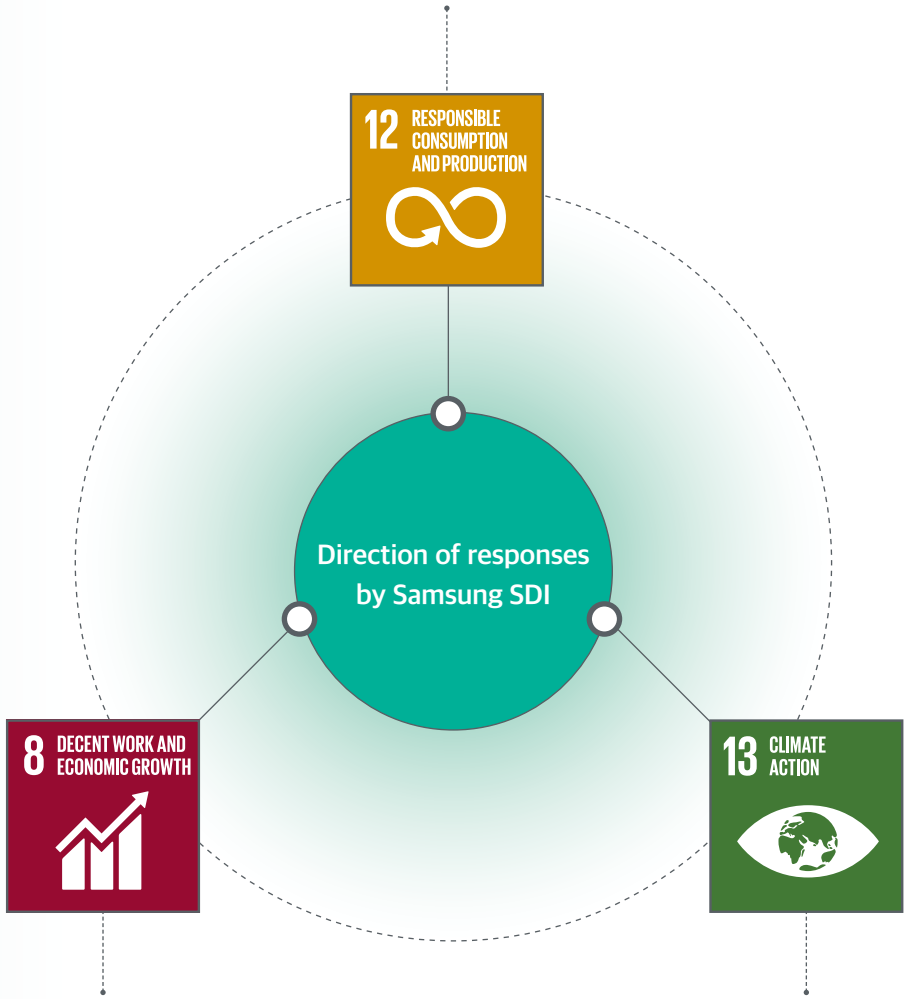
Definition by Task

Goal 1: No Poverty
Goal 2: Zero Hunger
Goal 3: Good Health and Well-Being for People
Goal 4: Quality Education
Goal 5: Gender Equality
Goal 6: Clean Water and Sanitation
Goal 7: Affordable and Clean Energy
Goal 8: Decent Work and Economic Growth
Goal 9: Industry, Innovation, and Infrastructure
Goal 10: Reducing Inequalities
Goal 11: Sustainable Cities and Communities
Goal 12: Responsible Consumption and Production
Goal 13: Climate Action
Goal 14: Life Below Water
Goal 15: Life on Land
Goal 16: Peace, Justice, and Strong Institutions
Goal 17: Partnerships for the Goals



Samsung SDI's Activities to Improve Social Impacts

Samsung SDI is reviewing diverse plans to reduce waste occurring in the entire process of design, manufacture, and supply of products, as well as to increase the reuse rate.
In close cooperation with related associations, institutions, and enterprises, we are expanding its research on the effective use of raw materials using effective processes, ensuring that generated waste can be used as raw materials in related industries.



Through global business operations and supporting strategies at the supply chain management level, we have a number of job positions to be filled.
In particular, it will guarantee employment equity and will make continuous efforts to increase consumption in the respective local communities.

In an effort to respond to the global campaign for reduced greenhouse gas emissions, Samsung SDI participates in the Carbon Emissions Trading Scheme.
Setting a global carbon emission target by global workplace, and using consistent monitoring and verifications, we invest ceaseless efforts to decrease emissions.

BUSINESS OVERVIEW

525.9 billion KRW

R&D investment

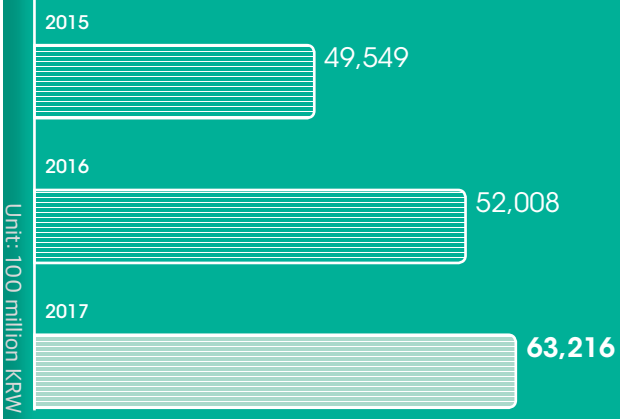
8.3 %

Investment in R&D against sales

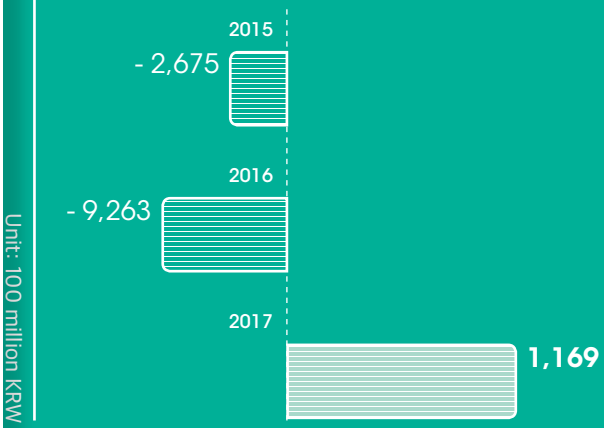
13,304 cases

The current state of registration of patents

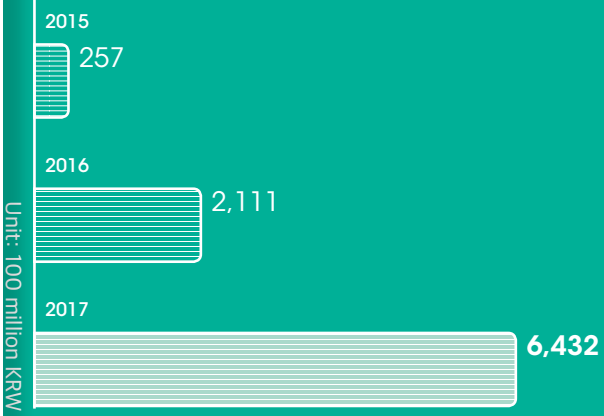
Revenue



Operating income (Loss)



Net income



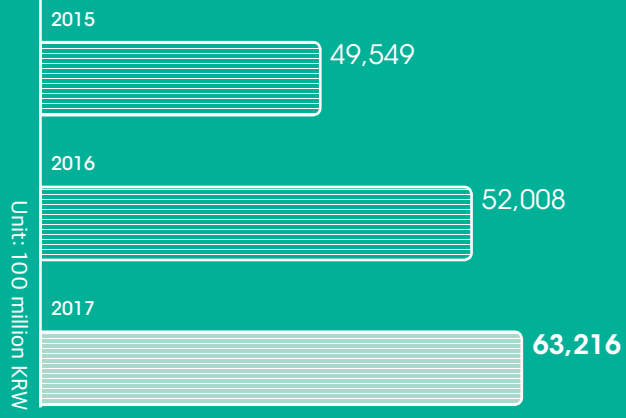
24.2%

Portion of research and development staff

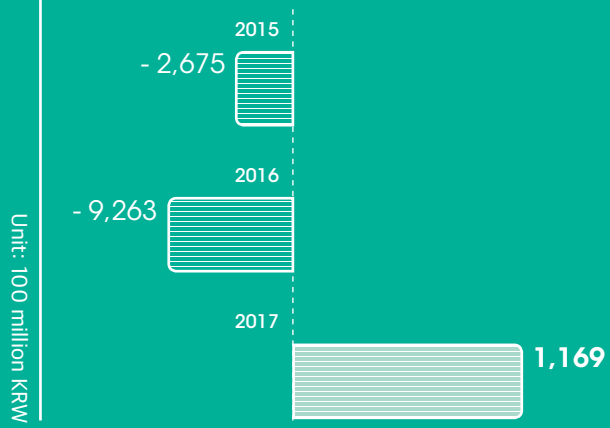
2,215 persons

Research and development staff

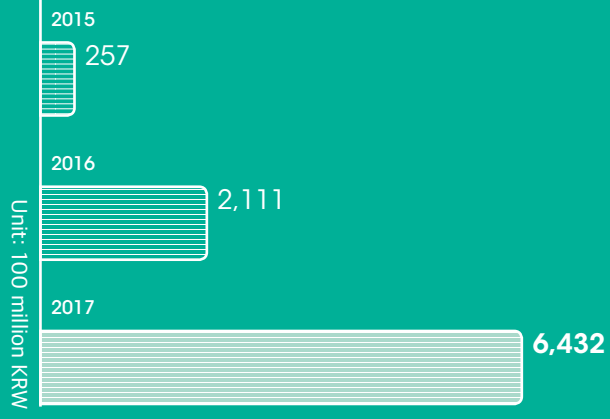
Revenue



Operating income (Loss)



Net income



Stable managerial achievement through enhanced competitiveness resulting from advanced future technologies

01 Securement of a future growth engine

What are important issues?

With the intensification of global competition, companies resting on their laurels face difficulties in achieving greater growth and development.
In this context, relevant efforts have been made to secure differentiated research and development competency, as well as to accelerate advancement into new markets based on stable financial performances focused on advanced companies.

Our status

As a provider of top-rank materials and total energy solutions, Samsung SDI strengthens its technological competitiveness through consistent investments in R&D. Simultaneously, we also endeavor to make inroads into new markets and to conduct solid business management to ensure stable managerial achievement.

Our evaluation

In addition to 'Enhancement of R&D Competency' and 'New Market Development,' which were selected as high material issues in the financial and economic sectors in 2016, 'Securement of a Future Growth Engine' and 'Achievement of Stable Managerial Performance' were considered new high material issues as a result of a materiality assessment in 2017.

Our impact boundary

Regarding securement of a future growth engine, 'employees' and 'partners' are defined as areas of major stakeholder interest. Employees and partners fulfill their roles of enhancing productivity and creating new value on the front line of management.

Our performance & future plan

Samsung SDI plans to increase new orders in existing business areas and to focus on strengthening its global competitiveness. It will also expand investments in R&D in consideration of sales.

Enhancement of R&D competency

Samsung SDI secures new technologies and furthers technological competitiveness through consistent investments in R&D. In a consistent effort to emerge as an expert company in the energy sector, it seeks to be regarded as an environmentally-friendly top-rank material and total energy solution provider engaged in the next-generation market featuring secondary batteries, semiconductors, and display materials.

R&D strategy

At a research center under the direct supervision of the CEO, Samsung SDI operates Small-sized Li-ion battery business, Automotive and ESS, and the Electronic materials business. More specifically, in 2017, seeking to strengthen the development of new technologies that can lead to momentum for future growth, we expanded and reorganized an R&D center for materials development.

Open Innovation

In close collaboration with specialized external institutions, experts, and universities, Samsung SDI expands university-industry cooperation to secure next-generation battery technologies while nurturing excellent human resources through facilitated exchanges between the involved universities and corporations.

In 2017, in cooperation with UNIST, we completed the construction of a 'Battery R&D Center' for effective and integrated research on secondary batteries. The research center focuses on the investigation of Small-sized Li-ion batteries for smartphones and IT devices, as well as of automotive & ESS batteries for electric vehicles and energy storage devices. In an effort to develop 'fast-charged long-lasting safe batteries,' we plan to consistently push research on materials used in lithium secondary batteries for next generation of infrastructure, including an excellent human resource pool, analysis devices, facilities, and production lines.

Enhancement of cooperation in scientific research on secondary batteries

Samsung SDI takes the lead in expanding the research base of secondary batteries and securing excellent personnel through strengthening networks with universities. Following the establishment of industry-university cooperation in 2016 with Seoul National University, POSTECH, Hanyang University, and UNIST, we signed an agreement with Sungkyunkwan University in Februrary 2018 to expand, sustain, and strengthen cooperation on research in the secondary battery sector. Cooperation with each university features joint research projects, a secondary battery R&D center, and the operation of specialization programs. In order to establish systematic relationships through close interactions with academia, we also match pertinent executives with researchers on a one-on-one basis and provides research grants. Samsung SDI will strengthen the impact of its excellent human resources and expanded recruitment in the secondary battery sector through proactive operation of industry-university programs and push for shared growth in cooperation with academia through consistent exchanges of information, personnel, and materials.

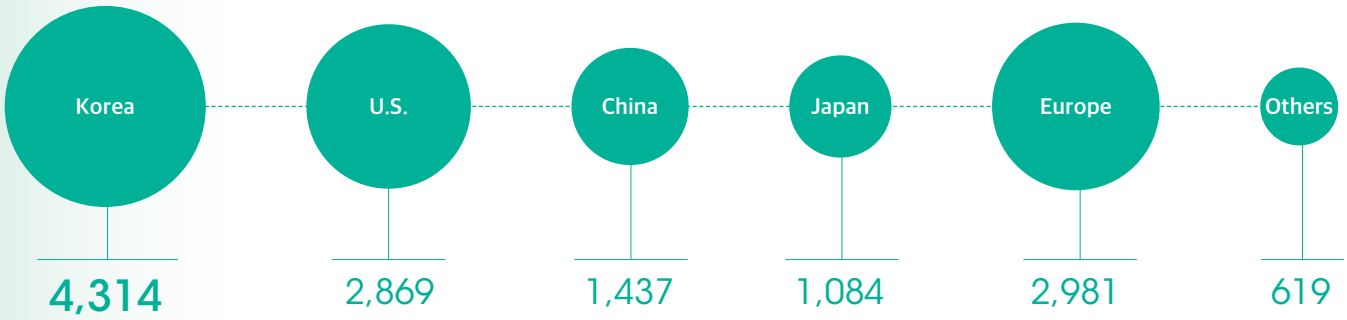
❶ ❷

❶ A panoramic view of UNIST Li-ion Battery Industry- University Research Center
❷ Samsung SDI-Sungkyunkwan University Industry- University Cooperation Contract-Signing Ceremony

Patent management

In order to enhance technological competitiveness in the secondary battery field, Samsung SDI develops core materials of batteries at the SDI Research Center and obtains patents based on the obtained research results. We also strengthen patent competitiveness through effective business support from various sectors and focuses on developing next-generation technologies. As of 2017, we owned 4,314 registered patents in the domestic market and 8,990 registered patents in major overseas markets, including the U.S., Europe, China, and Japan. we also endeavor to be competitive in R&D and prevents disputes on patents through consistent application, registration, and maintenance of them.

● Patent registration in 2017 (Unit: Case)



Main R&D Performance in 2017

Research projects	Research results and envisaged effects
Development of gap-filling tapes for the protection of electrode assembly of cylinder-shaped secondary battery	• Improvement of anti-vibration feature through fixation and protection of inner components (jelly roll) of the batteries
Development of cylindrical cases for xEV lithium-ion batteries	• Development of case befitting batteries for electric vehicles • Improvement of safety and reliability
Development of OLED deposition materials	• Advancement into new markets through the development of deposition materials that can lead to the development of highly efficient and long-lasting batteries
Development of next-generation polarizing films	• Expansion of a product portfolio through the development of polarizing films applicable to new display products
Development of high-brightness CR	• Retention of the existing MS through the development of products with a higher brightness than the one afforded by existing products
Development of semiconductor slurry	• Expansion of markets through the introduction of new product groups
Development of semiconductor EMC	• Expansion of markets through the development of EMC with excellent void properties
Development of a highly efficient electrode paste	• Realization of a secure base for increased sales through the development of a highly efficient electrode paste

1

Development of high energy density automotive batteries

Samsung SDI develops technologies that can dramatically improve the energy density of batteries to ensure an expanded mileage of electric vehicles.
In 2017, we developed products with battery capacities improved by 25% as compared to existing products of the same size and is currently getting ready for mass production. We are also pushing for the development of technology of innovative materials and structures so as to consistently improve the energy density of batteries.

2

Development of ESS Compact Platform

Seeking to maximize competitiveness of ESS (Energy Storage System), Samsung SDI has reduced the size of platforms from 19" to 17" and has developed a more simplified Compact Platform whose modules are assembled without trays.
This innovation has reduced material costs and improved energy density, thus enabling thus an increase in market share and dramatically increasing sales in the ESS market.

3

Development of cylindrical 21700 Battery

The capacity of the 21700 battery (21 mm in diameter and 70 mm in height) has improved by 50% as compared to existing products (18650, 18 mm in diameter, 65 mm in height). Therefore the desired capacity can only be achieved with a small number of batteries. The 21700 battery has the optimum size that can maximize not only the lifetime, but also the output. Owing to its cost competitiveness, in the future, it is expected to emerge as the standard of the cylindrical battery market, featuring power tools and electric bikes.

4

Development of technology to enhance safety of batteries

Since 2016, when the safety of smartphones was questioned, focused efforts have been invested into strengthening safety in the entire production process of R&D, manufacturing technology, and quality inspection. Accordingly, in order to obtain good feedback from the inspections by external institutions, which led to a full-fledged supply of premium smartphones in the first of half of 2017, Samsung SDI developed products of a greatly strengthened safety. We also conduct continuous research that prioritizes product safety based on pertinent research of all-solid-state batteries that can fundamentally prevent ignition or explosion through the use of solid materials instead of the existing liquid electrolytes.

5

Development of a low-voltage, long-lasting OLED emitting material

In 2014, in an effort to help realize environmentally friendly/low-voltage smartphones, we successfully developed G-Host (Phosphorescence Green Host), a low-voltage, long-lasting OLED emitting material.
In 2017, we succeeded in developing improved products with longer lifetimes and lower operating voltages to secure differentiated competitiveness. Consequently, it was selected by major smartphone providers for their new products.

6

Development of Polarized Films for OLED

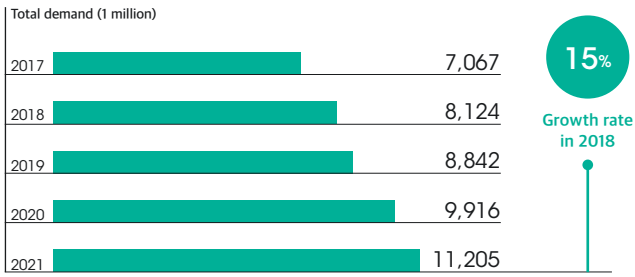
OLED panels require polarized films with a new structure that would differ from the existing LCD products due to the strong surface-reflection characteristics. In this respect, Samsung SDI started developing OLED polarized films based on the phase difference in thin films and succeeded in securing this technology in 2017 before supplying it to client companies.
This achievement led Samsung SDI to secure product technology that can respond to new processes and own diversified polarized film product portfolios needed on the rapidly growing OLED market.

Small-sized Li-Ion Battery

BUSINESS STRATEGY

Samsung SDI provides optimized solutions to diverse IT device markets featuring smartphones and wearable devices. It also expands the business and leads the new fast-growing Small-sized Li-ion battery market, thereby expanding environmentally friendly, highly efficient trends based on the effective use of differentiated technologies.

Demand prospects for Small-sized Li-ion Battery



PROSPECTS FOR GLOBAL MARKET

In 2018, demand in the Small-sized Li-ion battery market is expected to grow by 15% from the previous year, to post a total of 8.1 billion cells. In particular, in view of an ever-growing use of lithium ion secondary batteries in various power applications, such as electric devices and vacuum cleaners, demand for these appliances is expected to grow by 26% or more from previous years.

In addition, the market for electric vehicles with cylindrical batteries is dramatically expanding. IT Division forecasts that AI and IoT (Internet of Things) technologies will soon be genuinely commercialized, leading to the proliferation of new wearable and VR/AR devices. In this context, Samsung SDI plans to further strengthen its leadership in various markets, ranging from electric power to IT.

BUSINESS CASE

Participation in EURO BIKE 2017

Samsung SDI participated in 'EURO BIKE 2017' held in Friedrichshafen in Germany to unveil the lithium-ion battery technology for various electric bikes. We displayed 6 types of standardized battery packs for electric bikes. In addition, we also showed 12 types of battery packs and cells of various specifications. It also introduced added Bluetooth functions to the battery pack that enables users to check remaining battery power and Distance to Empty (DTE) with a smartphone while riding a bike.

A 25% increase in capacity based on free-form batteries with a smaller gap

As 250mAh Free Verse Battery developed by Samsung SDI was installed in Samsung Electronics Gear S2, it was unveiled in the market for the first time. In order to increase battery capacity by approximately 25% and to best fit the cylindrical design, the newly developed free verse battery will be improved in terms of spatial use.

BUSINESS PLAN FOR 2018

Following the success of a surplus in 2017, Samsung SDI plans to push for consistent growth in sales and higher profits through stability.

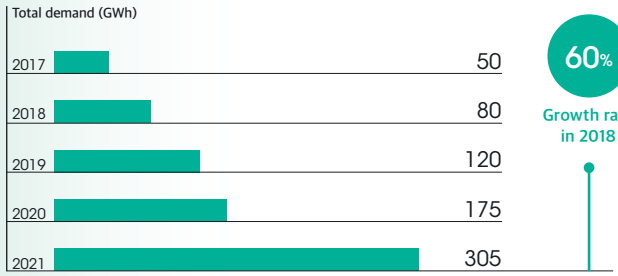
With regard to polymer product groups, we plan to continuously expand our sales of such high-safety, high-energy-density products to major global clients. Concerning cylindrical product groups, we plan to maintain our currently dominating market share and to expand the development and release of differentiated products.

Automotive battery

BUSINESS STRATEGY

Seeking to minimize CO_2 and various air contaminants emitted from the existing internal-combustion engines, global auto producers suggest environmentally friendly alternatives, including electric vehicles. In this respect, Samsung SDI focuses on high-efficiency, high-energy-density batteries for low-pollution vehicles with the accumulated expertise in the mobile device battery sector. .

Demand prospects for Electric Vehicles Battery



PROSPECTS FOR THE GLOBAL MARKET

In 2017, Samsung SDI's sales of electric vehicles (xEV) increased in major global markets, including China, Europe, and the Americas, to record a 25% growth rate from the previous year.

At the moment, we plan to start releasing a new model with a greater mileage in 2018, and automakers are expected to start launching models equipped with long-distance driving systems and self-driving systems, giving further momentum to the market in 2020.

By 2022, the number of electric vehicles sold per annum is expected to record over 10 million, accounting thus for 10% of the entire auto market. In addition, due to strict environmental regulations in Europe, the number of diesel-fueled cars is currently decreasing; moreover, countries like Norway and the Netherlands are planning to stop selling and operating vehicles with internal combustion engines. As to China, the world's largest car market, it is expected to introduce a compulsory quota on electric/plug-in hybrid systems from 2019. Accordingly, the mid-to-long-term electric car market is likely to dramatically surpass market expectations.

BUSINESS CASE

Samsung SDI, 'The Future of an Electric Vehicles Begin Today'

The '2018 Detroit Auto Show' held in Cobo Center in Detroit, Michigan, demonstrated high-capacity, rapid-charging innovative materials, as well as advanced products that are expected to play an essential role in inducing popularization of electric vehicles en masse. At this event, we displayed differentiated product competitiveness through a diversified battery cell line-up for the next generation that can be applied to high-energy-density battery cells for battery electric or plug-in hybrid vehicles that can run up to 600km by integrating 20-minute fast charge technology. Samsung SDI is also determined to further develop innovative technologies by introducing graphene balls (improved by 45% in terms of capacity and five times faster in terms of speed) and an all-solid-state battery (improved in terms of material, capacity, and safety). This achievement has been reported in a publication in Nature, a world-renowned science journal.

Completion of construction of a factory manufacturing batteries for electric vehicles in Hungary

We completed the construction of a factory that can produce batteries for 50,000 electric vehicles in an area covering about 330,000 m^2 in Goed city, near Budapest in Hungary. The factory in Hungary plans to start mass production of the vehicles from the second quarter of 2018. The factory will contribute to reducing logistical costs and further enhance services offered to clients in Europe. Due to strict environmental regulations, Europe is a gigantic potential market in the electric car sector, and the completion of the plant in Hungary has led Samsung SDI to establish, in cooperation with Ulsan and Xian in China, a triangular production system for global electric car batteries.

BUSINESS PLAN IN 2018

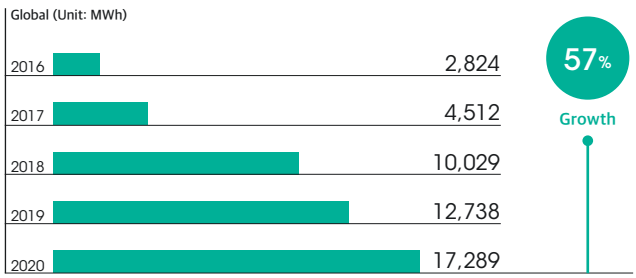
In Europe and other emerging markets where Samsung SDI is expected to achieve consistent growth, we plan to continuously increase the release of new products whose production will employ the use of new technologies, such as an energy-density fast-charging system. Currently, in an effort to meet the market demand for environmentally safe cars, global automakers are focused on developing electric vehicles. In this context, shifting the focus from the sale of components. Samsung SDI plans to play the role of a reliable partner that can offer the optimum automotive battery solution to automakers while leading the upstream and the downstream industries in the electric vehicles sector.

ESS

BUSINESS STRATEGY

By promoting the ESS battery, the main product of Samsung SDI, its market share is not only increasing in the domestic market, but also in advanced economies such as Japan, the Americas, and Europe. The strategy also focuses on advancing into emerging markets, and intensifying our presence in various areas in battery domain, ranging from common household batteries to large-sized power batteries, commercial batteries, and UPS batteries.

Scale of global ESS lithium-ion battery market



PROSPECTS FOR THE GLOBAL MARKET

Advanced countries, including the U.S., Japan, and Europe, conduct large-scale empirical projects with ESS-related government grants and secure price competitiveness through mass production of lithium-ion secondary batteries. In addition, by legislating the mandatory introduction of ESS and by providing subsidies in the event of linkage between new renewable energy and ESS, these economies provide systematic support to the installation of ESS. Accordingly, in addition to the U.S., the world's largest ESS market, the demand for ESS is expected to constantly grow also in Japan and Europe, centering around Germany. The Korean government nurtures the ESS industry through the 'ESS promotion fee system,' the 'REC weight value policy in case of linkage between new and renewable power generators and ESS,' and the 'Renewable Energy 3020 Action Plan.' All these initiatives are expected to expand the domestic ESS market.

BUSINESS CASE

Additional supply of Samsung SDI batteries at 5,000 meters above sea level in the high reaches of Tibet

In 2016, aiming to supply power to residents of the high reaches of Tibet, Samsung SDI, in cooperation with Sungrow, the largest PCS (Power Conditioning System) provider in China, conducted an environmentally friendly self-sufficiency system project with a 14MWh ESS and a 13MW photovoltaic generator system. Shuanghu in Tibet, the world's highest-altitude site among global ESS installation sites, has extremely cold (range: - 5℃ to - 40℃) weather conditions. Amid these difficulties, Samsung SDI supplied highly competitive batteries developed based on optimum solutions. On top of these achievements, aiming to prove that our batteries can provide the optimum solution in harsh weather conditions, we also installed PV and ESS on the same scale as Sungrow.

Samsung SDI supplies batteries to the world's largest industrial ESS

Using Samsung SDI batteries in its HQ in Ulsan, Hyundai Heavy Industries Co., Ltd. established a 51.5MWh industrial ESS center. This is recognized as the world's largest industrial ESS and can save power used by 15,000 persons a day, which accounts for 1/5 of the target of an ESS proliferation project that the government pursues as part of a new energy program. Operating the ESS is expected to decrease energy use at peak times recorded by HHI and to increase energy efficiency to save above 10 billion KRW in annual expenses.

BUSINESS PLAN IN 2018

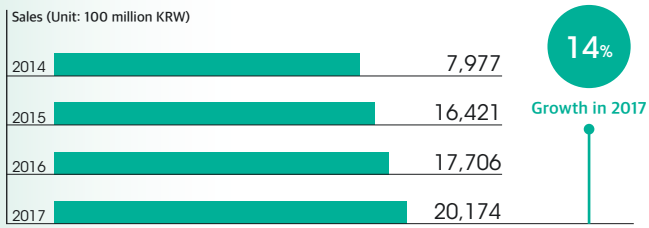
Amid global nuclear-and-coal-phase-out trends, there is an ever-growing interest in new renewable energy. Following 2017, we started expanding investments in electric ESS solutions and deemed it necessary to establish a strategy that would enhance the supply to meet the demands for ESS in consideration of the facilitated photovoltaic industry in 2018. In addition, considering the globally rising self-consumption of photovoltaic systems for households, we plan to expand a supply channel of household ESS solutions and to steady increase our market share in this segment. We also plan to expand ESS solution businesses and to solidify our status as a market leader in the ESS sector in the North American and European markets, where the business is gradually growing as a result of increased electric charges and improved economic efficiency. In the domestic market, this will be achieved by launching the products based on innovative technology, which will lead to the constant expansion of sales and let us gain great success in the industry.

Electronic materials

BUSINESS STRATEGY

The Electronic Materials Business Division of Samsung SDI develops and sells materials used in semiconductors, displays, and next-generation energy. As these products are characterized by a short life-cycle and speedy technological changes, we strive to be equipped with advanced R&D capability in order to meet diverse customer demands and vigorously push forward the enhancement of business competitiveness through use of differentiated technology and strict quality management.

Sales performance of electronic materials



PROSPECTS FOR THE GLOBAL MARKET

With a recent slowdown of the growth rate in the TV and smartphone markets, demand for such main products as semiconductors and displays has stagnated. However, the global economy is expected to record the greatest growth in 2018 after the financial crises, and demand for our business is expected to grow as well. In particular, the semiconductor market, where the memory sector yields good results, is expected to boom on the strength of the development of fine process technology and the expansion of a three-dimensional structure. Accordingly, diverse applications are likely to continue adopting OLED, thereby creating a new demand in the display market. However, due to generalization of technology, the LCD market is expected to face intensified competition. Accordingly, the use of differentiated technology, cost savings, and further efforts to diversify responses to customers will become key concerns in the future.

BUSINESS CASE

Electronic materials business makes continuing efforts to realize self-innovation

Starting with the development of EMC, a process material for semiconductors, in 1994, we entered the electronic materials sector. Since then, due to constant self-innovation and ceaseless technological development, we have successfully advanced into new sectors. Currently, with its advanced technology and specialized competency in various sectors, ranging from semiconductors, displays, and secondary batteries to materials for photovoltaic cells, we lead global technology trends.

A path for a new growth engine found in OLED

Industrial leaders with strong market dominance in the smartphone market have already applied OLED in their main products. Samsung SDI takes the lead in advancing development in an effort to respond to shifting customer needs in the rapidly changing market where even latecomers try to get ahead of others by expanding investments in related sectors. Phosphorescence Green Host (G-Host), an OLED material developed by Samsung SDI in 2014, continues to rank 1st in global market share, and we were successful in developing improved products with longer lifetimes and lower operating voltages so that these products were selected by major smartphone providers for their new products in 2017. In 2016, on opening a factory in Wuxi, China, we successfully developed polarizing films for OLED characterized by a completely different structure and enhanced productivity.

BUSINESS PLAN IN 2018

Samsung SDI aims to maintain its global market leadership by launching differentiated products on the strength of advanced technology in 2018. Furthermore, through proactive investments in products expected to lead technology trends in the future we also plan to provide the solutions most desired by customers. In order to secure dominance in the existing market and to focus on developing and supplying products that can respond to the high demand for high-efficiency products in fast growing photovoltaic energy material markets, we will offer semiconductor and display materials that excel beyond those of competitors. At the same time, we will develop flexible display and semiconductor materials for the future, thereby leading the next-generation IT device market in order to secure a growth base while establishing a production system to provide products desired by customers.

MATERIAL ISSUE IN 2017

74 persons

Quality experts

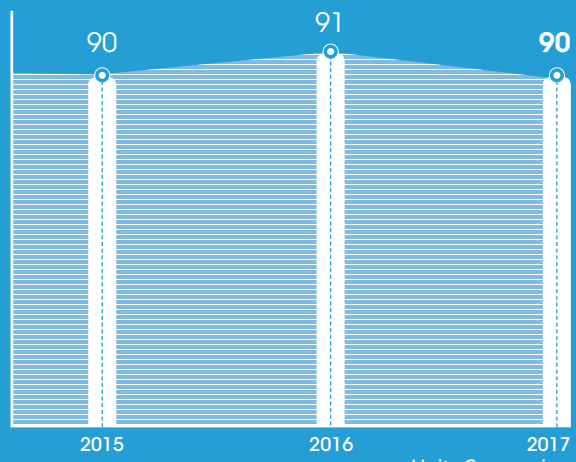
356 cases

Safety environment audit

4.43 trillion KRW

Total purchase cost

S-Partner Certification



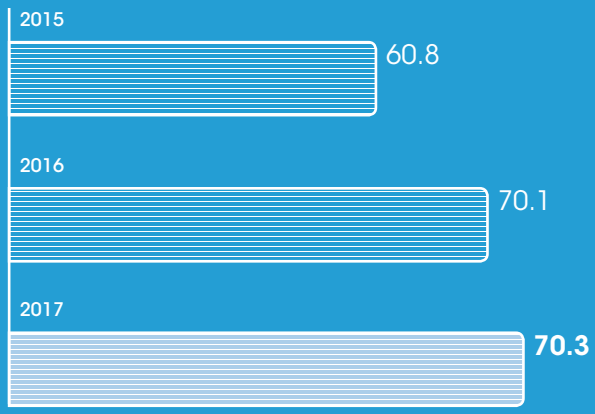
Unit: Companies

Employee training

	2015	2016	2017
Training hours per employee-Korea (Unit: Hour)	91	100	**103**
Training cost per employee-Korea (Unit: KRW)	1,172,181	1,097,022	**990,632**
Training hours per employee-Overseas corporations (Unit: Hour)	66	90	**86**

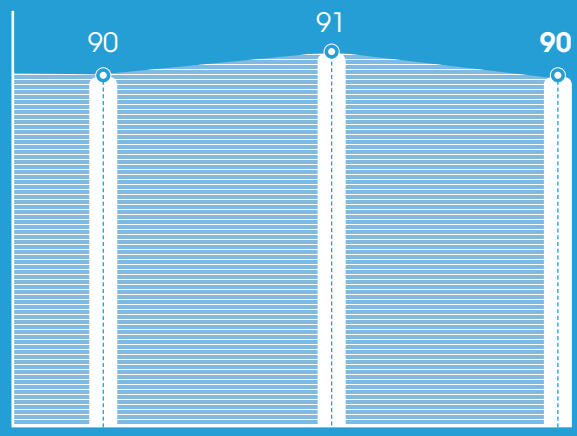
*Excluding newly established corporations and newly acquired corporations in 2015

SCI* Score



* SCI (Samsung Culture Index): Refer to page 53

S-Partner Certification



Unit: Companies

Rate of ownership of national qualification certification

	2015	2016	2017
Industrial engineer or higher (Unit: %)	65	73	**83**
Master craftsman or higher (Unit: %)	11	17	**37**

Employee training

	2015	2016	2017
Training hours per employee-Korea (Unit: Hour)	91	100	**103**
Training cost per employee-Korea (Unit: KRW)	1,172,181	1,097,022	**990,632**
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*Excluding newly established corporations and newly acquired corporations in 2015

Improvement of customer satisfaction through the enhancement of product quality and safety

01
Product Quality and Safety

What are important issues?

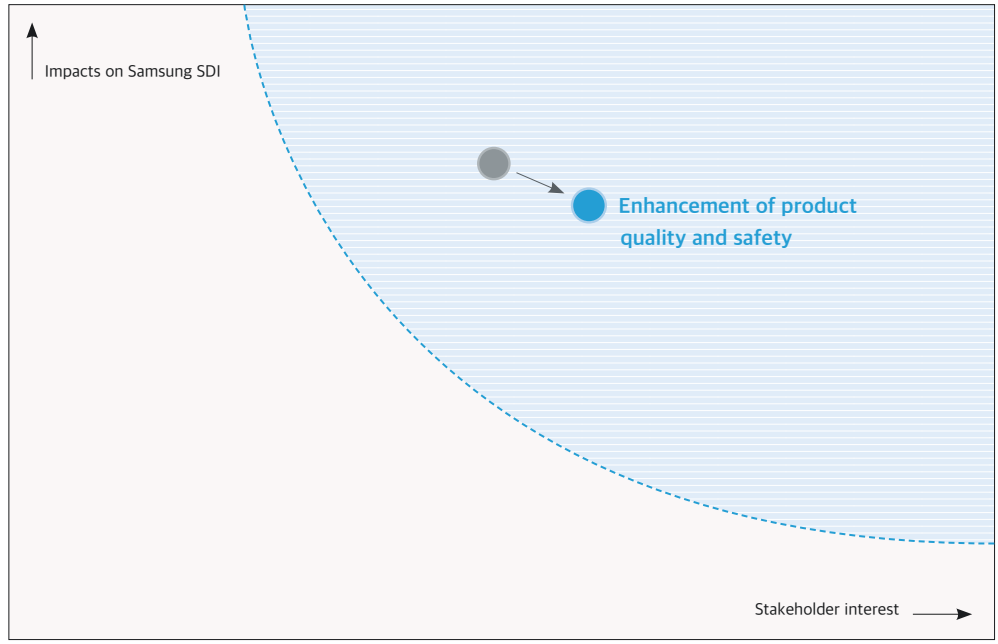
Product quality and safety are the most essential factors in sustaining continuous growth based on customer confidence.
Strict compliance with the standards for product quality is required in the entire process, ranging from management of supply and demand of raw materials, product design and manufacture, to disposal.

Our status

In an effort to overcome potential quality problems, Samsung SDI prioritizes customers' opinions in its managerial activities. Through application of a stringent quality control system, we also seek to enhance customer confidence and satisfaction by preventing recurrence of the same defects.

Our evaluation

'Product Quality and Safety Enhancement', cited as one of the high material issues in the social and ethical sector in 2016, was also reflected in 2017 in the high material issues of the materiality assessment.



Our impact boundary

Stakeholders who are to be prioritized regarding product quality and safety enhancement are customers. At present, it becomes imperative to release high-quality products with excellent safety that also reflects customer needs.

Our performance & future plan

As part of the effort to introduce fundamental changes in quality control, the company operates a Quality Assurance Office under the direct supervision of the CEO. We also make our best effort to manage product quality and safety by changing the standards for quality inspection from the existing sampling method to a total inspection.

KPIs	Targets in 2017	Performances in 2017	Fulfillment	Targets in 2018
Ratio of ISO 9001 Auditor Qualification (%)	23	15	-	16
Ratio of Quality Management Qualification (Excluding ISO 9001) (%)	39	26	-	29

* Reduction in the ratio of qualification due to increase in the number of employees with Quality Assurance Office

Product quality and safety management system

As for the safety issues concerning batteries, in 2016, Samsung SDI established an omnidirectional quality innovation strategy so as to secure high quality and safety. In an effort to supply optimum batteries and electronic materials based on the analyses of demands in the market and consumer needs, we endeavor to develop safe products in diversified user environments.

Policy

Creating Value for Customers, Making the World a Better Place

● Code of Conduct

Build Customer's trust by creating value

We enhance our customers' value by regarding the needs of even our potential customers and actively reflecting them on our products. We maximize the close relationship with our customers based on trust, thanks to our speedy, accurate, and cordial VOC solving.

Place the environment and safety first

We comply with international environment regulations, and in order to place customers' safety first, we value the awareness and responsibility of Zero Defect Quality.

Continuously improve Quality Management System and Process

Samsung SDI Quality Management Policy is in compliance with ISO 9001, IATF 16949. Each stage process and criteria of Development(PLM), Production(MES), Quality(IQMS,LIMS) System and 8 Main Quality Process (development management, reliability, component control, process quality, changing control, abnormal occurrence, outgoing assurance, VOC management) is clearly defined, strictly followed and continuously improved.

Support for the improvement of quality for partner companies and overseas corporations

We provide partner companies with advance support for quality control activities and distribute established and revised quality assurance manuals. Through quarterly reviews of quality descriptions of important materials, Samsung SDI selects inspection items, including quality issues and management failure cases from customers' perspectives, thoroughly improves quality and rules out technical issues. In addition, as the Electronic Materials Business Division established SDI Wuxi (SDIW), we introduced analysis reliability devices and installed a phased quality evaluation system that features raw materials, processes, and products. Through these efforts, we succeeded in realizing mass production and high quality at an earlier stage while stabilizing the quantity of supply.

Using customer opinions to enhance product quality

In order to monitor and efficiently solve potential quality problems, Samsung SDI reflects and manages VOC as its main KPI index for managerial activities. We also established real-time communication channels for customers to figure out customer needs and to listen to VOC through visits to customers and quarterly evaluations (QBR: Quarterly Business Review). At the same time, company manages lead-time by stage of VOC response, analyzes defects by type, and applies appropriate lead-time for the timely completion of VOC analyses and improvement. We also endeavor to reduce actual response lead-time experienced by customers through advanced sharing of an analysis schedule. Samsung SDI will further improve quality reliability by keeping the same defects from recurring through analyses on defect types and impacts and through the application of a lateral development management system in 2018.

Improvement agenda concerning quality management

Samsung SDI draws up an agenda concerning the improvement of process and the enhancement of quality competitiveness in order to give presentations under the supervision of the Quality Assurance Office, an enterprise-wide quality assurance organization. Prize winners selected after presentations benefit from incentives based on a year-end reward system, and excellent cases are shared enterprise-wide for quality improvement. At the same time, we designate four main assignments for quality improvement, including development, components, mass production and market, and draw up detailed action plans before execution.

Improvement of quality management in 2017

Component quality

Samsung SDI has expertise in managing components and partners by product. It is equipped with a system for inspecting the quality of components in the development stage and shares information about defective components throughout the supply chain management. We also establish a process ensuring the quality of finished components and securing quality and safety before warehousing.

Development quality

We perform inspection of development quality by analyzing defect types and impacts and by securing accelerated inspection tools for fundamental inspection technology in the entire product process. We also synchronize quality inspection of automotive & ESS battery cell modules based on the evaluation of quality characteristics of module properties.

Mass-production quality

Samsung SDI pushes for the improvement of process capacity in order to realize uniform quality at a global level. We also pursue big-data-based quality infrastructure through process analyses.

Customer quality

We have a global customer satisfaction response system and operate CS and FAE strongholds by area.

Customer satisfaction survey

Samsung SDI regularly performs a detailed customer satisfaction survey of activities by business sector. The survey targets not only product quality, but also a wide variety of other relevant items, such as R&D competency, service, and delivery for the purpose of the establishment of indices. The results of the customer satisfaction survey are appropriately reflected in product quality by business sector and in the improvements at the level of infrastructure. As for the Small-sized Li-ion battery sector, among the main business sectors, a Customer Satisfaction Index (CSI) survey was conducted among 21 major clients to analyze customer complaints by item. Aiming to make improvements, this survey focused on quality characteristics, quality satisfaction, and service quality as compared to those of our competitors.

Category			Unit	2015	2016	2017
Customer satisfaction	Small-sized Li-ion battery	Customer satisfaction score	Point	78.4	76.8	81.9
		The number of companies conducting customer satisfaction survey	Companies	28	33	21
		The number of customers engaged in customer satisfaction survey	Persons	32	35	24
	Automotive battery & ESS	Customer satisfaction score	Point	-	82	85.9
		The number of companies conducting customer satisfaction survey	Companies	-	2	4
		The number of customers engaged in customer satisfaction survey	Persons	-	2	4
	Electronic material	The number of companies conducting customer satisfaction survey	Companies	26	28	33
		The number of customers engaged in customer satisfaction survey	Persons	182	178	190

* For Electronic Materials division, we did not present a comprehensive customer satisfaction score due to various product portfolio

BUSINESS CASE

Product Safety and Innovation Task Force (TF)

Galaxy S8, first presented in March 2017, is equipped with a Samsung SDI battery characterized by considerably strengthened safety. In order to enhance battery safety, Samsung SDI conducted 'Product Safety and Innovation TF' activities with 100 employees from major divisions. We invested 150 billion KRW or more for about three months to figure out the problems in the entire process and to ultimately resolve these issues. Due to these efforts, defects such as low-voltage fault, heat generation, or burning damage were not noted, and its lifetime capacity was dramatically improved by 95% based on 500 electric charges and discharges.

Points to improve main safety impact factors

1. We have dramatically improved the method of forming a pouch that constitutes the exterior of a battery to completely remove the factors that might influence an electrode plate.
2. Due to the application of materials with enhanced physical properties in terms of mechanical intensity and thermal contraction rate, it has better safety characteristics in its basic composition.
3. Detailed management of the parts known to be vulnerable to electric stress was strengthened from the manufacturing stage and additional conduct as well as additional deconstruction analysis.
4. A bar code cell tracking system was established to examine the production process and the quality data of history in the entire process, ranging from the initial stage of battery cell and packaging, to installation in a mobile phone. Therefore, pertinent batteries can be instantly analyzed and the issues can be immediately resolved upon their occurrence.
5. As for X-RAY examination, a total inspection was conducted on anode-plate-aligning within a battery in the existing assembly process. The inspection in the outgoing stage and examination on electrode-plate-pressing were additionally reflected in the measures taken for improvement.
6. In order to be able to conduct an evaluation by a unit of tens of thousands of cells, the number of development verification samples has dramatically increased. Tests were conducted under severe conditions reflecting extreme circumstances so that even the smallest defect could be detected, and pre-inspection was completed to determine various defects that might occur after the release of the products.
7. Deconstruction analyses by process and on finished battery cells and packs were added not only in the development stage, but also in the mass production stage. Thereafter, volatile organic chemicals were examined.

Establishing safety culture and the chemical substance management system

02 Building Up Workplace Safety

What are important issues?

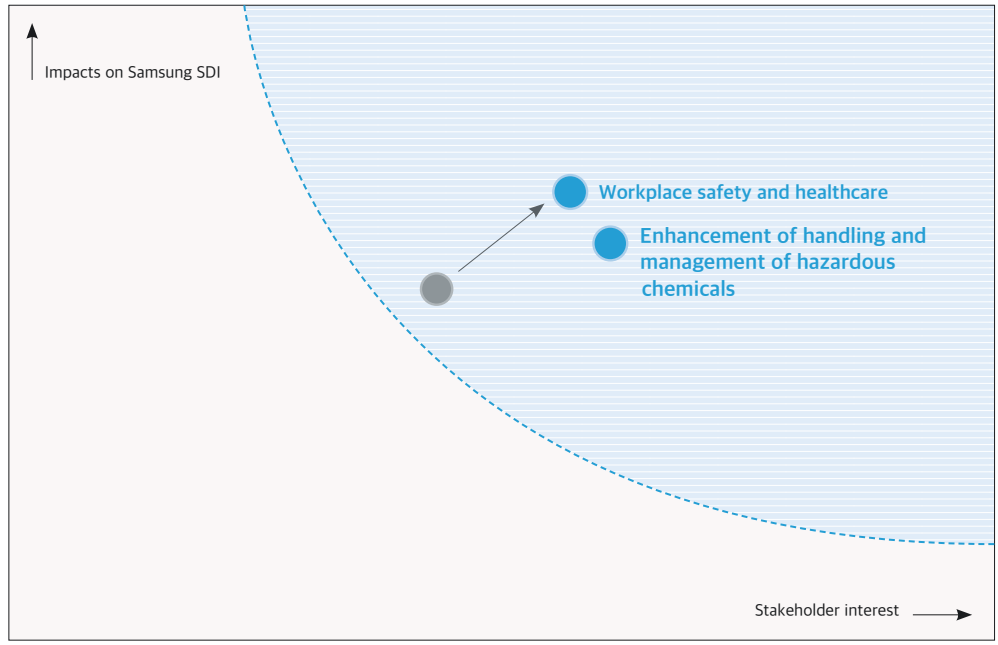
Safety regulations have recently been strengthened not only in Korea, but also throughout the world, including Europe and China. Accordingly, a growing number of people, including residents around workplaces, have developed an interest in safety issues in local communities. In 2015, as companies are requested to apply stricter standards to the importation and management of chemicals, the 'Chemicals Control Act' and the 'Act on Registration, Evaluation, etc. of Chemicals' were introduced to enhance the standards for handling hazardous chemical substances.

Our status

Samsung SDI regularly inspects risk factors in workplaces through safety environment meetings and on-site inspections by the CEO and takes appropriate action. We also constantly manage hazardous chemicals through the establishment of an imported enterprise-wide chemical management system while enhancing employee training.

Our evaluation

In addition to 'Workplace Safety and Healthcare,' cited as one of high material issues in the safety and environment sector in 2016, 'Enhancement of Handling and Management of Hazardous Chemicals' was reflected as a high material issue in the results of a materiality assessment in 2017.



Our impact boundary

Stakeholders who exert a string influence on workplace safety management are 'employees.' Since employees are exposed to various risk factors in the field of production, they need to be protected through appropriate safety management. In the meantime, in order to manage legal regulations on enhancement of the handling and management of hazardous chemicals, the importance of facilitated communication and cooperation with the government and related institutions should be emphasized.

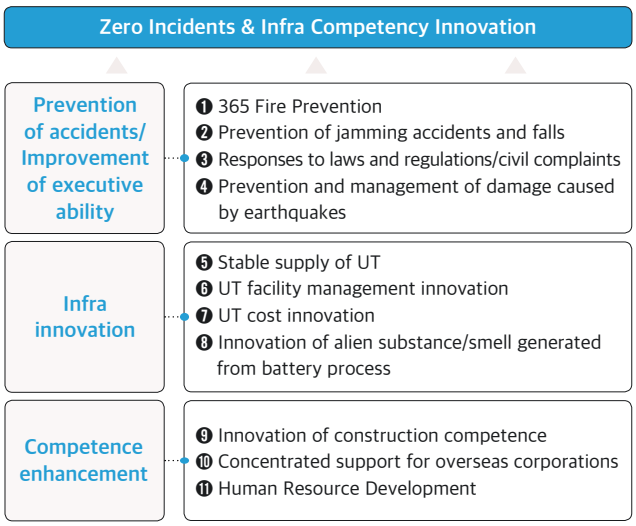
Our performance & future plan

We strengthen preventive management of accidents and safety monitoring and plans to promote safety culture in workplaces and among partners. It also consistently strengthens the hazard identification and monitoring process with regard to chemicals.

KPIs	Targets in 2017	Performances in 2017	Fulfillment	Targets in 2018
Zero Safety Incidents	0	0.14	-	0

Employee safety and health management

Samsung SDI consistently makes investments and improvements aimed at enhancing the health and safety of its employees in order to become a 'Global Leader in the EHS Infra Sector in 2020'.



Prevention and management of accidents

Operation of Safety Environment Integration System

Samsung SDI has established and operates an optimized system for the prevention of accidents and monitoring. Operation of Safety Environment Integration System is an integrated management system for the control of environment, safety, health, chemicals and hazard, providing information on systematic safety management. This system enables real-time monitoring.

Zero Accidents and Zero Violations

In order to prevent incidents that might cause serious crises in management, we perform comprehensive preliminary management and expand the scope of incident management. To this end, we share information on the causes of accidents and responses in order to prevent such incidents from recurring, as well as establish a detailed inspection management system to improve high-risk and outdated facilities. Through consistent precautions for accident prevention, we plan to have zero accidents and zero violations.

Regular Evaluation and Monitoring

Seeking to create a permanently safe work environment with the establishment of self-reliant safety culture, we diagnose functions by sector. In addition, problems detected in regular assessments are continuously resolved through consistent improvement in cooperation with management and employees.

EHS infra enhancement

Internalization of safety management

Samsung SDI prescribes the management, including the CEO, as well as the heads of business divisions and executives, to regularly conduct on-site safety inspections so that to establish a solid safety culture. We provide customized safety environment education to different workplaces and departments. In addition, in order to resolve detected safety-related problems that might occur in the field, we also hold safety environment meetings every other month under the supervision of the CEO and under the control of heads of business divisions.

Expansion of safety cultures in overseas corporations and partners

Given that accidents can occur irrespective of national borders, we focus on expanding our safety culture and on accident prevention in overseas corporations. To this end, we establish channels for communication with overseas manufacturing corporations, figure out the fundamental causes of frequent accidents, improves companies' safety records, and organize a council that includes the head office, business divisions, and overseas production corporations to regularly discuss pertinent methods of maintaining safety culture. Samsung SDI designates in-house partner companies as subject to the same safety management. To check the implementation of safety regulations by resident partners before resolving detected problems, we conduct enterprise-wide joint inspections.

Chemical substance management

Chemical substance management system

Since July 2016, when we established G-EHS system (Global EHS System), we have conducted preliminary inspections of hazardous chemicals. Overall, we aim to prevent the purchase of materials that are not approved by the system, as such materials are high-risk hazardous substances with detrimental impact on the human body. In addition, the system is consistently expanded and applied not only to domestic workplaces, but also to overseas corporations in Malaysia, Vietnam, Tianjin, Xian, and Hungary.

Regulatory responses

In 2015, when the standards for handling hazardous chemicals were strengthened, the procedures for the 'Registration of Subject Chemicals' in accordance with 'The Act on Registration, Evaluation, etc. of Chemicals' have been implemented. We also focus on establishing a cooperative system among related departments in preparation for possible legal revisions in the future. Furthermore, aiming to conduct preliminary management of chemicals, realize timely registration responses in accordance with the 'Act on Registration, Evaluation, etc. of Chemicals', provide ad-hoc checks for the improvement of the process of handling chemicals, and to efficiently manage safety by providing protective gear, we also operate an import declaration response system and an off-line verification process.

BUSINESS CASE

Battery safety management

Samsung SDI conducts consistent inspection and monitoring activities in order to manage the safety of batteries that might cause fires in workplaces. Executives and heads of corporations regularly perform ad-hoc inspections on the handling and management of batteries. Using in-house broadcasting of safety principles regarding batteries, and by posting incident cases and installing placards, we also provide relevant safety education to employees.

Establishment of standards of handling/storage management of batteries

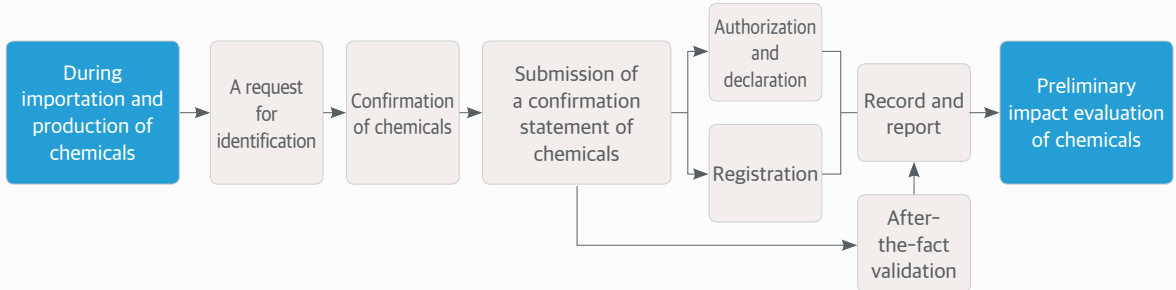
Handling	Storage	Transfer	Disposal	Establishment of specialized rules by process			
				Dry Room	Deconstruction	Cell warehouse	Laboratory

Storage and handling	Storage/handling only in approved workplaces in terms of the safety environment -Approved places: Mandatory installation of detection facilities and fire-extinguishing facilities Over 30% charged battery should be stored in a safe place - Over 30%: A dedicated battery storage box and other approved battery storage places
Transfer	Safety measures preventing conduction and short-circuit inside a packing box when transferring batteries - Insertion of a fixture for the prevention of conduction and insulation of a terminal - Electric discharge during package shipment of batteries between business divisions - Use of a transfer vehicle and prohibition of manual handling of waste batteries during transfer
Disposal	Waste batteries need to be discarded instantly and it is prohibited to mix them with general waste before discharge - Production: Instant disposal of 100 batteries or more at the process site (Cylindrical shape: Tray available) - Development, quality, technology, etc.: Instant disposal of defective batteries Disposal of cylindrical tubing batteries and automotive & ESS batteries after 100% electric discharge

▶ Focused education/promotion after establishment of 10 safety rules on handling of batteries
▶ Establishment of a master card on handling and storage of batteries ➡Focused management

Establishment of the chemical identification system

Regarding imported chemicals, in order to respond to the risks omitted in an identification statement and to conduct self-inspection on all imported chemicals, in 2016, we established a 'Guide for Chemical Identification System.' We also introduced a system enabling to request pre-evaluations of all chemicals subject to purchase and use, in addition to free samples. This system also makes it possible to minimize the risks related to the management of chemicals by making it necessary to submit an identification statement for the re-importation of exported products.



United Samsung SDI Acts
As One-Team
As If It Were One Body

03
One-Team Organization Culture

What are important issues?

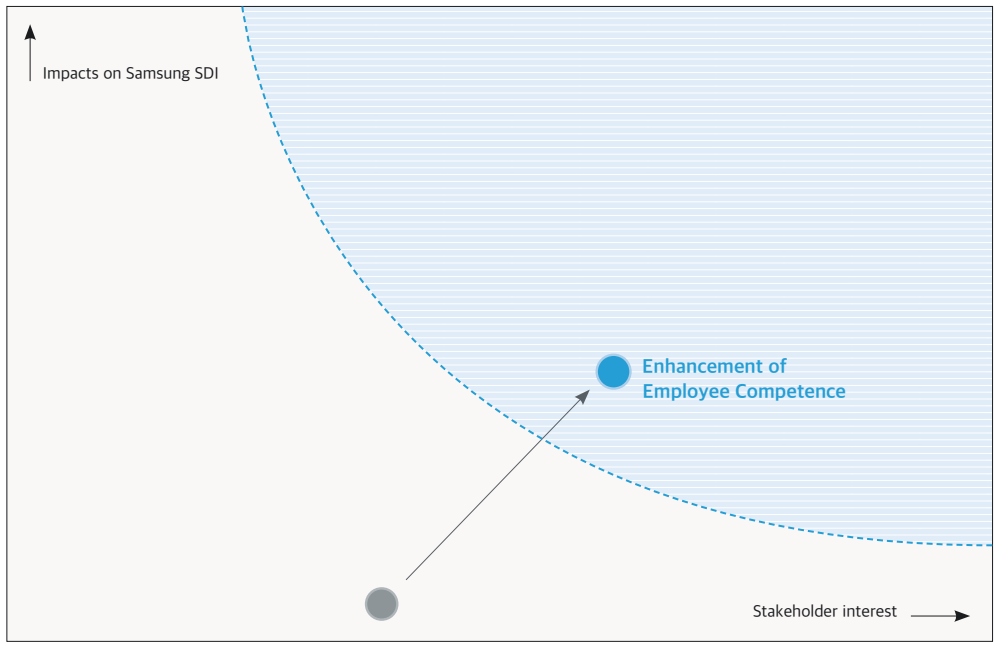
The development and retention of excellent human resources and the creation of a sound organizational culture are essential for a global company to lead the market. Accordingly, we find it necessary to nurture and expand global talent and to improve both the 'quality of work' and the 'quality of life' through an improved working culture.

Our status

Samsung SDI creates environments where employees can consistently achieve growth and provides support to enable their attaining a proper work-life balance. We also continuously expand core human resources equipped with global competence and offers various growth programs to help employees develop into highly qualified experts in the industry.

Our evaluation

'Enhancement of Employee Competence', which was classified as general issue for 2016, was applied as a high material issue in the results of a materiality assessment in 2017.



Our impact boundary

Stakeholders who should be prioritized for the creation of an excellent organizational culture are 'employees.' As the main body of innovation and development of the organizational culture, employees can further enhance corporate competitiveness through strengthening their specialized competencies.

Our performance & future plan

We reinforce development programs for the consistent enhancement of competence and improvement of leadership of employees. We also conduct various organizational cultural activities aiming to increase the satisfaction of employees and expands programs for work-life balance by allowing flexible working hours, making it possible to adjust working hours within a 40-hour week.

Realization of a sound organizational culture

Samsung SDI selects CLs (Culture Leaders), the organizational cultural leaders in the field, to play an essential role in drawing core assignments for further communications and vitality in terms of departmental organizational culture. In 2017, a total of 252 CLs were selected to hold quarterly events for enhanced organization. These events included departmental monthly meetings, conferences by level, cultural experiences, and various sports activities. We also pursue department-specific activities for social contribution and 'Work Smart' activities to promote self-oriented work ethics.

Realization of One-Team Organization Culture

Samsung SDI has workplaces not only in Korea, but also in various countries in the world, including Asia and Europe. We recognize 'differences,' this enabling employees from diverse cultures to achieve harmony in an excellent environment, and endeavor to create a One-Team Organization Culture where each and every employee works as if an integral part of the whole.

Organization of 2017 Culture Fair

The management of Samsung SDI takes the lead in developing and introducing organizational culture by setting a good example. In 2017, we organized a 'Culture Fair,' an event to share enterprise-wide excellent organizational cultural cases, for the first time. The event was attended by the CEO, heads of business divisions, and executives who evaluated excellent cases based on fair reviews and pursued harmony by sharing accomplishments.

Organizational culture-sharing events

Samsung SDI regularly holds organizational culture-sharing events to share its excellent organizational culture enterprise-wide. In particular, with the aim of celebrating its fresh start, strengthening organizing ability of team members, and realizing an energetic organizational culture to be shared, Samsung SDI Research Center organizes 'Sharing, Communication Hof Day.' Through the 'Dream Walking' Program, a walkathon, the participated employees indulged in social contribution activities (receiving and donating 4,000 KRW whenever each of them finished walking 10km). Other social contribution participation programs included compassion concerts, half-shooting challenges, and basketball games.

Operating Internal and External Communication Channels

Samsung SDI runs diverse in-house communication channels including SDI Talk, Global Pick, and in-company broadcasting to share corporate news with employees. We also make efforts to facilitate in-house communication via bulletin boards that all employees can use. In the meantime, we operate social media channels including the official website, blog, and Facebook page in order to deliver the latest news upon products, corporate activities, and recruitment to customers and external stakeholders of Samsung SDI. There is a Customer Inquiry Section on the website as a communication channel that enables Samsung SDI to listen to external stakeholders.

BUSINESS CASE

Cheonan Production Site operates under the slogan 'New Work, All Achieve'

The New Wave

The Cheonan Production Site introduces 'New Wave,' a new organizational culture brand, and motivates employees to think that nothing is impossible. The New Wave is based on the commitment to creating a service culture befitting a global company where everyone participates and where employees achieve growth along with the business by making a fresh start with new leadership and an underlying strength that helps them to cope with crises. Samsung SDI also implements changes in work culture, sharing, communication, and collaboration. The New Wave is a slogan for a new organizational culture of the Cheonan Production Site. It was created with the aim of ranking 1st in the world through 'Settlement of Culture of Communication and Collaboration with Fulfilled Basics and Realization of Technology Leadership and Production Competitiveness.' All employees at the Cheonan Production Site share common goals based on a firm determination to 'innovate and grow together while creating an autonomous working environment to achieve the goal in unison'

Main programs of the New Wave

Upright Wave Campaign

Starting with heads of business divisions, all participating individuals set a good example in order to keep the 'Upright Wave' Campaign's aim to establish a sound work culture and to prevent it from becoming a nominal slogan.

The New Wave Award

We introduced the New Wave Award to reward, on a monthly basis, the team that demonstrates excellent performance in the three principles of 'Technology Leadership, No. 1 in the Market, and Superior Product Competitiveness.'

One Team Road

In order to eliminate departmental partitions, department members are granted the opportunity to communicate with each other by having lunch together.

Work and Life Balance

Samsung SDI creates advanced sound work environments to help its employees focus on their work and to produce better results. We endeavor to raise job satisfaction by establishing diverse resting spaces and supports in-house club activities so as to promote generation of new ideas in a relaxed and comfortable environment. We provide support to enable employees to achieve work-and-life balance. To this end, a service culture was established where efficiency increased through the use of flexible working time, Korea's representative autonomous working time system, and by introducing an annual vacation plan to facilitate more effective use of annual holidays.

Operation of Open Counseling Center

Samsung SDI operates an 'Open Counseling Center' in all workplaces; in this center, licensed psychologists provide diverse services to enhance employee mental well-being and to strengthen their abilities for stress management. Employees benefit from instant support regarding the resolution of personal and business problems through one-on-one counseling via interviews, calls, and messages. Based on counseling ethics imposed on counsellors, all counseling contents remain strictly confidential. In addition, the center permanently operates open programs for mental well-being related to couples, children, interpersonal relationships, and self-understanding and offers a meditation room for meditation training, which helps employees to learn to consistently control their mindset, which ultimately results in a stable corporate life.

Enhancement of job satisfaction

We analyze problems through regular diagnosis of organizational culture (SCI Diagnosis) and explore vulnerabilities that are then addressed by various improvement initiatives. In 2017, seeking to collect opinions on matters requiring correction, we conducted a job satisfaction survey among 92.3% of our employees.

Family-friendly management

On the occasions of Family Day and Children's Day, Samsung SDI holds family-invitation events and offers diverse family participation programs, including family participation volunteer activities and healing camps. We also support a subfertility leave system to improve the likelihood of pregnancy. Another advancement is the introduction of a maternity protection room and a reduction in working hours during female employees' pregnancy and infancy of their children.

Development of employee competency

Excellent human resources are an essential factor involved in strengthening corporate competitiveness and ensuring a flexible response to the rapidly changing management environment. Samsung SDI invests every effort to enhance employees' specialization and to nurture core human resources through systematic competence development systems and programs.

Learning corporate culture

Since 2013, in order to further business expertise and to introduce a voluntary learning culture, Samsung SDI has operated 'Technology Meister' System. Technology Meister is a title granted to employees who have acquired three Master Craft Certifications or two Master Craft Certifications and one Engineer Certification. Such employees are also granted a qualification bonus and extra points at the time of advancement evaluation. In addition, they also receive a specially designed copperplate when they are inducted to the Hall of Fame. In 2016, the Master System that had previously operated only in some workplaces was expanded to all company's workplaces. We also plan to nurture employees' business expertise and to further a voluntary learning culture so as to facilitate diverse in-house systems.

* Master Craft: National Technical Qualification Certification

Development of Job Expertise

Samsung SDI operates job-related e-Learning, classroom training, and OJT, which includes development, technology, manufacture, sales/marketing, and managerial support for the enhancement of job competency for tour employees. Specifically, domestic employees' job competence level is diagnosed, and, based on job competence diagnoses, guides for competence enhancement are provided. We also operate an academic training system to enable our employees to grow into experts who, through completion of systematic training, can contribute to advancing the organization as a whole. We also support a certification-acquisition system to encourage our employees to obtain international/national licenses in the purchase, quality, management, and finance sectors.

Development of global human resources

Samsung SDI operates various language programs to proactively support its employees who wish to develop themselves in the era of globalization. We also operate an International Dormitory to provide global competence enhancement programs aimed to integrate language, business, and culture through education in foreign languages, soft skills for business, and diverse cultures. Samsung SDI also runs regional expert programs as a core course for the development of global leaders. We provide support to enable employees to have language training for three months and conduct field studies for one year so that they can become sufficiently competent to fulfill their responsibilities if they are sent to pertinent areas overseas. Based on employee performance rating and their contribution to Samsung SDI, most effective employees are selected and then sent for annual training. In 2017, we sent regional experts to various places in the world, including China, Germany, Hungary, and India, where they are meeting their obligations based on corporate support for language study and research.

Recruitment and development of overseas masters and doctoral degree holders

To enhance its global competitiveness and to expand its overseas markets, Samsung SDI also explores excellent human resources in advantageous areas world-wide to attain strategic business strongholds. We also provide mentoring programs to new employees on a continual basis. In particular, we regularly post overseas job openings, recruit new employees on campuses in the Americas in order to select excellent Korean R&D personnel studying overseas, and make continuous efforts to secure foreign engineers.

Establishment of Closed Loop Supply Chain for Resource Recycling

04 Recycling

What are important issues?

Effective use of resources and the resultant reduction in detrimental environmental impact have recently emerged as salient environmental issues while securing rare minerals used as raw material looms large amid a rising demand for batteries. Accordingly, we are requested to establish a Closed-Loop* System for the reuse of raw materials.

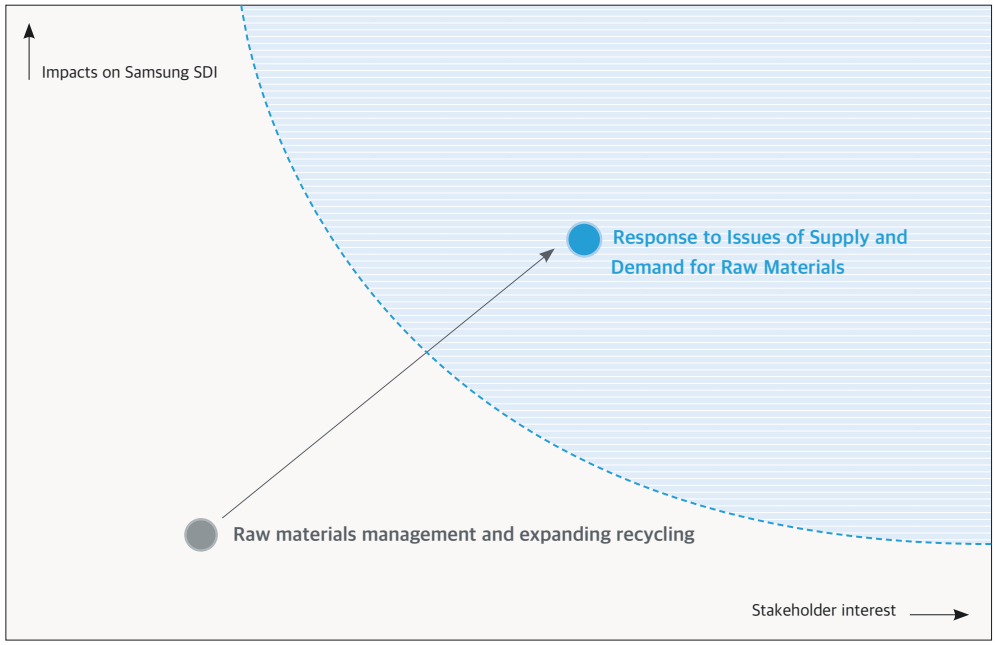
* Closed-Loop: A system aimed to reuse metals extracted through recycled waste batteries as raw materials for the production of new products

Our status

Samsung SDI seeks to save resources and to stabilize the supply of raw materials through the expanded application of recycled materials. To this end, we endeavor to secure stable channels by exploring recycling companies required to establish the Closed-Loop System.

Our evaluation

According to the results of the materiality assessment in 2017, the 'Response to Issues of Supply and Demand for Raw Materials,' classified as a general issue in 2016, has emerged as a high material issue.



Our impact boundary

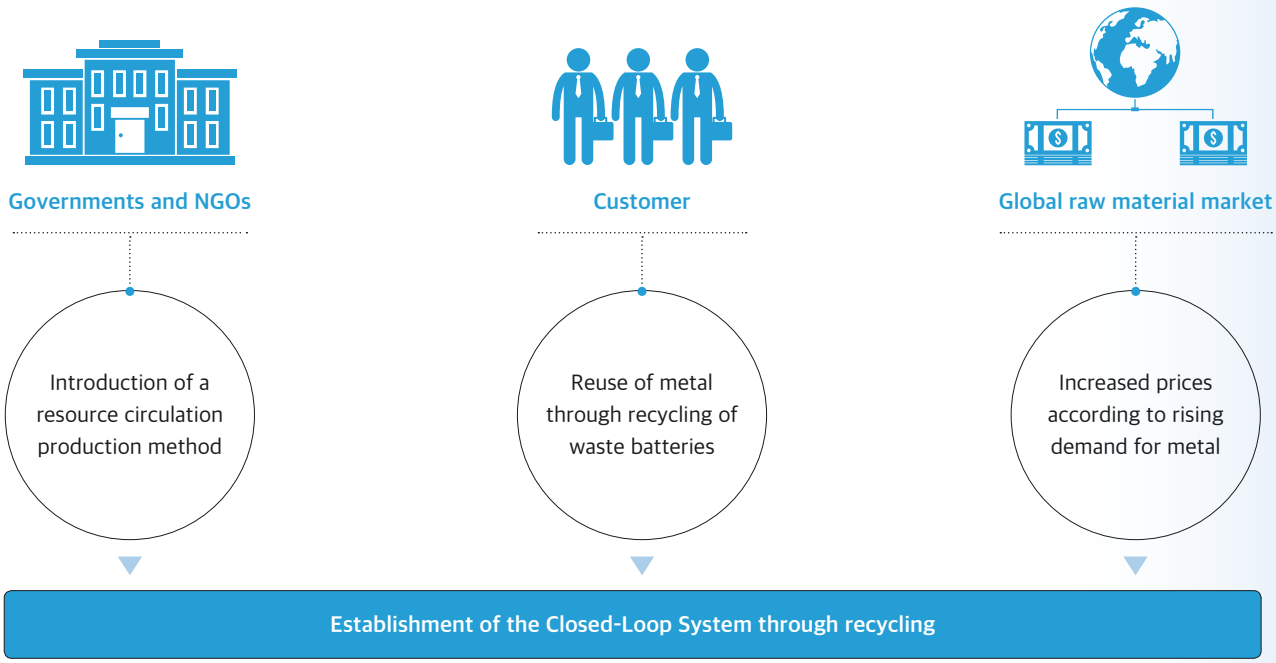
Stakeholders who should be taken into account with regard to recycling are 'local community' and 'the government.' In particular, with an increase of social demand for the fulfillment of corporate environmental responsibilities corresponding laws and regulations have been strengthened, and these changes and developments are expected to have a strong impact on determining the direction of business activities.

Our performance & future plan

We aim to consistently explore and expand competitive recycling companies. In the long term, we plan to strengthen our strategic partnership with customers, take back companies, and recycling companies, as well as to secure some raw materials through the recycling process.

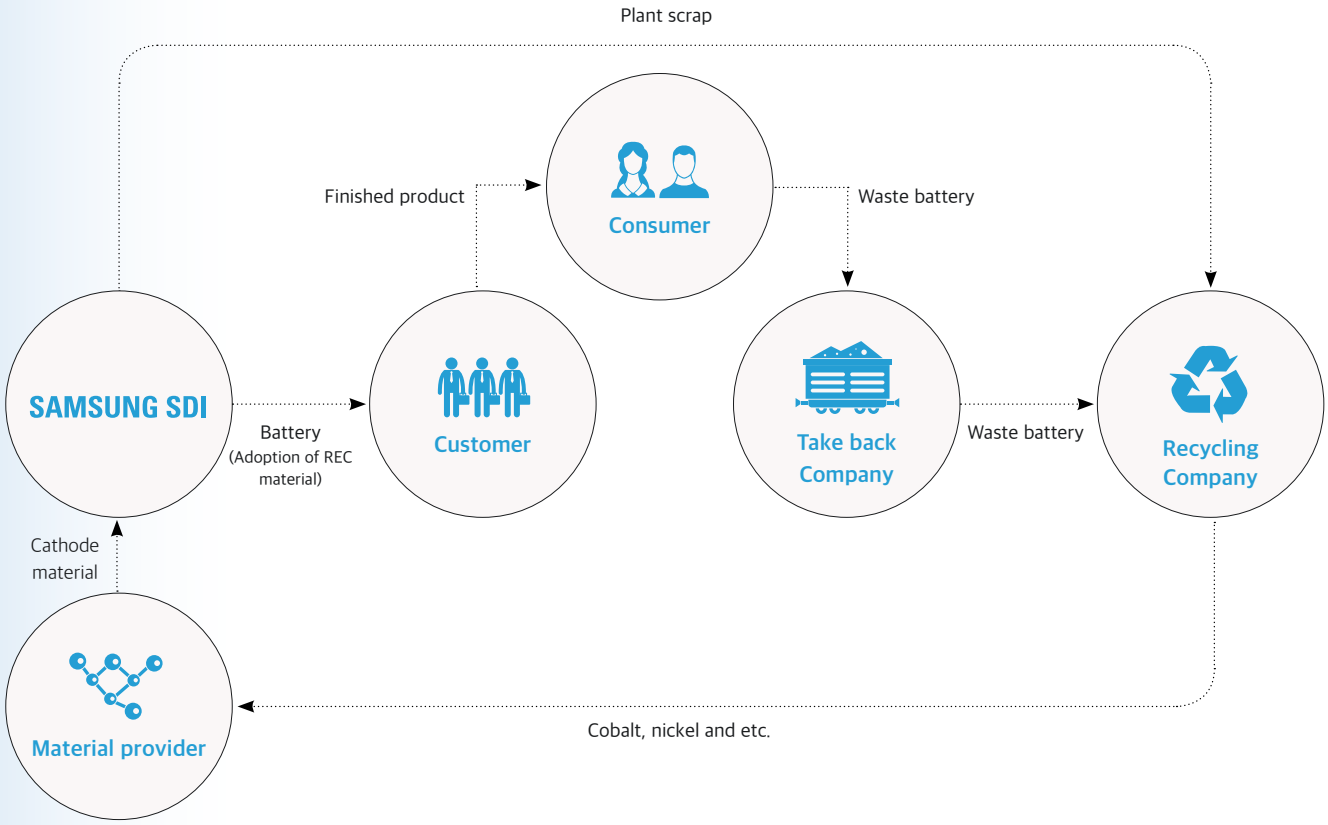
Purpose of implementation

As the waste of resources aggravates environmental contamination all over the world, a growing number of governments and NGOs request a 'resource circulation production method.' Global clients demonstrate strong interest in the Closed-Loop System aimed to apply metal extracted through recycled waste batteries to new products. In the meantime, demand for metal (cobalt, lithium, and nickel) used in manufacturing batteries continuously grows, resulting in a rise in the prices, and the resultant supply and demand risk increases as well. In this context, in order to respond to resource-circulation-related requests made by customers and civic societies and to diversify suppliers of core raw materials, Samsung SDI pushes for the establishment of a recycling eco-system.



Resource Take back Process

There are two ways to take back waste batteries for recycling. First, scraps generated in the process of manufacturing products in a factory are taken. Second, waste batteries are taken back in the process of disposal after having been used by consumers. Waste batteries taken back are then sent to recycling companies to go through shredding and chemical treatment before being recycled as metal materials, including cobalt and nickel. In cooperation with Small-sized Li-ion battery clients, automotive battery and ESS clients, and recycling companies, Samsung SDI plans to establish strategic cooperative relationships for the introduction of the Closed-Loop System by installing a waste battery take back system.



A trusted first-rate company
achieving shared growth
along with partners

05
Sustainable Supply Chain

What are important issues?

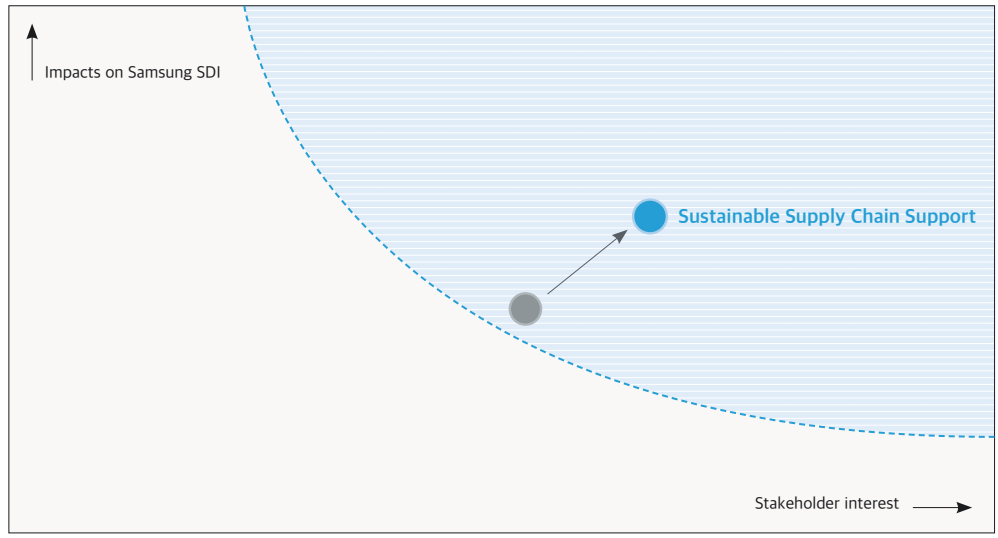
As corporate competition expands from rivalries among enterprises to contests among supply chains including partners, strong partnerships for fair and transparent shared growth, along with effective supply chain management, become urgently needed.
In addition, as stakeholders, including customers, investors, and civic societies, strongly request fulfillment of social accountability from the supply chain, management of a sustainable supply chain is recognized as an important factor in corporate competitiveness.

Our status

In an effort to improve the sustainability of the supply chain, Samsung SDI employs a systematic strategy. Specifically, we explore highly competent partners and continuously monitor and moderate the economic, social, and environmental risks of partners. In order to create a shared growth culture, we also operate diverse programs. Regarding conflict minerals that have emerged as an important global issue, we oganize dedicated human resources to conduct consistent management and respond to human rights issues within the supply chain.

Our evaluation

Following a materiality assessment of Samsung SDI stakeholders conducted in 2017, 'Sustainable Supply Chain Support' has emerged as a high material issue. In this respect, this part includes a 'Responsible Mineral Sourcing' Issue that Samsung SDI deems to be internally important.



Our impact boundary

Samsung SDI's main supply chain is partner supplying raw materials used in the production of batteries and electronic materials. Samsung SDI provides diverse support activities aimed to raise competitiveness by establishing agreements on shared growth with primary and secondary partners, offering financial and technological support and training and sharing accomplishments. With the growth of the need for the responsible sourcing of minerals, requests for fulfillment of sustainability and social responsibilities are spread throughout the supply chain of subsidiary materials.

Our performance & future plan

Samsung SDI also plans to expand and implement various programs in order to establish sustainable developmental relationships with partners in the supply chain. We will strengthen monitoring and prevent related risks from occurring in an effort to proactively respond to social responsibility issues on the supply chain.

KPIs	Targets in 2017	Performances in 2017	Fulfillment	Targets in 2018
Financial support (100 million KRW)	Continued expansion	378.9	Achievement	Continued expansion
Group and online training (Persons)	1,030	905	-	1,100
S-Partner Certification (Case)	100	90	-	100

Purchase policy

Samsung SDI establishes and operates a purchase policy for the introduction of a virtuous ecosystem for coexistent cooperation with partners. All purchase contracts are concluded based on four practices namely, 'Desirable Establishment of Contracts,' 'Selection and Registration of Partners,' 'Installation and Operation of Internal Deliberation Committee,' and 'Issuance and Preservation of Documents.' Golden rules on social responsibility for the supply chain of partners were established to obligate all present partners to comply with them. Partners violating these regulations are requested to rectify the situations; furthermore, if violations continue, limitations are imposed on future transactions.

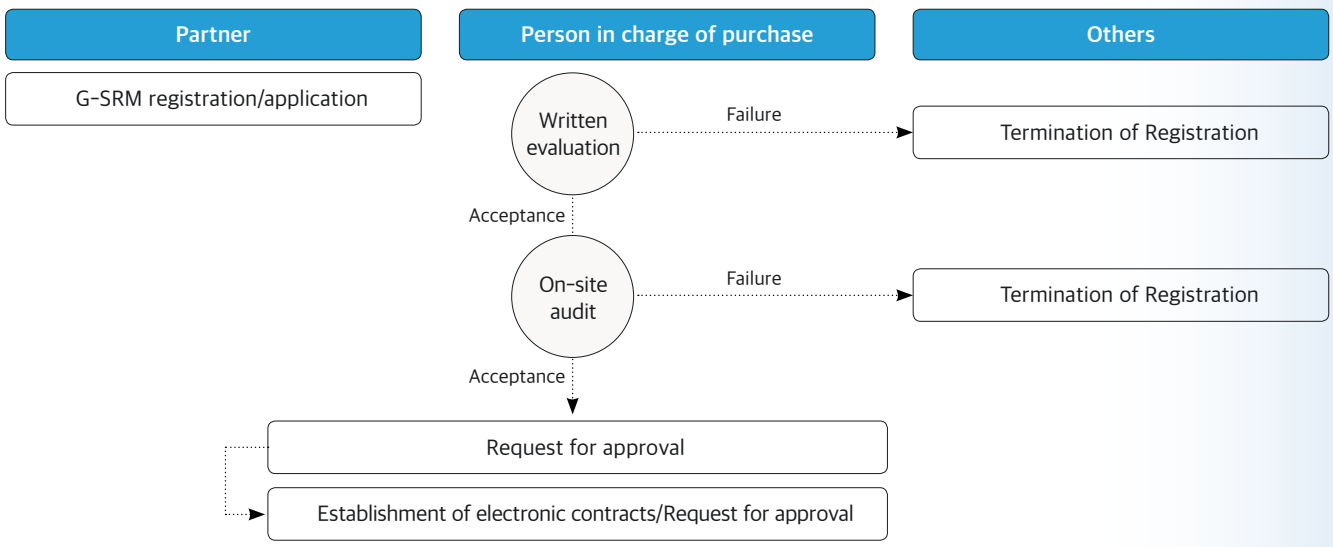
The current state of the supply chain

Samsung SDI divides partners into primary, secondary, and tertiary partners for management. Primary partners supply raw materials and components used in the components and products manufactured by Samsung SDI, while secondary and tertiary partners provide raw materials and subsidiary materials to primary partners.

Selection of fair partners

Samsung SDI includes the selection and registration of partners in our four practices for purchasing team and discloses them on its website. Written evaluations are performed, and due diligence on pertinent companies in the process of selecting and maintaining partners is executed. We also ensure transparency and equitability in non-financial risks, including safe workplace environments and human rights, as well as financial position, production capacity, and quality. In an effort to continuously manage the risks that might occur in the supply chain, we also equest the signing and submission of a new 'Declaration of Compliance on CSR.'

● Partner selection and registration process



Operation of Subcontracting Deliberation Committee

In order to deliberate on the equitability and legitimacy of subcontracting transactions at a certain level or higher, Samsung SDI also holds a monthly Subcontracting Deliberation Committee Meeting. The deliberation committee consists of members of the Compliance Support Team and Purchase Team and discusses equitability in the process of making contracts and determining prices, as well as the possibility of infringing related laws and regulations, including the Subcontracting Act. Based on the discussions of the deliberation committee, matters that might violate laws and regulations are remedied, and, if employees made intentional or material mistakes, punitive measures are applied depending on the seriousness of those violations.

Establishment of channels to communicate and share information

Samsung SDI controls the new registration and management of partners through operation of a partner web portal (SRM) which provides a communication channel where information regarding various issues, such as regulation on hazardous substances and conflict minerals, is shared. In order to collect information on complaints and shared growth from partners through our website, as well as to enhance the tracking of illegalities, corruption, irregularities, and unfair transaction issues, Samsung SDI has also installed 'Shinmungo' for Partners (Compliance Reporting System).

Shared growth promotion system

Based on vision for 'shared growth into a global leader through cooperation for co-prosperity,' Samsung SDI pushes for three main assignments: 'support for enhancement of competitiveness,' 'intensification of fair transaction process,' and 'reinforcement of cooperation in future technologies.' We have Coexistent Cooperation Office under Purchasing Strategy Group for the systematic pursuit of assignments.

● Three major project

Support for enhancement of competitiveness	• Support for generation of the results by partners • Support for cooperation of the secondary and tertiary partners • Expanded support for consulting
Enhancement of fair transaction process	• Prevention of unfair transactions • Introduction of the compliance management control system • Establishment of open communication channels
Enhancement of cooperation in future technologies	• Facilitation of cooperative assignments • Expanded support for the development of specialists • Enhanced protection for partner technology

Support for enhancement of competitiveness

Aiming to enhance its partners' competitiveness, Samsung SDI operates diverse assistance programs. Among other initiatives, we provide financial assistance and sales outlets in addition to tailored specialized consulting. Through various forms of financial assistance, such as industrial innovation assistance, shared funds, and coexistent payment system, we in addition to primary partners, also expand the scope of assistance to the secondary and tertiary partners.

Introduction of shared growth culture and establishment of fair transactions

In 2017, Samsung SDI held its 21st 'Shared Growth Day' Event, a channel of communication with partners. The event was attended by various stakeholders, such as employees in charge of related departments, CEOs of partners, and the Chairman of the Shared Growth Committee; the main aim of the event was to share the innovations of partners and to reward excellent partners. We also introduced a shared growth culture by pushing for 'Purchase Consulting for Partners', designed to give partners a chance to expand their customer base, and organizing 'Partners' Excellent Products Exhibition' so as to promote excellent technologies by partners. In addition, we also conduct preliminary prevention activities against unfair transactions for the proliferation of a fair transaction culture throughout the supply chain.

Technology support and protection

In an effort to secure a future growth engine for partners, we also carry out joint cooperative assignments in cooperation with partners. For instance, in 2017, we conducted diverse cooperative assignments, including 'Public-Private R&D Project' and 'Purchase Performance-Sharing System.' Samsung SDI installed a Technology Deposit System by which the Corporate Partnership Foundation could protect its partners from patent infringement. We also introduced 'Certification of Original Document of Trade Secrets' for the protection of information on technology and management by supporting the defrayal of costs incurred when registering information. On top of that, in order to develop specialized researchers with partners, Samsung SDI also expands support for advanced job training and the recruitment of specialists, as well as provides customized training activities for consultancies.

S-Partner System

Samsung SDI performs self-diagnosis and on-site audits of CSR risks in the supply chain in terms of human rights/labor, environment, safety and healthcare, ethics, and management system by operating the S-Partner System. In particular, we have zero tolerance for such important items as child labor, compulsory labor, pollution emission, and environmental destruction; accordingly, we also requests our partners to fully comply with the laws and regulations against these issues.

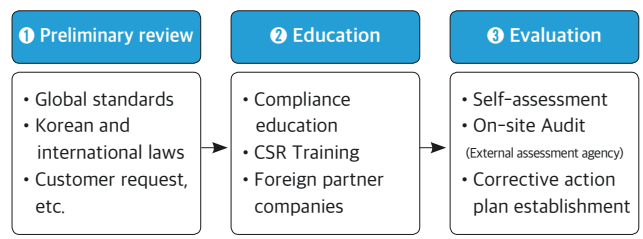
● Audit items

Human rights and labor	Labor Principles and Procedures, Freely Chosen Employment, Prohibition of Child Labor, Working Hours, Wages and Benefits, Humane Treatment, Non-Discrimination, Living Conditions
Environmental	Environmental Management, Accountability and Responsibility, Environmental Principles and Procedures, Environmental Permits, Pollution Prevention, Waste Water and Solid Waste, Air Emission, and Management of Hazardous Substances within Products
Health and Safety	Occupational Safety and Machine Safeguarding, Emergency Preparedness, Occupational Injury and Physically Demanding Work, Industrial Hygiene
Management system	Health & Safety and Environmental Management System, Health & Safety and Environmental Management System Factors, and Business Continuity Management
Ethics	Principles and Procedures, Business Practice and Management System

Evaluation process

To provide information on relevant Korean and international laws and regulations, global standards, corporate requirements, and the S-Partner Operation Process, Samsung SDI operates annual partner training courses related to corporate social responsibility. Every two years, we conduct on-site audits of new partners and existing partners that supply raw materials. For non-compliance and violations detected during on-site audits we request submission of a Corrective action plan within one month, and if violations are detected in the matters that are subject to mandatory compliance, or if it records less than 80 scores (70 scores in case of new partners), a re-audit is requested to be completed within three months.

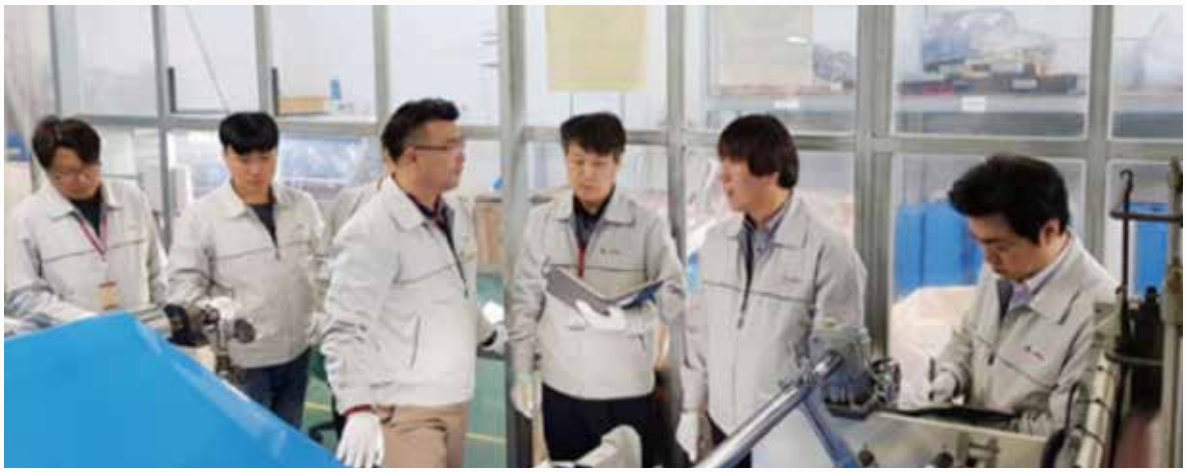
● S-Partner Process



BUSINESS CASE

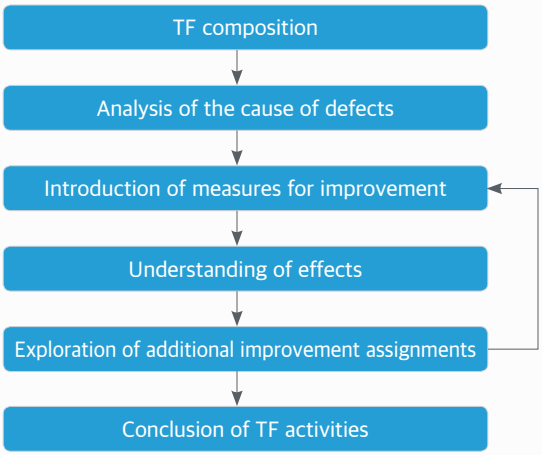
Innovation Task Force (TF) in cooperation with partners

Beyond just coexistent partnership, Samsung SDI maintains cooperative relationships with partners. These relationships are based on the value of shared growth by emphasizing 'One Can Go Further Together'. Samsung SDI explores and shares annual excellent innovations attained by partners. In 2017, Korea Innotech was selected as an excellent case for comprehensively improving efficiency by 18% through innovative TF activities conducted in cooperation with Samsung SDI.
Korea Innotech manufactures various components related to batteries, and Samsung SDI has maintained its partnership since 1999. Presently, Korea Innotech's main item is insulation boards used in making cylindrical batteries.The insulation board is a thin plate inserted into a battery and a component used in a short-circuit occurring when the inner components of a battery touch one another. Recently, in order to raise the efficiency of production of the insulation boards, Korea Innotech found it necessary to conduct systematic management on the rate of defects. Responding to the seriousness of the problem, Samsung SDI dispatched a quality specialist to form a Production Innovation TF before figuring out and resolving the problem.



The Production Innovation TF was responsible for figuring out the cause of the defects and correcting them. To resolve the cause of process defects, a sensor and a monitoring system that can maintain the thickness of an insulation board at a certain level were installed, and a contact-type temperature meter that helps keep the temperature constant was introduced. In addition, improvements were implemented for about four months by upgrading the work environment, inventory management, and logistics system.
As a result, process defects were reduced by over 50%, and the comprehensive facility efficiency improved by 18%. Four long-term projects and three projects for standardization and habituation were additionally explored to set related goals and to create action plans. Through these efforts, we plan to solidify our business.

Innovation TF Process



Responsbile Mineral Sourcing

The challenge of Transparency in Cobalt Mineral

Company Policy & Management System

Over the past two years Samsung SDI improved its human rights due diligence policies and practices explicitly for cobalt, in compliance with OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. Since 2017 our policy has been publicly disclosed in our website and fully detailed in our progress report. The policy is regularly communicated -and submitted for improvement- over a number of training sessions to all our stakeholders, including our executive management, our purchasing department, our investors and our suppliers. We are far from being perfect, but our policy improvements started showing some results this past year with an encouraging number of smelters volunteering to undertake third party audits.

Risk Assessment

In 2017 we have demonstrated that it is possible to map the factual circumstances of the supply chains of cobalt, although the biggest challenge that we have encountered is to link specific supply chains with the identified risks associated with extraction, trade, handling and export of cobalt.

Risks Identified

- Child Labour & Human Rights Abuse
- Health & Safety Protection
- Environmental Pollution
- Bribery

RCI
RESPONSIBLE COBALT INITIATIVE

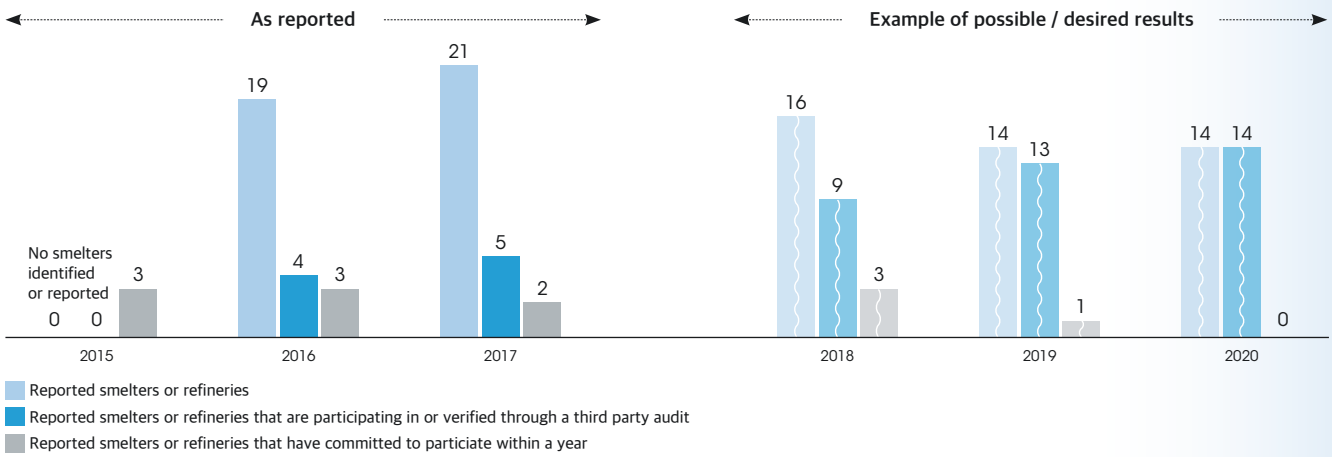
Risk Response

We are at the onset of the design and implementation of a strategy to respond to the identified risks in order to prevent or mitigate adverse impacts. Being an active founding member of the RCI, our aim is to shape a risk mitigation strategy that spans across the industry and have a long lasting effect, by seeking the support of our automotive and consumer electronics customers, as well as our suppliers.

Audits

We are fully devoted to push all the cobalt smelters that fall under our supply chain to undertake. Third-party audits and we are hoping that by the end of 2018 several will complete the audits.

Year over Year progress towards participating cobalt smelters and refiners in Samsung ADI cobalt supply chain.



Public Reporting

Samsung SDI was the first and only battery company in the world to publish a progress report on responsible cobalt supply chain in 2017. As anticipated in the above mentioned report, we have committed to report publicly on supply chain due diligence policy and practices on a yearly basis. Starting from this year we have incorporated our progress report on cobalt and our list of smelters as sections of this sustainability report.

* PROGRESS REPORT ON RESPONSIBLE COBALT SUPPLY CHAIN : http://www.samsungsdi.com/upload/download/sustainable-management/Samsung_SDI_-_2016_Progress_Report_on_Responsible_Cobalt_Supply_Chain_V12.pdf

Reported Countries of Origin

Based on the information provided by Samsung SDI suppliers, smelters and refiners, as well as from other sources, Samsung SDI reasonably believes that the countries of origin of Cobalt contained in its products include the countries listed below.

The origin of cobalt
01 Australia
02 Democratic Republic of Congo (DRC)
03 New Caledonia
04 Madagascar
05 Russia
06 Finland

Reported Smelters and Refineries

Based on the information provided by Samsung SDI's suppliers and its own best faith due diligence effort from January 1, through December 31, 2017, Samsung SDI believes that the facilities that may have been used to process the Cobalt contained in Samsung SDI's products include the smelters and refiners listed below.

Smelters and Refiners	Location
01 Freeport Cobalt Oy (Kokkola)	Finland
02 Ganzhou Tengyuan Cobalt Industrial Co., Ltd.	China
03 Ganzhou Yi Hao Umicore Industries Co., Ltd. (GYHU)	China
04 Jingmen GEM	China
05 Haopeng	China
06 Huayi	China
07 Jiana	China
08 Jiangmen Chancsun Umicore Industry Co., Ltd. (JUC)*	China
09 GEM (JIANGSU) Cobalt Industry Co., Ltd.,	China
10 Jiangsu Xiongfeng Technology Co., Ltd	China
11 Jiangxi Jiangwu	China
12 Jiayuan Cobalt	China
13 Lanzhou Jinchuan Advanced Materials Technology Co., Ltd.	China
14 Maolian	China
15 Murrin	Australia
16 Sherritt	Madagascar
17 Tengyuan	China
18 Umicore Olen	Belgium
19 Zhejiang Huayou Cobalt Co., Ltd**(not smelted through CDM)	China
20 Mechema	Taiwan
21 Norilsk Nickel	Finland

Response to Graphite Issue

We have received several grievances and read numerous reports about potential threatening conditions associated with the mining and processing operations of Chinese graphite suppliers.
Lithium batteries' anodes can employ either artificial, or natural graphite, or a combination of both. While artificial (synthetic) graphite is a by-product of oil refining processes, most of the environmental problems are linked to the extraction and processing of natural graphite (airborne dust and chemicals leaking into local waters).
In 2017 we have audited again our Chinese Natural Graphite suppliers but we haven't found any significant violation to our suppliers' code of conduct. We will keep on searching violations by monitoring our suppliers very closely. We have already scheduled audits of Chinese Natural Graphite suppliers for 2018.

Policy for Conflict Minerals and Improvements

In an effort to eradicate concerns on utilization of 3TG minerals (Tantalum, Tin, Gold, and Tungsten) unethically extracted in the Democratic Republic of Congo and adjoining countries, Samsung SDI establishes conflict minerals management system within partner company's web portal(SRM) and conducts investigations into utilization of a conflict minerals by partners and information on smelters and the country of origin through CMRT (Conflict Minerals Reporting Template) within the system. In 2017, Samsung SDI selected several partners utilizing 3TG and conducted on-site audit in order to validate reliability of information shared by partners. The company delivered Samsung SDI's policy on responsible mineral sourcing through training given to partners. It requested partners to conduct transactions only with the CFSP (Conflict-Free Smelter Program)-certified smelters that do not utilize conflict minerals. As of the end of 2017, all smelters of 3TG used in Samsung SDI products completed CFSP certification.

● Conflict minerals management process

Policies shared with partners and increased public awareness

- Acceptance of Conflict Minerals Non-Use Compliance Agreement from primary partners
- Operation of educational programs for partners

↓

Audit on conflict minerals in the supply chain

- Audit on conflict minerals for primary partners (Smelters, countries of origin, etc.)

↓

Review and due diligence on conformity as a result of audit

- Review on conformity of presented information
- Due diligence on major partners

↓

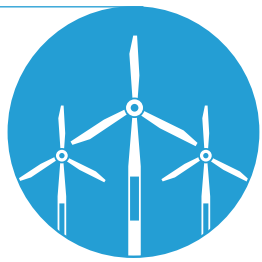
Request for conversion of CFSP-certified smelters and F/UP

- Request for conversion of CFS non-certified smelters into certified smelters

PREVIOUS ISSUE IN 2016

3.52 billion KRW

Investment in saving energy



8.2%

The ratio of female managers

97%

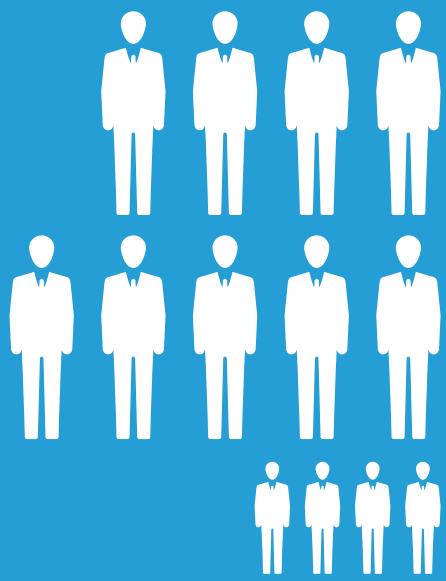
The ratio of employee participation in social contribution

The number of scholarship recipients of 'Talent Nurturing Company' (Accumulated)

Unit: Persons

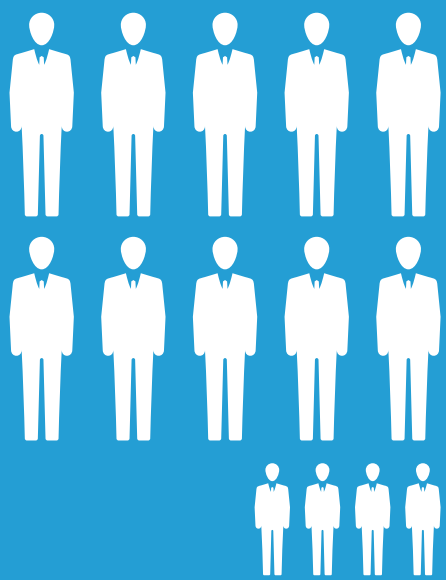
2016

94

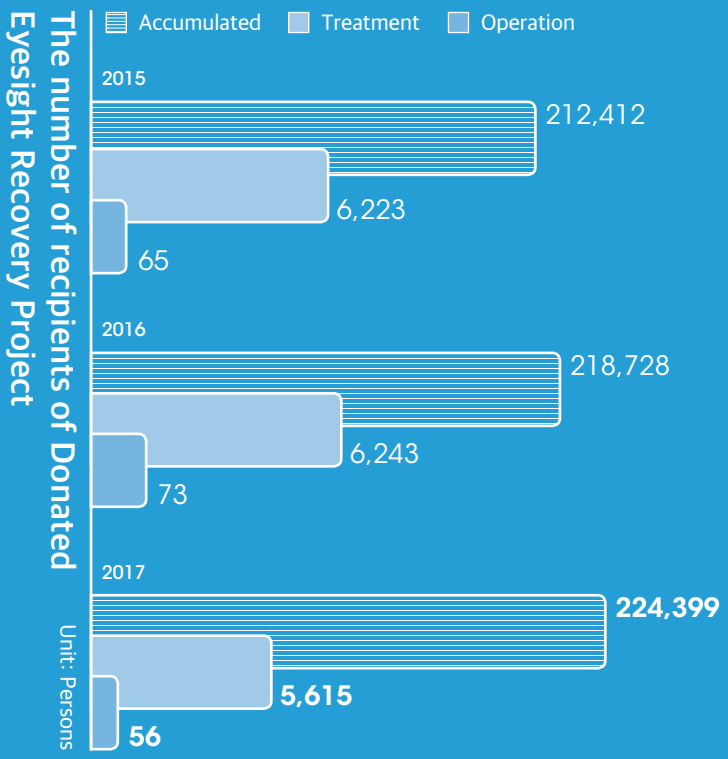


2017

104

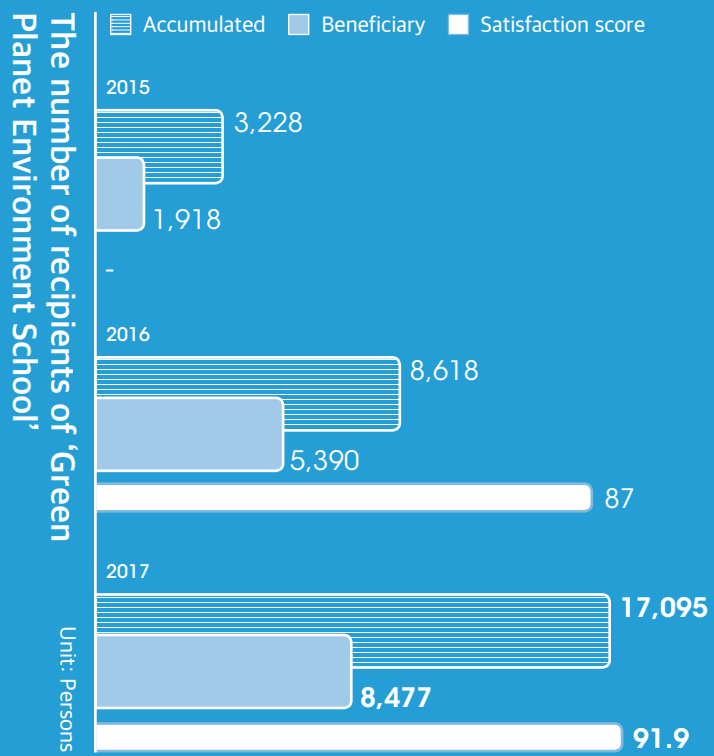


The number of recipients of Donated Eyesight Recovery Project



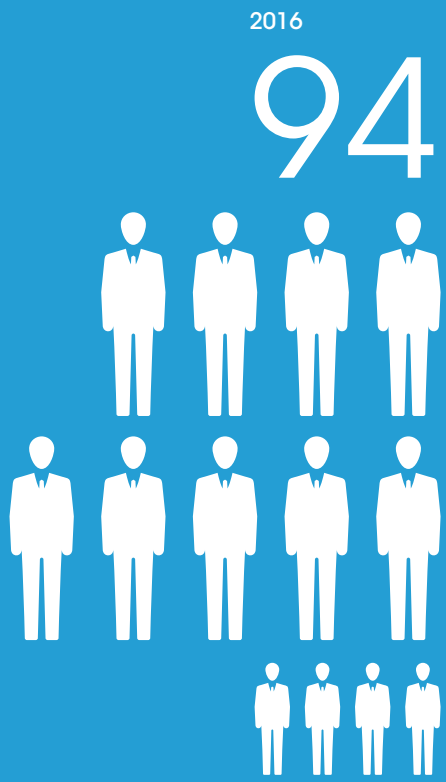
Unit: Persons

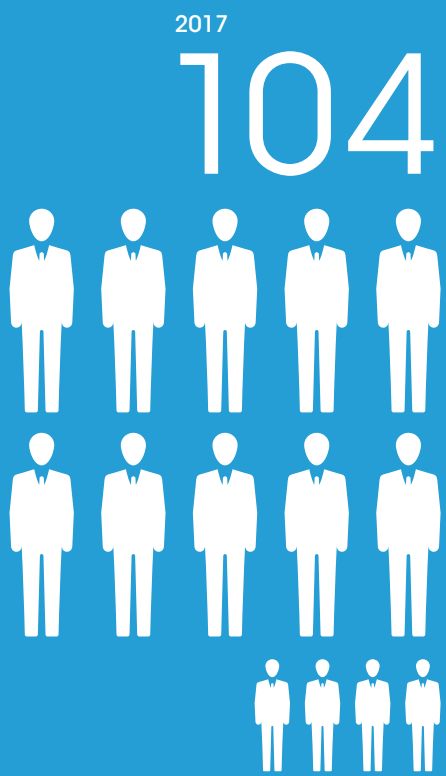
The number of recipients of 'Green Planet Environment School'



Unit: Persons

The number of scholarship recipients of 'Talent Nurturing Company' (Accumulated)





Unit: Persons

01

Creation of environmental value

LCA (Life Cycle Assessment)

Life Cycle Assessment (LCA) refers to the activities that evaluate the impacts of products on the environment in the entire process, ranging from extraction of raw materials to recycling after the use of the products. In accordance with LCA Principles as specified in ISO14040/44, we conduct LCA by collecting environmental information on energy and utility in the manufacturing process and for the components. Aiming to assess environmental impacts in the manufacturing process, we classify Bill of Material (BOM) information to indicate components of products and the quantity of energy consumption in the Integrated Energy & Greenhouse Gas System (s-GEMS). We also collect information on atmosphere, water quality, and wastes by product from the internal EHS system and conducts LCA in the partial lifetime cycle from production to shipment.

● LCA Process

LCA	Analyses of products and manufacturing process	• Analyses of battery production process • Definition of process input/output
	Data collection	• Input (raw materials, packing material, power, energy, and industrial water) • Output (output, wastes, atmosphere and water system discharge) • Transport information, etc.
	Data processing	• Validation on collected data (Calculation errors, correlation, etc.) • Data integration by unit process
	Establishment of environmental impacts	• Analyses of battery production process • Definition of process input/output
Echo design		• Generation of major environmental issues related to products based on LCA results • Generation of improvement factors by life-cycle stage

The current state of progress

In 2017, we pushed for an improvement of the IT system in order to conduct LCA through the use of the existing management information system. The improved system enabled conducting LCA on all mass-produced products and instantly responding to customer requests in the development stage. In 2017, at the request of its clients, we conducted LCA on three models.

Future directions

As the establishment of the system was completed in 2017, we plans to push for optimum LCA by drawing consistent improvement assignments. The results of environmental impact assessments generated from LCA will be used in the development of products on a preferential basis so that the environmental impacts of the products can be improved.

Energy saving in workplaces

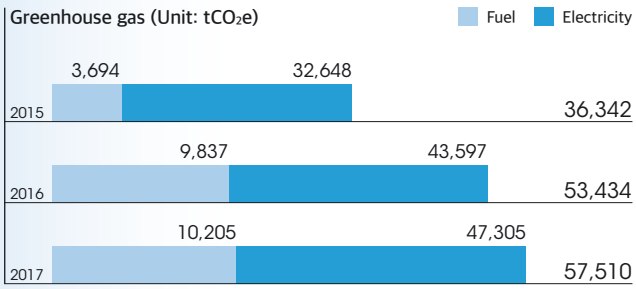
Advancement of energy saving activities and management

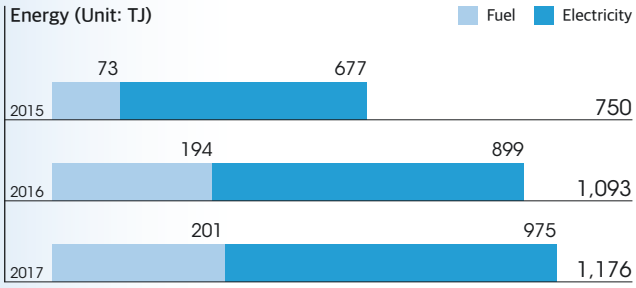
In 2017, we formulated an Energy Saving TF Team in connection with entire departments before conducting activities to save energy. This team strengthens energy-saving activities by standardizing operating methods of idle/stand-by facilities. we also set energy-saving targets by department, as well as conduct an Inspection Council Meeting under the supervision of management every other month to check on progress and to reward excellent cases. We expanded the Energy Management System (s-GEMS) into overseas workplaces to optimize the quantity of energy consumption and to better ensure validation of energy-saving effects. Regarding the quantity of energy consumption, external monitoring and verification were conducted.

Accelerated introduction of green energy

In an effort to decrease environmental impacts generated in the course of using energy in workplaces focused on accelerating the introduction of green energy, we gradually increase the used portion of green energy. As of 2017, renewable energy accounted for about 79% of the entire electric use of Samsung SDI Austria. We plan to induce all workplaces in various countries in the world to introduce green energy in the future.

● The quantity of reduction in greenhouse gas and energy





Response to domestic and international laws and regulations

Participation in the emission trading system

In an effort to proactively respond to the regulations in response to global climate changes, Samsung SDI has participated in an emission trading system introduced in 2015. In this respect, we are equipped with a carbon management system (MRV/ Monitoring, Reporting & Verification) so as to systematically manage goals based on the IT system (s-GEMS). In 2018, we plan to provide practical education on greenhouse gases to personnel in charge of greenhouse gases at home and abroad, aiming to improve managerial efficiency.

Response to the Carbon Disclosure Project (CDP)

The Carbon Disclosure Project (CDP) is a non-profit organization requesting that major listed firms in various countries provide environmental management information on greenhouse gases and energy on behalf of financial investment institutions all over the world. Samsung SDI transparently discloses this information on its climate change strategy and greenhouse gas reduction activities through CDP. In 2017, based on our disclosure of information through CDP, Samsung SDI was rated with 'A-.'

Industrial water management

Concerns about the possibility of reckless use and depletion of water resources are growing. Therefore, efforts have been made to recognize the importance of managing of water resources and their more efficient use. In addition, waste water discharged from plants goes through primary treatment in waste water purification facilities and is then sent to sewage treatment facilities operated by the government. Production sites in Ulsan and Malaysia directly discharge it.

Reduction in emission of pollutants and wastes

Samsung SDI is increasing the rate of recycling by turning wastes into resources instead of incinerating or reclaiming them in the process of production. In particular, all cobalt and nickel wastes resulting from the process of battery production are treated by recycling specialists. In 2017, a total of 72,729 tons of waste were produced, and of them, 69,417 tons (95%) were recycled. As for potential contaminants, the government applies stricter internal standards than legal standards.

● Targets for environmental efficiency

Category	Unit	Base year (2015)	Target (2020)
The quantity of greenhouse gas emission per unit	tCO_2e	1,099,587 (2020 BAU)	Reduction by 30% or more against BAU*
The quantity of utilization of industrial water	1,000 tons/ 100 million KRW	0.11	Improved by two times or more
The quantity of utilization of hazardous materials	Ton/ 100 million KRW	0.43	Improved by two times or more
The quantity of emission of wastes	Ton/ 100 million KRW	0.97	Improved by two times or more
The rate of recycling of wastes	%	96	Maintenance of 95% or more
The rate of reclamation of wastes	%	4	Maintenance of 5% or less

* Targets for reduction in greenhouse gas BAU pertain only to energy business.

02

Facilitation of Respect for Human Rights and Communication by Employees

Human rights management and prohibition of discrimination

With the growth of corporate social interest in human rights management and respect for diversity, individual companies are requested to fulfill their responsibilities to respect human rights and diversity befitting global standards. Accordingly, partners and clients are urged to prevent violations of human rights. Recognizing the importance of human rights management, Samsung SDI thoroughly complies with ILO Conventions and labor laws in those countries where we conduct business. We also lay down the principles to prohibit child labor and forced labor in rules on management and employment before thoroughly complying with them. The results of monitoring on global workplaces and partners in accordance with RBA (Responsible Business Alliance), a global sustainable management initiative, showed that there were no violations of the policy prohibiting of child labor and forced labor and discrimination in 2017.

Human rights management in domestic and international workplaces

To protect and strengthen the human rights of its employees, Samsung SDI diagnoses and evaluates labor and human rights three to four times a year. We examine the areas and workplaces vulnerable to human rights abuses, as well as the factors that might lead to infringements of human rights. As for human rights-related situations that require improvement, which were found in the process, mid-to-long-term assignments were selected for advancement. In 2017, a diagnosis was made of human rights in China (Xian and Tianjin) and South-East Asia (Malaysia and Vietnam) to explore a total of 13 cases in need of improvement before measures were taken.

Fair performance evaluation and compensation

All Samsung SDI workplaces, both at home and abroad, comply with the minimum wage laws imposed by the countries involved and do not engage in gender discrimination in terms of wages. To encourage employees' motivation for work, we also adopt the principle of performance-based compensation. We also evaluate performance against annual targets set for each employee, as well as assesses competence required by position to differentially provide incentives according to the evaluation results.

Development of female leaders

To enable female employees to be competitive and demonstrate their expertise to the fullest measure and develop themselves in their workplaces, Samsung SDI guarantees gender equality in all areas, including the personnel management system and performance rating. We have a maternity protection lounge in each workplace to offer a resting space for women. In addition, we operate childcare centers in all domestic workplaces to help female workers get qualified help with their child-rearing duties and thus be able to focus on their work. We also aid maternity by adding 12 months to 12 months of legally mandated childcare leave if desired.

Works Council

The Works Council meetings composed of representatives of workers and an equal number of corporate representatives conducts both quarterly consultative meetings and ad-hoc meetings. In addition to a management system for human resources and labor focusing on wages and working conditions and improvement of working environments, the council provides consultations on workers' rights protection, as well as on the issues of workers' safety and healthcare. In addition, if it becomes necessary to conduct consultations between labor and management due to material managerial changes, we put out a notification in advance in accordance with the laws and regulations of the involved countries, and any changes made in the Works Council meetings are instantly communicated to all employees on a regular basis. These meetings also serve as a communication channels within the organization to figure out concerns of their workers and to resolve their complaints.

A channel for the resolution of complaints

Samsung SDI endeavors to resolve inconveniences to employees and protect their human rights by listening to their concerns and by dealing with those issues in a reasonable way. We operate an online message board to resolve complaints, making it possible to offer anonymous tips and to create a pleasant work environment while thoroughly protecting the identity of informers. Due to these efforts, in 2017, we managed to improve 420 situations from 441 tips received through a complaint-resolution channel. It will more proactively collect opinions from employees and create a better working environment in the future.

03

Community Engagement and Development

Purpose of social contribution

Samsung SDI emphasizes the creation of shared value by effectively using employees' competence with a vision to create 'Company for a better valuable world.' We perform various social contribution activities, ranging from education for children and youths in local communities and support for the vulnerable to global environmental issues. We also take the lead in creating a better future by donating the talent of employees and sponsoring culture and sports activities. In 2017, a total of 4.0172 billion KRW, mostly focused on education and social welfare, were invested in domestic workplaces for social contribution activities. In 2018, we plan to focus on expanding and advancing social contribution projects that can contribute to resolving fundamental social problems instead of being preoccupied with donations, while inducing employees to proactively donate talent and take part.

Representative social contribution activities

Green Planet Environment School

As a creative leader of energy and state-of-the-art materials, Samsung SDI operates 'Green Planet Environment School,' an environmentally friendly energy education program. Green Planet Environment School is a training program dealing with the importance of environmental protection and energy use. Since 2011, our employees have taken part in the program as teachers in person and conducted various environmental education and training activities focusing on new renewable energy, global warming, and environmentally friendly vehicles. In particular, we further enhanced program reliability by acquiring certification from the Ministry of Education based on a self-developed educational course in 2015.

We operate 'Visiting Green Planet Environment School' for all primary schools in Gyeonggi-do for which it runs a summer camp and uses dedicated educational buses for children from low-income families in five areas of Korea. Owing to children's strong interest and parents' enthusiastic support, 8,477 students participated in the program in 2017, and a total of 17,095 students have benefited from the education through now.

Four implementation systems

Brand name	Recipients of benefits	Unit
We Dream School	Children·Youths	We sponsor education for children in local communities who have yet to benefit from advanced education and experience due to economic difficulties or a lack of resources and incentives.
We Dream Home	Sister Village	Sister Village provides support to people in local communities to create a healthy and warm environment and to help villagers to stand on their own feet.
We Dream Green	Environmental protection	We protect the Earth and the environment for the next generation and helps resolve social problems by creating environmentally friendly energy.
We Dream Global	Global	We perform various social contribution activities for local communities through participation of heads and employees of overseas corporations and fulfills our social responsibilities as a global company.

WE Dream School :: Children·Youths

Science Dream of Child (SDI) Science Classroom

Since 2016, Samsung SDI Suwon has operated an after-school Science Classroom for primary school students from low-income families. The children spend time in a local children's center for two hours once a month where they deepen their understanding of science and strengthen convergent and creative thinking through scientific experiences, producing things, and experiments that are not usually included in school curricula. In an effort to reduce the educational gap, we plan to continuously provide children from low-income families with a chance to benefit from scientific education in the future.

Sports School and Sports Competition for Disabled Students in Chungcheongnam-do

Cheonan Production Site established a MOU with Chungnam Provincial Office to conduct activities focused on promoting sports for 4,100 disabled youths in Chungnam Province from 2014 to 2018. We hold athletic meetings to select disabled youths with strong growth potential and provide support to help these youths develop into elite athletes through Sports School. Overall, the athletes nurtured in the SDI Sports School from 2014 to 2017 obtained a total of 193 medals in the National Sports Festival.

Dream Book Campaign

We operate an employee book-donation campaign to help children and youths from group homes to obtain diversified knowledge while growing up. If employees donate books that inspired them, or if they want to recommend books to children, we purchase as many books as the number of donated books and delivers them to children and youths in group homes nationwide.

❶ ❷ ❸

❶ Science Dream of Child (SDI) Science Classroom
❷ Sports School and Sports Competition for Disabled Students
❸ Dream Book Campaign

We Dream Home :: Community

Donated Eyesight Recovery Project

Since 1995, when we established an agreement with Siloam Eye Hospital, we have offered Donated Eyesight Recovery Project in order to help the poor who have difficulties in getting eye surgery and who are in danger of going blind due to financial difficulties. Mobile medical examination buses donated by Samsung SDI equipped with state-of-the-art medical equipment, such as operating microscopes and cataract surgery instruments, to visit rural provinces in mountainous areas suffering from a lack of such medical equipment. We also donate equipment for eye examination services. Up to now, a total of 224,000 people have benefited from these medical services. In 2017, a total 5,615 people received free examination services; of these, 56 persons had an emergency operation in a mobile operation bus.

Sister Village Activities in Rural Provinces (Direct Marketplace & Helping Framers)

Samsung SDI has established sisterhoods with 19 rural villages in Gyeonggi, Gangwon, Chungcheong, Jeolla, and Gyeongsang. We have our employees and their families visit them, get diverse agricultural experiences, including Farm Stay, and conduct volunteer activities to help farmers. On national holidays, We operate in-house direct marketplaces to explore sales routes for farmers and help increase revenues, as well as to provide the elderly living alone in sister villages with an opportunity to have cultural experiences.

Sharing 'Kimjang'

We conduct volunteer activities to show love for the vulnerable in local communities in the winter by sharing 'Kimjang' Volunteer Service. In 2017, local volunteer service providers in six workplaces took part in transferring the expertise in Kimjang (the traditional process of preparing and preserving kimchi) to employees who made kimchi for the first time. A total of 6,600 heads of kimchi made by the team of dedicated volunteer service providers were delivered to the elderly who live alone and to the welfare centers in local communities.

Fall Sports Picnic for Disabled Children

A fall sports picnic is held every year for disabled children with the Eunkwang Child Care Center in the playground of SDI Samsung Gumi. The fall sports picnic, where disabled children are matched one-on-one with employee volunteers and can enjoy themselves, is attended by a total of 150 people, including disabled local children, their families, teachers, and employee volunteers of SDI. This event helps to create a lot of fond memories. Celebrating its 12th anniversary this year, the fall sports picnic for disabled children has established itself as a representative social contribution event organized by Samsung SDI Gumi.

We Dream Green :: Environmental protection

Sharing Walk Festival

On the occasion of our foundation day, we organize an annual Sharing Walk Festival in order to ensure clean air to future generations. In 2017, we established a matching fund where money is saved based on the distance walked by employees before delivering the money to the Mongolian desert, the source area of fine dust and yellow dust, in order to raise a 'Forest of Hope in Asia.' In September 2017, we also planted 1,000 trees to create a windbreak in Tuv Aimag and Erdene Soum in Mongolia.

River caring campaign

To commemorate World Water Day on March 22, in cooperation with local communities, we conduct activities to purify the environment and improve the water quality of local rivers. In 2017, a total of 1,600 employee volunteers conducted environmental clean-up activities around workplaces and delivered 3,000 tumblers to help children in local childcare centers use water in an appropriate way.

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❶ Free Eyesight Recovery Project
❷ Sharing 'Kimjang'
❸ Fall Sports Picnic for Disabled Children

We Dream Global :: Global

Sisterhood relationships with underprivileged children abroad

Seeking to improve living environments for overseas children living in poverty, Samsung SDI sponsors one-on-one matches of company employees and 400 children. This helps poor children to grow up with the help of regular medical check-ups, free examinations and nutrients, and to benefit from quality education with donated school supplies.

Social contribution by overseas corporations

Major overseas Samsung SDI corporations conduct diversified social contribution activities to help develop local communities. For instance, Samsung SDI Malaysia promotes cultural experiences for children from low-income families and provides volunteer activities for emotional support and activities to improve perception in connection with local communities. Likewise, Samsung SDI Tianjin provides environmental protection education and volunteer services to primary school students. In addition, Samsung SDI Vietnam conducts tailored social contribution activities reflecting local characteristics while offering desired items to low-income families in local communities. Samsung SDI plans to expand global volunteer services offered by both domestic employees and overseas corporations.

Employee-participating volunteer services

Blood-donation campaign

In February each year, i.e. when a lack of blood supply usually occurs, we conduct an annual blood-donation campaign. In 2017, a total of 1,916 employees (i.e. 888 employees more than in the previous year) took part in the blood donation. The company collected 1,000 Blood Donor Cards from employees to donate to local trauma centers while continuously raising public awareness about the importance of blood donation.

Grand Volunteering Festival, in commemoration of Samsung SDI's foundation

Celebrating the 47th anniversary of its foundation in June 2017, Samsung SDI held a Volunteer Service Festival. The event featured diversified social contribution activities, including a 'Dream Plant Program' created to deliver fine-dust-removing plants to children from lower-income families, a 'Wall-Painting Campaign' created to enable employees to draw paintings on the dilapidated outer walls of primary schools and to help children have a safer and more pleasant school life. The 'Suit Donation Campaign' was created to help job-seeking youths from low-income families to overcome difficulties in getting a job.

Talent donation campaign

Samsung SDI provides proactive support to help employees make the most of their personal competence and working knowledge in donating their talent. The Badminton Club provides regular training for disabled wheelchair badminton, and the Mountaineering Club breathes new life into mountain-climbing activities with the participation of visually impaired local people. This also offers consistent volunteer services to living-alone neighbors through projects designed to improve the residential environment of severely handicapped people with the use of working knowledge and by operating study rooms in local childcare centers. Furthermore, members of the Photo Club of Samsung SDI Giheung have donated their talent in order to take 624 pictures of students with Suwon Seokwang School for yearbooks for 14 years since 2004. Employee volunteers accompanied students on a graduation trip to add special fond memories to their yearbook, and we installed a photo-taking booth at the graduation ceremony where students and their parents could sit for a commemorative photograph.

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❶ Establishment of a fund for 'Forest of Hope in Asia.'
❷ Blood-donation campaign
❸ Grand Volunteering Festival, in commemoration of Samsung SDI's foundation

APPENDIX

FINANCIAL DATA

Consolidated financial statements

(Unit: KRW)

	End of 46th	End of 47th	End of 48th
Assets			
Current Assets	4,773,880,158,248	3,958,265,726,800	3,605,075,720,088
Cash and Cash Equivalents	1,287,968,374,149	1,011,701,875,328	1,209,015,663,790
Account Receivable and Other Receivable	1,203,289,301,635	1,046,794,723,821	1,218,252,689,424
Inventories	749,950,201,656	729,058,574,260	966,571,644,365
Other Investment Assets	595,558,128,244	932,699,739,874	113,795,179,915
Other Current Assets	78,710,193,661	158,666,025,997	97,440,542,594
Non-current Assets Held for Sale	858,403,958,903	79,344,787,520	-
Non-current Assets	11,451,423,299,504	10,942,045,507,407	12,146,400,609,645
Account Receivable and Other Receivable	65,848,344,133	5,145,658,180	3,379,614,318
Investments in Associates	5,172,923,891,838	5,525,570,909,727	6,219,349,912,456
Tangible Assets	3,228,961,726,889	2,503,794,949,241	2,930,339,325,646
Intangible Assets	1,277,621,026,307	941,686,030,402	897,447,247,322
Real Estate Investments	228,181,655,070	145,683,976,159	149,914,778,172
Pre-paid Salary Assets	-	15,732,302,823	-
Deferred Tax Assets	40,764,514,720	38,421,655,680	41,407,873,779
Other Investment Assets	1,298,649,901,851	1,626,791,063,141	1,785,846,776,491
Other Non-current Assets	138,472,238,696	139,218,962,054	118,715,081,461
Total Assets	16,225,303,457,752	14,900,311,234,207	15,751,476,329,733
Liabilities			
Current Liabilities	3,201,335,106,805	2,212,795,893,287	2,670,359,532,470
Account Payables and Other Payables	2,068,729,998,495	1,658,167,209,814	1,485,918,600,167
Income Tax Payable	17,250,350,548	43,097,065,919	20,807,947,629
Advance Payment	48,343,481,753	77,372,218,374	50,470,586,582
Unearned Revenue	19,820,912,000	50,198,579,787	33,857,200,178
Short-term Loan	1,047,190,364,009	383,960,819,393	1,079,305,197,914
Non-Current Liabilities	1,770,775,498,102	1,723,405,113,962	1,629,117,299,821
Account Payables and Other Payables	125,909,534,438	218,037,566,906	181,119,003,713
Long-term unearned revenue	60,737,684,095	69,135,389,783	47,612,643,092
Long-term Loan	702,450,008,323	566,585,621,889	345,303,351,571
Salary Payables	79,274,231,719	-	25,621,629,290
Derivative Liabilities	-	19,211,000,000	20,220,577,592
Deferred Tax Liabilities	802,404,039,527	850,435,535,384	1,009,240,094,563
Total Liabilities	4,972,110,604,907	3,936,201,007,249	4,299,476,832,291
Stockholder's Equity			
Controlling Interest	11,011,996,227,176	10,722,130,891,929	11,257,301,680,704
Paid-in-Capital	356,712,130,000	356,712,130,000	356,712,130,000
Capital Stock	356,712,130,000	356,712,130,000	356,712,130,000
Other Capital	5,802,144,525,108	5,370,701,484,132	5,300,002,330,347
Other Capital Surplus	5,031,244,206,194	5,031,244,206,194	5,042,698,139,239
Other Capital	-10,848,672,785	-251,530,117,715	-345,131,583,767
Other Comprehensive Income	781,748,991,699	590,987,395,653	602,435,774,875
Retained Earnings (Deficit)	4,853,139,572,068	4,994,717,277,797	5,600,587,220,357
Non-Controlling Interests	241,196,625,669	241,979,335,029	194,697,816,738
Total Stockholder's Equity	11,253,192,852,845	10,964,110,226,958	11,451,999,497,442
Total Liabilities and Equity	16,225,303,457,752	14,900,311,234,207	15,751,476,329,733

[48th: 2017.01.01 - 2017.12.31 / 47th: 2016.01.01 - 2016.12.31 / 46th: 2015.01.01 - 2015.12.31]

Consolidated Statement of Comprehensive Income

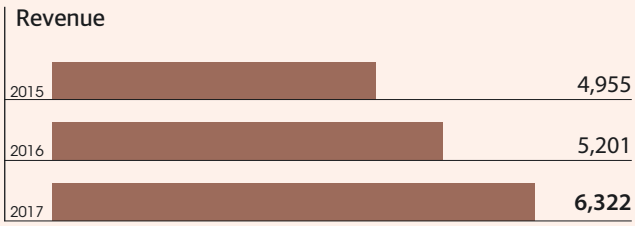
(Unit: KRW)

	End of 46th	End of 47th	End of 48th
Revenue	4,954,861,345,574	5,200,822,510,213	6,321,560,921,969
Cost of Goods Sold	4,114,742,488,185	4,450,250,017,519	5,152,472,076,172
Gross Profit	840,118,857,389	750,572,492,694	1,169,088,845,797
Selling and Administrative Expenses	1,107,612,751,925	1,676,905,126,686	1,052,194,059,279
Operating Income (Loss)	-267,493,894,536	-926,332,633,992	116,894,786,518
Other Income	839,362,791,868	522,463,321,541	196,226,647,012
Other Expenses	1,000,732,520,120	649,922,869,981	183,023,147,146
Financial Income	170,296,343,485	285,569,134,952	250,012,082,221
Financial Expenses	191,449,335,919	297,649,578,505	251,450,264,219
Gains and Losses from Equity Method	279,900,381,630	245,178,733,518	695,404,774,170
Earnings (Loss) Before Taxes	-170,116,233,592	-820,693,892,467	824,064,878,556
Income Tax Expense (Income)	-39,218,616,879	57,809,852,547	180,871,015,592
Income (Loss) from Continuing Operations	-130,897,616,713	-878,503,745,014	643,193,862,964
Income (Loss) from Discontinued Operations	156,583,382,456	1,089,614,935,226	-
Net Income (Loss)	25,685,765,743	211,111,190,212	643,193,862,964
Other Comprehensive Income	-555,798,152,226	-222,175,443,064	-6,154,449,821
Items that will not be reclassified to profit or loss	7,285,128,783	-7,514,539,894	16,421,113,526
Re-measurement of Net Defined Benefit Liabilities	9,591,501,399	-9,891,811,881	21,529,601,753
Tax effects	-2,306,372,616	2,377,271,987	-5,108,488,227
Items that may be reclassified to profit or loss	-563,083,281,009	-214,660,903,170	-22,575,563,347
Revaluation of derivatives	279,629,986	-	-
Revaluation of financial assets available for sale	-732,330,579,246	-319,318,208,339	171,461,576,116
Changes in the capital under Equity Method	-35,382,509,548	107,468,284,369	-1,625,771,441
Foreign currency translation	21,165,811,745	-54,772,638,958	-156,923,295,181
Tax effects	183,184,366,054	51,961,659,758	-35,488,072,841
Total Comprehensive Income	-530,112,386,483	-11,064,252,852	637,039,413,143
Net Income (Loss) Attributable to			
Controlling Interest	53,846,137,611	219,405,853,323	657,236,340,934
Non-Controlling Interest	-28,160,371,868	-8,294,663,111	-14,042,477,970
Comprehensive Income (Loss) Attributable to:			
Controlling Interest	-502,765,900,272	21,129,717,383	685,105,833,682
Non-Controlling Interest	-27,346,486,211	-32,193,970,235	-48,066,420,539
Earnings Per Share (EPS)			
Basic earnings per ordinary share	766	3,133	9,824
Basic earnings (loss) per share from continuing operations	-1,458	-12,434	9,824
Basic earnings (loss) per share from discontinued operations	2,224	15,567	-
Basic earnings per preference share	816	3,183	9,874
Basic earnings (loss) per share from continuing operations	-1,408	-12,384	9,874
Basic earnings (loss) per share from discontinued operations	2,224	15,567	-

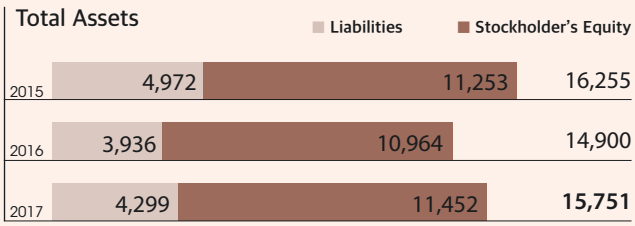
[48th: 2017.01.01 - 2017.12.31 / 47th: 2016.01.01 - 2016.12.31 / 46th: 2015.01.01 - 2015.12.31]

SUSTAINABILITY DATA

Economic performance



(Unit: KRW billion)



(Unit: KRW billion)

Financial performance

		Unit	2015	2016	2017
Revenue	Energy Solution	KRW 100 Million	33,127	34,302	43,042
	Electronic Materials		16,421	17,706	20,174
Operating Income			-2,675	-9,263	1,169
Net Income			257	2,111	6,432

Output

		Unit	2015	2016	2017
Energy Solution	Small-sized Li-ion batteries, etc.	Million	1,079	1,053	1,158
Electronic Materials	EMC	Ton	6,469	6,218	6,236
	Polarizing film	1,000㎡	34,217	45,023	66,046

Market share

		Unit	2015	2016	2017
Energy Solution (Source: Report published by B3, a market researching firm)	Small-sized Li-ion battery	%	25	24	21
	- Cylindrical		29	26	24
	- Prismatic		27	25	25
	- Polymer		18	14	14
	Automotive Battery		6	7	7
	ESS		16	21	30.5
Electronic Materials (Source: Samsung SDI Electronic Material Man- agement Support Team)	EMC		7	7	7
	Polarizing film		6	7	8
	PV Paste		29	32	22

Enhancement of R&D capability

R&D Investment	Unit	2015	2016	2017
Investment	KRW 100 million	5,389	5,525	5,259
Investment / Revenue	%	10.9	10.6	8.3

Training R&D Resources	Unit	2017
R&D staff	Persons	2,215
R&D staff / Total employee	%	24.2

Patent Registration	Unit	2015	2016	2017
Korea	Case	4,770	4,273	4,314
U.S.		2,044	2,702	2,869
China		1,380	1,392	1,437
Japan		1,307	1,127	1,084
Europe		735	1,812	2,981
Other		498	580	619
Total		10,734	11,886	13,304

Tax risk management

(2017 Tax Payment by Country)

Korea	-8,824,497,593	South East Asia	1,289,524,434
Japan	290,658,958	China	6,439,093,400
America	249,024,441	Latin America	73,937,862
Europe	12,645,272,394	Hong Kong	1,306,399,754

(Unit: KRW)

Environmental performance

Pollutant emissions management & Waste management & Water use management

Water Resources	Unit	2015	2016	2017
Company-wide Consumption	1,000 ton	5,246	5,646	6,408
Domestic Consumption	1,000 ton	3,456	3,399	3,484
Oversea Consumption	1,000 ton	1,790	2,247	2,924
Intensity	1,000 ton/KRW 100 million	0.11	0.11	0.10

Waste Water	Unit	2015	2016	2017
Domestic Treatment Amount	1,000 ton	3,771	2,535	1,960
Overseas Treatment Amount	1,000 ton	425	373	1,060
Intensity	1,000 ton/KRW 100 million	0.08	0.06	0.05

Hazardous Chemical Substance	Unit	2015	2016	2017
Company-wide Consumption	ton	21,429	20,694	26,097
Domestic Consumption	ton	20,984	20,274	24,228
Oversea Consumption	ton	445	420	1,869
Intensity	ton/KRW 100 million	0.43	0.38	0.41

Waste	Unit	2015	2016	2017
Domestic Emissions	ton	35,705	40,346	46,705
Oversea Emissions	ton	12,433	12,957	26,025
Intensity	ton/KRW 100 million	0.97	0.98	1.15
Designated Waste Generation	ton	23,540	21,922	25,225
Recycle/ Landfill Rate in Domestic	%	98.9 /0.8	97.7 /1.9	99.0 /1.0
Recycle/ Landfill Rate in Overseas	%	87.1 /12.6	84.8 /15.2	92.0 /8.0

Waste	Unit	Total
Incineration	ton	7,258
Landfill	ton	2,587
Recycling	ton	60,571
Total	ton	70,416

Pollutant Emissions	Unit	2015	2016	2017
Water quality (Domestic)				
BOD Intensity	kg/KRW 100 million	0.09	0.13	0.12
COD Intensity	kg/KRW 100 million	0.44	0.57	0.42
SS Intensity	kg/KRW 100 million	0.27	0.70	0.36
Air (Domestic)				
No_x	kg/KRW 100 million	0.05	0.05	0.14
So_x	kg/KRW 100 million	0.02	0.02	0.02
Dust	kg/KRW 100 million	0.25	0.20	0.09
Substances that destroy the Ozone Layer				
Emissions in Domestic	kCFC11eq	26	52	52
Emissions in Overseas	kCFC11eq	15	92	0.3
Intensity	kCFC11eq/KRW 100 million	0.001	0.003	0.001

GHG Emissions

GHG Emissions		Unit	2015	2016	2017
Direct/indirect emissions	Total	tCO_2e	646,292	747,926	**919,382**
	Direct emissions	tCO_2e	92,964	99,847	**143,581**
	Indirect emissions	tCO_2e	553,328	648,080	**775,801**
	Direct emissions Intensity	tCO_2e /KRW 100 million	13.04	13.74	**16.90**
Other emissions	Business trip	tCO_2e	2,155	2,184	**4,331**
	Product transportation	tCO_2e	1,395	768	**516**
Per product	Small-sized Li-ion battery	tCO_2e	383,760	427,735	**467,140**
	Automotive & ESS battery	tCO_2e	143,618	178,479	**221,133**
	Electronic materials	tCO_2e	88,630	110,924	**197,008**
	R&D and others	tCO_2e	28,284	30,788	**34,101**

Energy use and Energy saving

Energy use	Unit	2015	2016	2017
Total	TJ	11,609	12,876	**14,988**
Domestic	TJ	7,612	8,033	**8,609**
Overseas	TJ	3,997	4,843	**6,379**
Intensity	TJ/KRW 100 million	0.23	0.24	**0.28**

Energy saving investment and activity/ Saving effect		Unit	2015	2016	2017
Total investment		KRW million	12,360	2,312	**3,522**
Fuel saving		Case	167	129	**71**
Power saving		Case	869	513	**390**
Saving effect	Total	KRW 100 million	148	137	**102**
	Fuel	KRW 100 million	17	28	**11**
	Power	KRW 100 million	131	109	**91**

- The scope of data collection includes all domestic and foreign production corporations, HQ and research centers, except for sales corporations and offices. (As for production corporations, it includes only those with production performances in 2017)
- Sales used in calculating the amount in KRW are based on consolidated financial statements.
- Hazardous chemicals are indicated based on hazardous chemicals under the Chemicals Control Act in Korea.
- Report on the discharge quantity of air and water pollutants is confined to Korea due to difficulties in calculation on an annual basis as items of pollution levels in some overseas corporations differ from legal measurement cycles.

Social performance

Reinforcing product safety evaluation and management

Quality Management Training	Unit	2017
Quality experts	Persons	74
Quality Management Training Hour	Hour	1,346

Quality Management Training	Unit	2015	2016	2017
Ratio of ISO 9001 auditor qualification	%	15	18	15
Ratio of quality management qualification (except for ISO 9001)	%	11	29	26

Customer Satisfaction		Unit	2017
Small-sized Li-ion Battery	Score	Score	81.9
	No. of Company	EA	21
	No. of Customer	Persons	24
Automotive Battery & ESS	Score	Score	85.9
	No. of Company	EA	4
	No. of Customer	Persons	4
Electronic Materials*	No. of Company	EA	33
	No. of Customer	Persons	190

*In the case of the electronic materials business, we do not present the total number of customer satisfaction scores because of the variety of products.

Building up workplace safety

Safety Environment Investment	Unit	2015	2016	2017
Safety Environment Investment Cost	KRW 100 million	56	231	28

Safety Environment Inspection	Unit	2017
CEO Inspection	Case	12
CEO Meeting	Case	4

Safety Environment Audit	Unit	2017
Korea	Case	188
Overseas	Case	168

Accidents		2017	Note
Employee	No. of accidents(case)	7	Jamming, burn accident, etc.
	Accident injury rate	0.0334	Domestic : 0.0327 Overseas : 0.0339
	Disease injury rate	0	
	No.of deaths	0	
In-house partner company	Score	0	
	No. of Customer	0	

Rate of ownership of national qualification certification	Unit	2015	2016	2017
Industrial engineer or higher	%	65	73	83
Master craftsman or higher	%	11	17	37

Employee accident rate (Based on 300 days)	Employee			In-house partner company			Total		
	Korea	Overseas	Total	Korea	Overseas	Total	Korea	Overseas	Total
Employee's rate of injury	0.136	0.141	0.14	0	0	0	0.12	0.13	0.13
Employee's rate of loss	2.09	12.01	7.67	0	0	0	1.83	11.11	6.93
Accident rate	0.0327	0.0339	0.0334	0	0	0	0.02872	0.03136	0.03017

Sustainable supply chain support and management

Purchase cost	Unit	2015	2016	2017
Total purchase cost	KRW 100 million	29,294	34,369	44,302
Raw material purchase	KRW 100 million	24,990	28,590	37,512
Facility purchase	KRW 100 million	2,852	4,402	5,191
MRO purchase (incl. packaging material)	KRW 100 million	775	1,091	1,384
Subcontract cost	KRW 100 million	677	286	215
Local purchase of supplier	%	38.2	40.0	40.6

Sustainable supply chain support and management

Shared growth agreement	Unit	2015	2016	2017
Primary partner company	EA	140	112	110
Secondary partner company	EA	174	140	120

Shared growth support activity	Unit	2015	2016	2017
Financial support				
- Direct support (Mold cost credit support)	KRW 100 million	126	156	97.1
- Hybrid support (co-prosperity fund amount)	KRW 100 million	270	270	270
- Special support (training etc)	KRW 100 million	15	12	11.8
Direct/indirect management support				
- Group training (partner company)	Persons (Company)	320(102)	727(86)	759(75)
- Online training (partner company)	Persons (Company)	162(18)	138(9)	146(14)
- Recruiting support	Persons	60	53	65
- Recruiting support	Company	13	6	7
- Innovation guidance	Company	13	10	12

Shared growth support achievement	Unit	2015	2016	2017
Technical support and protection achievement				
- Private-public joint investment development project	Case	3	1	2
- Conditional purchase (Localization task)	Case	1	1	5
- Original trade secret certificate system	Case	-	5	19
- Technical escrow system	Case	15	15	8
New market penetration support achievement				
- Purchase conference	Case	6	7	6
- Product exhibition for partner companies	Case	1	1	1
- Overseas benchmarking support	Case	2	2	2
- Overseas corporation investment authority info session	Case	1	1	-
- Support to participate in foreign technology exhibition	Case	1	2	1

S-partner certification achievement	Unit	2015	2016	2017
Korea	Case	66	62	70
Overseas	Case	24	29	20
Total	Case	90	91	90
Unqualified partner company	EA	4	-	-

Major violations by S-Partner	Unit	2017
Violations of child labor/forced labor	Case	0
Non-compliance of requirements under labor contract	Case	18
Inadequate contamination prevention and waste management	Case	62
Unsatisfactory equipment for workplace safety & health	Case	74

Compliance with laws and global anti-corruption principles

Compliance, Ethics Training		Unit	2015	2016	2017
Samsung SDI	Corruption Prevention*	Persons	18,028	17,438	9,377
	Ethics*	Persons	6,971	3,645	4,097
Supply Chain	Ethics	Company	72	57	80

* Accumulated person-years

Penalty	Unit	2015	2016	2017
Punishment from anti-corruption audit	Persons	43	42	20
Partners terminated the contract for corruption involvement	Company	3	-	-

Compliance Inspection	Unit	2015	2016	2017
Theme inspection	Case	2	5	5
Self-inspection on system	Case	1	1	1
On-site inspection	Case	13	4	4
Subcontract inspection	Case	6	2	3
Internal transaction inspection	Case	-	1	3
Overseas corporation inspection	Case	-	2	1
Legal review on major meetings	Case	97	31	112
Total	Case	119	46	129

Business site corruption risk evaluation	Unit	2015	2016	2017
Total business site No.	EA	30	30	30
No. of business sites with corruption risk	EA	19	4	2
Percentage of business site with corruption risk	%	63	13	7

Employment

Employment		Unit	2015	2016	2017
Total		Persons	20,938	19,353	22,142
By Gender	Male	Persons	15,770	14,489	16,211
	Female	Persons	5,168	4,864	5,931
By Region	Korea	Persons	11,123	9,200	9,258
	Asia	Persons	8,887	9,378	11,858
	Europe	Persons	735	694	895
	America	Persons	193	81	131
By Type	Full-Time	Persons	19,621	17,631	20,078
	Contract	Persons	946	1,326	1,364
	Dispatched*	Persons	371	396	700

* The main positions of dispatched in Korea are executive secretaries, administrative support, interpreters, and car drivers, while dispatched in overseas corporations are engaged in manufacturing and packaging inspection tasks.

New Recruitment			Unit	2015	2016	2017
By Gender	No. of new recruitment	Male	Persons	2,518	3,201	4,999
		Female	Persons	1,095	1,496	3,007
By Region	No. of new recruitment	Korea	Persons	236	755	684
		Overseas	Persons	3,377	3,942	7,322
Total			**Persons**	**3,613**	**4,697**	8,006

Turnover Rate		Unit	2015	2016	2017
Turnover Rate	Total	%	15.7	22.3	27.4
	Korea	%	3.1	13.6	2.4
	Overseas	%	29.9	30.2	45.6
By Region	Asia	%	31.1	31.5	48.1
	Europe	%	9.4	10	13.9
	America	%	50.3	24.1	11.5
By Gender	Male	%	12.7	19.3	23.9
	Female	%	24.9	30.8	36.6
By Age	Below 30	%	30.4	31	45.2
	30 ~ 50	%	5.2	10.5	12
	50 and above	%	9	67.7	5.4

Employee competency development and communication

Training	Unit	2015	2016	2017
Training hours per employee - Korea	Hour	91	100	103
Training cost per employee - Korea	KRW	1,172,181	1,097,022	990,632
Training hours per employee - Overseas corporations *	Hour	66	90	86.1

* Excluding newly incorporated corporations and newly acquired corporations in 2015

Training		Unit	2015	2016	2017
Training cost	Total cost	KRW 100 million	118	82	83
	In-house training cost	KRW 100 million	81	53	55
	Oursourced training cost	KRW 100 million	37	29	28
Participants	Task (by function)	Persons	26,684	21,030	21,097
	Global (language)	Persons	4,405	5,206	6,369
	Leadership	Persons	12,932	17,809	16,294

Sales/Marketing Manpower Training		Unit	2017
Sales Training	Sales/Marketing staff	Persons	316
	Company-wide percentage of sales/marketing staff	%	4
	Sales/Marketing Training Cost	KRW Million	12

Employee competency development and communication

Diversity and Social Equality		Unit	2015	2016	2017
Disabled		Persons	181	137	133
Locally Recruited	Locals in managerial positions*	Persons	117	111	105
	Managerial positions in foreign operation sites	Persons	222	195	180
	Percentage of locals in managerial positions	%	52.7	56.9	58.3
Female Employees	Female managers (manager or higher)*	Persons	316	274	303
	Managers in total (manager or higher)*	Persons	4,641	3,570	3,715
	Percentage of females in managerial positions	%	6.8	7.7	8.2

* Managerial positions: Leader-level staff in charge of official positions such as group leader / team leader

Welfare and benefits		Unit	2015	2016	2017
Welfare and benefits expenditure		KRW million	248,641	282,779	255,013
Parental Leave	Return to work rate* (Ratio of employees who returned after parental leave the previous year)	%	74.4	81.9	82.1
	Retention rate* (Ratio of employees retained 12 months or longer after returning to work from parental leave the previous year)	%	71.9	70.9	80.7
Employee Grievance Mechanism	Percentage of grievances resolved *	%	97	100	95.2
	Number of grievances filed *	Case	451	414	441
SCI evaluation score*		Score	60.8	70.1	70.3

Renumeration and Others	Unit	2015	2016	2017
Remuneration	KRW million	843,905	970,241	759,356
Severance pay	KRW million	71,467	428,381	65,489
Gender-based base remuneration ratio		1 : 1	1 : 1	1 : 1
Representatives of Labor-Management Council*	Persons	55	55	52
Culture Leader*	Persons	295	257	252

* Based on Korean

Community engagement and development

Social Contribution Investment	Unit	2015	2016	2017
Social contribution expenditure	KRW 10,000	675,268	491,547	401,719
Social welfare	%	47.5	37.0	40.4
Academic education	%	40.9	54.9	45.6
Medical health	%	9.5	1.0	3.1
Sports promotion	%	1.2	1.9	2.1
Environmental conservation	%	0.5	2.8	6.7
Culture & Art	%	0.4	2.3	2.2
Matching grant	KRW 100 million	24.8	19.8	18.5

Employee Participation Performance	Unit	2015	2016	2017
Social Contribution Participation Rate	%	97.1	98.6	97.0
Domestic Volunteering Activity Hours Per Person	Hour	7.4	11.7	13.7

Major Social contribution	Unit	2015	2016	2017
Donated Eyesight Recovery Project (Accumulated)	Persons	212,412	218,728	224,399
Donated Eyesight Recovery Project (Treatment)	Persons	6,223	6,243	5,615
Donated Eyesight Recovery Project (Operation)	Persons	65	73	56
Green Planet Environment School (Accumulated)	Persons	3,228	8,618	17,095
Green Planet Environment School Beneficiary	Persons	1,918	5,390	8,477
Green Planet Environment School Satisfaction	Score	-	87	91.9
Talent Nurturing Company Scholarship Recipient (Accumulated)	Persons	-	94	104

- As for all other indices except for some indicators, the scope of data collection contains performances attained by all domestic and foreign corporations and research centers including HQ.
- Sales used in calculating the amount in KRW are based on consolidated financial statements.
- Report on investments in social contribution activities and performances is confined to Korea due to difficulties in calculation on an annual basis as investments in social contribution activities by overseas corporations are differently defined and measured.

GRI CONTENT INDEX

Topic	GRI Standard	Disclosure		Pages/References
		No.	Title	
General disclosures	GRI 102 : General disclosures 2016	102-1	Name of the organization	10
		102-2	Activities, brands, products, and services	14~17
		102-3	Location of headquarters	11
		102-4	Location of operations	10
		102-5	Ownership and legal form	11, 18~19
		102-6	Markets served	10
		102-7	Scale of the organization	10~11, 79~81, 86
		102-8	Information on employees and other workers	86
		102-9	Supply chain	12~13, 60~67, 84~85
		102-10	Significant changes to the organization and its supply chain	N/A
		102-11	Precautionary Principle or approach	21
		102-12	External initiatives	28~29, 65~67
		101-13	Membership of associations	24
Strategy		102-14	Statement from senior decision-maker	6~7
		102-15	Key impacts, risks, and opportunities	21
Ethics and integrity		102-16	Values, principles, standards, and norms of behavior	22, 46
		102-17	Mechanisms for advice and concerns about ethics	22
Governance		102-18	Governance structure	18~19
Stakeholder Engagement		102-40	List of stakeholder groups	24
		102-41	Collective bargaining agreements	73, 87
		102-42	Identifying and selecting stakeholders	24
		102-43	Approach to stakeholder engagement	24
		102-44	Key topics and concerns raised	24
Reporting practice		102-45	Entities included in the consolidated financial statements	Annual Report 3~4p
		102-46	Defining report content and topic Boundaries	24~25
		102-47	List of material topics	25
		102-48	Restatements of information	82, 84
		102-49	Changes in reporting	82, 84
		102-50	Reporting period	4
		102-51	Date of most recent report	4
		102-52	Reporting cycle	4
		102-53	Contact point for questions regarding the report	4
		102-54	Claims of reporting in accordance with the GRI Standards	4
		102-55	GRI content index	88~89
		102-56	External assurance	90~92
Management Approach	GRI 103 : Management Approach 2016	103-1, 2, 3	Management Approach	24~25
Economic Performance	GRI 103 : Management Approach 2016	103-1, 2, 3	Management Approach	32~33
	GRI 201 : Economic Performance 2016	201-1	Direct economic value generated and distributed	26~27
Market Presence	GRI 103 : Management Approach 2016	103-1, 2, 3	Management Approach	52~53
	GRI 202 : Market Presence 2016	202-2	Proportion of senior management hired from the local community	87
Indirect Economic Impacts	GRI 203 : Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	74~77
		203-2	Significant indirect economic impacts	74~77
Procurement Practices	GRI 103 : Management Approach 2016	103-1, 2, 3	Management Approach	60~61
	GRI 204 : Procurement Practices 2016	204-1	Proportion of spending on local suppliers	84

Topic	GRI Standard	Disclosure		Pages/References
		No.	Title	
Anti-corruption	GRI 205 : Anti-corruption 2016	205-1	Operations assessed for risks related to corruption	85
		205-3	Confirmed incidents of corruption and actions taken	85
Anti-competitive Behavior	GRI 103 : Management Approach 2016	103-1, 2, 3	Management Approach	22
	GRI 206 : Anti-competitive Behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	22~23
Energy	GRI 302 : Energy 2016	302-1	Energy consumption within the organization	83, 90
		302-3	Energy intensity	83
		302-4	Reduction of energy consumption	83
Emissions	GRI 103 : Management Approach 2016	103-1, 2, 3	Management Approach	70~71
	GRI 305 : Emissions 2016	305-1	Direct (Scope 1) GHG emissions	83, 90
		305-2	Energy indirect (Scope 2) GHG emissions	83, 90
		305-3	Other indirect (Scope 3) GHG emissions	83, 90
		305-4	GHG emissions intensity	83
		305-6	Emissions of ozone-depleting substances (ODS)	82
		305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	82
Effluents and Waste	GRI 103 : Management Approach 2016	103-1, 2, 3	Management Approach	70~71
	GRI 306 : Effluents and Waste 2016	306-2	Waste by type and disposal method	82
		306-3	Significant spills	N/A
Supplier Environmental assessment	GRI 103 : Management Approach 2016	103-1, 2, 3	Management Approach	60~61
	GRI 308 : Supplier Environmental assessment 2016	308-1	New suppliers that were screened using environmental criteria	62, 85
		308-2	Negative environmental impacts in the supply chain and actions taken	62~67, 85
Employment	GRI 103 : Management Approach 2016	103-1, 2, 3	Management Approach	52~53
	GRI 401 : Employment 2016	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	55
Occupational Health and Safety	GRI 103 : Management Approach 2016	103-1, 2, 3	Management Approach	48~49
	GRI 403 : Occupational Health and Safety 2016	403-1	Workers representation in formal joint management-worker health and safety committees	50, 84
		403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	84
Training and Education	GRI 103 : Management Approach 2016	103-1, 2, 3	Management Approach	52~53
	GRI 404 : Training and Education 2016	404-1	Average hours of training per year per employee	86
		404-2	Programs for upgrading employee skills and transition assistance programs	55, 86
Diversity and Equal Opportunity	GRI 103 : Management Approach 2016	103-1, 2, 3	Management Approach	72~73
	GRI 405 : Diversity and Equal Opportunity 2016	405-2	Ratio of basic salary and remuneration of women to men	87
Non-Discrimination	GRI 103 : Management Approach 2016	103-1, 2, 3	Management Approach	72~73
	GRI 406 : Non-Discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	72~73
Human Rights Assessment	GRI 412 : Human Rights Assessment 2016	412-1	Operations that have been subject to human rights reviews or impact assessments	72~73
Supplier Social Assessment	GRI 103 : Management Approach 2016	103-1, 2, 3	Management Approach	60~61
	GRI 414 : Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	62, 85
		414-2	Negative social impacts in the supply chain and actions taken	62~67, 85
Customer Health and Safety	GRI 103 : Management Approach 2016	103-1, 2, 3	Management Approach	44~45
	GRI 416 : Customer Health and Safety 2016	416-1	Assessment of the health and safety impacts of product and service categories	46~47
		416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	46~47

GHG VERIFICATION STATEMENT

kfq Korean Foundation for Quality

IQNet

Third Party's Verification Statement

■ Introduction

Korean Foundation for Quality (hereinafter 'KFQ') has been engaged by Samsung SDI Co., Ltd.(hereinafter the 'Company') to independently verify its 2017 Greenhouse Gas Emission Report of domestic corporations and 8 overseas subsidiaries.
It is the responsibility of the Company to compile the Greenhouse Gas Emission Report according to the 'Greenhouse Gas and Energy Target Management Scheme (Notification No. 2016-255 of Ministry of Environment)','Guidelines for GHG emission reporting and certification of GHG emission trading scheme (Notification No. 2017-12 of Ministry of Strategy and Finance) ', and 'ISO 14064-1:2006', and KFQ has responsibility to conduct verification based on the ISO 14064-3 to provide verification opinion on compliance of the Report against verification criteria.

■ Verification Scope

In this verification, domestic corporations and 8 overseas subsidiaries under operational control of Samsung SDI Co., Ltd., and reported emission in including Scope 1(Direct) and Scope 2(Indirect) emission. Scope 3(Indirect-business trip and logistics) is also considered in total Greenhouse Gas Emission.

■ Verification Opinion

Through the verification process according to the ISO 14064-3, KFQ could obtain reasonable basis to express following conclusion on the Greenhouse Gas Emission Report.

1) 2017 Samsung SDI Co., Ltd., Greenhouse Gas Emission Report was prepared against "Greenhouse gas and energy target management scheme', 'Guidelines for emission reporting and certification of greenhouse gas emission trading scheme', and 'ISO 14064-1:2006':
2) As a result of materiality assessment on 2017 domestic Greenhouse Gas Emission(Scope 1 and Scope 2), material discrepancy is less than the criteria of 5.0% for the organization who emits less than 500,000 tCO_{2eq}/yr in accordance with the requirements of the 'Guidelines for GHG emission reporting and certification of GHG emission trading scheme' :
3) For the 8 overseas subsidiaries, material assessment was conducted according to the document review result and it shows that material discrepancy is less than 5.0%.
4) Among reported Greenhouse Gas Emission purchased electricity and LNG consumption take most of total emission. Activity data of these emission sources were checked through the objective evidence provided by supplier therefore KFQ could confirm that these activity data is valid itself.
   For the overseas subsidiaries, national net caloric value and electricity emission factor were preferentially used but net caloric value in 'Greenhouse Gas and Energy Target Management Scheme' was used in case of nonexistence of it.
   For the Scope 3 of the domestic corporation, its emission was calculated according to the Company methodology considering travel distance for business trip only by objective evidence. And for the factors considered in emission calculation, the latest factor was used thus consistency and correctiveness is substained in 2017 Greenhouse Gas Emission Report against Samsung SDI Co., Ltd., internal guideline.
5) Except unconsidered emission source in the 'Samsung SDI Co., Ltd., Greenhouse Gas Inventory Guideline', material error, omission or insignificant issues was not founded in 2017 Samsung SDI Co., Ltd., Greenhouse Gas Emission Report.

(Unit: ton CO_2 eq)

Report year		2017.1.1~2017.12.31	
Verification Scope		Domestic	Overseas
GHG Emission	Scope 1, 2	438,399	480,983
	Scope 3: Business trip and logistics for the domestic corporation	4,847	-

[2017 Samsung SDI Co., Ltd., Greenhouse Gas Emission]

April 18th 2018

Daehyun Nam

Daehyun Nam
President & CEO Korean Foundation for Quality

THIRD-PARTY VERIFICATION STATEMENT

LRQA Independent Assurance Statement

Lloyd's Register

Relating to Samsung SDI Co., Ltd.'s Sustainability Report for the 2017 calendar year

This Assurance Statement has been prepared for Samsung SDI Co., Ltd. in accordance with our contract but is intended for the readers of this Report.

Terms of engagement

Lloyd's Register Quality Assurance (LRQA) was commissioned by Samsung SDI Co., Ltd. (Samsung SDI) to provide independent assurance on its 'Samsung SDI Sustainability Report 2017' ("the report") against the assurance criteria below to a moderate level of assurance using AA1000AS (2008), where the scope was a Type 2 engagement.

Our assurance engagement covered Samsung SDI's operations and activities in Korea and overseas specifically the following requirements:

- Evaluating adherence to AA1000 AccountAbility Principles of Inclusivity, Materiality and Responsiveness
- Confirming that the report is in accordance with:
  - GRI Standards: Core option
- Evaluating the accuracy and reliability of data and information for only the selected indicators listed below:
  - GRI 200 (Economic): 201-1, 202-2, 203-1, 203-2, 204-1, 205-1, 205-3, 206-1
  - GRI 300 (Environmental): 302-1,302-3, 302-4, 305-1, 305-2, 305-3, 305-4, 305-6, 305-7, 306-2, 306-3, 308-1, 308-2,
  - GRI 400 (Social): 401-2, 403-1, 403-2, 404-1, 404-2, 405-2, 406-1, 412-1, 414-1, 414-2, 416-1, 416-2

Our assurance engagement excluded the data and information of Samsung SDI's suppliers, contractors and any third-parties mentioned in the report.

LRQA's responsibility is only to Samsung SDI. LRQA disclaims any liability or responsibility to others as explained in the end footnote. Samsung SDI's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the report and for maintaining effective internal controls over the systems from which the report is derived. Ultimately, the report has been approved by, and remains the responsibility of Samsung SDI.

LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that Samsung SDI has not, in all material respects:

- Met the requirements above
- Disclosed accurate and reliable performance data and information as all errors or omissions identified during the assurance engagement were corrected
- Covered all the issues that are important to the stakeholders and readers of this report.

The opinion expressed is formed on the basis of a moderate level of assurance and at the materiality of the professional judgement of the verifier.

Note: The extent of evidence-gathering for a moderate assurance engagement is less than for a high assurance engagement. Moderate assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a moderate assurance engagem

LRQA's approach

LRQA's assurance engagements are carried out in accordance with our verification procedure. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Assessing Samsung SDI's approach to stakeholder engagement to confirm that issues raised by stakeholders were captured correctly. We did this through reviewing documents and associated records.
- Reviewing Samsung SDI's process for identifying and determining material issues to confirm that the right issues were included in their Report. We did this by benchmarking reports written by Samsung SDI and its peers to ensure that sector specific issues were included for comparability. We also tested the filters used in determining material issues to evaluate whether Samsung SDI makes informed business decisions that may create opportunities that contribute towards sustainable development.
- Auditing Samsung SDI's data management systems to confirm that there were no significant errors, omissions or mis-statements in the report. We did this by reviewing the effectiveness of data handling procedures, instructions and systems, including those for internal verification. We also spoke with those key people responsible for compiling the data and drafting the report.

- Reviewing supporting evidence made available by Samsung SDI at their head office in Gyeonggi-do and Cheonan production site in Chungcheongnam-do, Korea.
- Checking the report boundary covers all sites in Korea and overseas presented in the overview of the report.
- Checking that the GRI Content Index allows stakeholders to access sustainability indicators.

Observations

Further observations and findings, made during the assurance engagement, are:

- Stakeholder inclusivity:
  We are not aware of any key stakeholder groups that have been excluded from Samsung SDI's stakeholder engagement process.
- Materiality:
  We are not aware of any material issues concerning Samsung SDI's sustainability performance that have been excluded from the report. It should be noted that Samsung SDI has established extensive criteria for determining which issue/aspect is material and that these criteria are not biased to the company's management. However, Samsung SDI should improve the materiality process by evaluating which indicators for the material topics are appropriate for articulating its impacts on sustainability.
- Responsiveness:
  Samsung SDI has reported its sustainability performance in Korea and overseas in the report. Some data sets and information do not include some or all of the overseas operations. As a global company, Samsung SDI should take more active measures to ensure that its sustainability management approach and performance (e.g. environmental pollutants, hazardous chemicals management, etc.) at its overseas sites meet its own sustainability management policies and objectives, and social expectations. In the future report, Samsung SDI should enhance the reporting principle of completeness in relation to overseas operations by reporting data and information that were not reported in the report for the 2017 calendar year.
- Reliability:
  Samsung SDI has reliable data management systems for the indicators in the report.

LRQA's standards, competence and independence

LRQA implements and maintains a comprehensive management system that meets accreditation requirements for ISO/IEC 17021 Conformity assessment - Requirements for bodies providing audit and certification of management systems that are at least as demanding as the requirements of the International Standard on Quality Control 1 and comply with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants.

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

LRQA is Samsung SDI's certification body for ISO 9001 and ISO/TS 16949. We also provide Samsung SDI with a range of training services related to management systems. The verification and certification assessments, together with the training, are the only work undertaken by LRQA for Samsung SDI and as such does not compromise our independence or impartiality.

Tae-Kyoung Kim
LRQA Lead Verifier
On behalf of Lloyd's Register Quality Assurance Limited
17th Floor, Sinsong Building, 67 Yeouinaru-ro, Yeongdeungpo-gu, Seoul, Korea

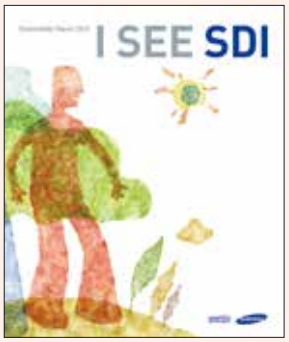
Dated: 5th June 2018

LRQA reference: SEO6051368

AA1000
Licensed Assurance Provider
000-11

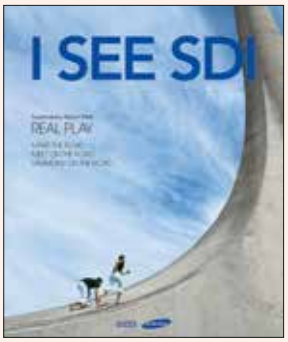
SUSTAINABILITY REPORT IN PREVIOUS YEARS

2003



2004

2005



2006

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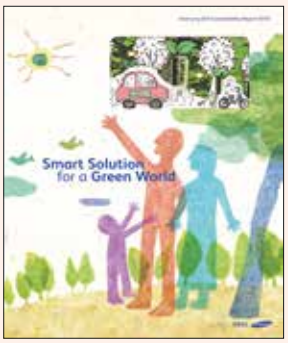
2009



2010

2011

2012


2013

2014

2015

2016

SAMSUNG SDI