



SUSTAINABILITY MAIN THEMES

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Batteries inherently repeat the cycle of charge and discharge to produce electricity energy, and this makes product safety the paramount factor for sustainability at Samsung SDI. We set our own safety standards that are even more stringent than international safety standards, and continue to develop novel solutions to improve the safety of our products, including fire extinguishing agent spray technology.

As the Serious Accidents Punishment Act took effect in January 2022, this further highlights the importance of workplace safety. In response, we are bolstering our safety-related organizations, systems, and institutions and are fully committed to putting safety above all else across our entire value chain including partners as well as among our own employees.

KPI

Area		Indicator	Unit	2019	2020	2021
Product Safety	Customer satisfaction	Small-sized Li-ion battery	Point	85.7	85.1	91.9
		Automotive and ESS battery	Point	82.8	81.2	81.0
People Safety	Employee injuries (accident) (No. of employees injured/ No. of employees X 100)		%	0.038	0.014	0.021
	In-house partner injuries (accident) (No. of employees injured/ No. of employees X 100)		%	0.051	0.019	0.035
	Improvement tasks identified through workplace safety audits ¹⁾		No. of cases	919	635	314

1) Reviews scaled down amid COVID-19
※ Scope of the Index: Domestic and overseas production facilities

Product Safety

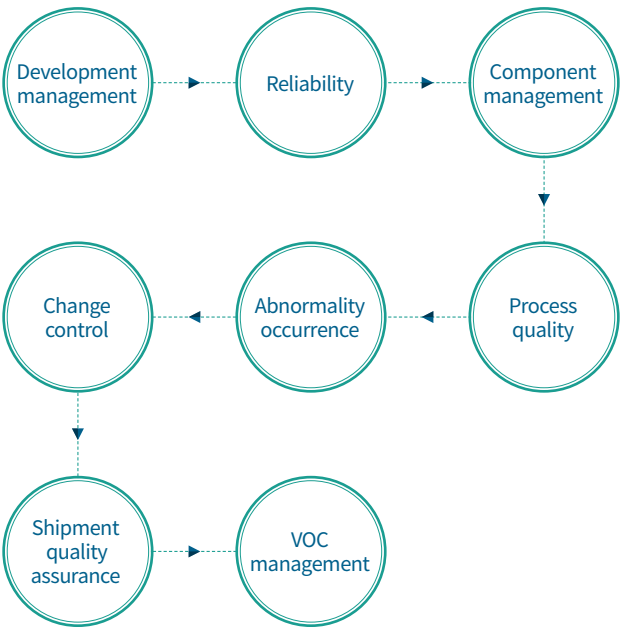
Our Approach and Management Plan

Samsung SDI puts product safety and quality before all else. Under the motto of ‘All for nothing without quality’, we continue to bolster our quality management system along the entire product lifecycle. As the quality of our partners directly translates into the quality of our products, we send our Quality Team staff to partners to support their quality improvement and enable immediate response to issues that occur. From development to mass-production, we analyze and monitor data by leveraging our quality assurance methodology designed for risk verification. Our Hungary corporation is managed under the direct leadership of our Quality Assurance Office operating at the Headquarters to stabilize its product launches. We also collect Voice of Customers (VOC) to improve customer satisfaction and expedite our efforts to make necessary improvements. In 2021, our Electronic Materials Business improved its product return ratio, one of the key customer quality indicators, through its sustained commitment to quality enhancement and assurance. In particular, tailor-made management of the polarizing film process and reinforced defect inspection allowed us to post an over 50% improvement in Q-VOC (quality-related VOC) against 2020.

Quality Management System

Our quality management system complies with global standards such as ISO 9001 and IATF 16949 throughout the entire process from product design, manufacturing, shipment to customer satisfaction. We introduce a range of IT systems and data analytics techniques to this end, and receive regular IATF 16949 surveillance audits performed by third-party organizations while conducting internal audits in preparation for external certification audits.

8-Step Quality Process



Quality Management 10 Commandments

All for nothing without quality.

Safety	Safety always comes first.
Customer Satisfaction	Best quality moves the hearts of customers.
Rule Compliance	Respect the rules and principles.
Product	Neither make nor deliver a defect.
Communication	Communication builds on process and data.
Supplier	Our journey toward quality begins at suppliers.
Transparency	Report the problem once it occurs and ask for cooperation.
VOC	Be responsive to VOCs and make sure of improvement afterwards.
Problem Solving	Refuse to compromise on quality.
Radical Cure	For chronic issues, treat the root cause first.

SAMSUNG SDI

Quality Management 10 Commandments

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Product Safety

Improving Product Safety

Putting safety first to preemptively ensure quality

Samsung SDI’s effort to verify safety factors starts from the raw material selection phase. Specifically, we perform FMEA (Failure Mode and Effect Analysis) in the development phase to identify and improve potential safety and quality issues to ensure quality while putting safety first. Safety verifications are conducted prior to product shipment to test products under severe and/or extended use conditions to reduce their safety risks to zero in consideration of varying product use conditions and diversifying applications. To preemptively detect potential issues that may occur from the development phase to the mass production phase, we employ the accelerated testing methodology¹⁾ to conduct more robust verifications and establish quality in the process.

1) Set above-the-average conditions on time-consuming test items to identify product characteristics in a shorter period of time

Advancing the statistics-based process management system

We leverage statistical data to operate a statistics-based process management system to respond to potential quality risks in our processes and products before their occurrence. Anomaly signs on key management factors are monitored and controlled in real time, and data trends are automatically analyzed throughout the entire process from component receipt to product shipment.

This allows us to fundamentally prevent defective products from being delivered and establish an advanced quality assurance system as a result. In 2021, an electrode quality monitoring and control system was operated to ensure the uniform quality of our electrodes across all our manufacturing locations. Our 2022 plan is to apply deep learning, AI and other machine learning technologies to our process analysis, monitoring and control to upgrade our statistics-based process management system.

Establishing uniform mass production quality across global operations

Key quality management items are chosen to perform quality performance assessments on the Headquarters and all overseas corporations, and their monthly assessment scores are compared to identify and implement improvement tasks to ensure all production facilities enhance their quality performance.

To prevent identical quality incidents from reoccurring at other processes or corporations, relevant measures are shared to stabilize quality across our global operations. We perform daily quality monitoring on electrodes to prevent defective products from escaping into the back-end process while establishing a more rational and specialized quality assurance process in time with the expansion of new lines to enable timely mass production.

Responding to hazardous substances contained in products

The products delivered by our Electronic Materials Business for semiconductors, displays, and batteries are strictly managed in accordance with our internal standards that are aligned with such global environmental regulations as the EU Restriction of Hazardous Substances Directive (EU RoHS) for electric and electronic devices. We also respond to the Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) regulations of respective countries while managing the containment of hazardous substances and their content in accordance with the product environmental performance requirements of our customers.

In line with the rising demands for product environmental performance, we also apply more rigorous hazardous substance content standards than domestic/overseas environmental standards. When harmful substances are contained in the raw materials that go into our new products, we ensure that such substances are reduced or eliminated from the development phase to assist our customers in ensuring the safety of their workers and the environmental friendliness of their products.

Bolstering quality assurance capabilities

The pursuit of ever-finer line widths becomes the norm in the application sector while quality standards are tightening for semiconductor materials. In response, we will bolster our capabilities to evaluate and differentiate semiconductor materials while enhancing the detection capabilities of our automated detectors for polarizing films to cater to ultra-large-sized, ultra-high-resolution products in 2022.

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Product Safety

Promoting Customer-centric Product Safety and Quality Management

Proactively addressing VOC

We manage customer-related metrics, including customer defect rates and VOCs, as KPIs to establish our competitive edge in product quality. In 2021, phase-specific goals were set to respond to VOC, and our small-sized Li-ion battery and ESS battery business divisions each defined their goal of ‘immediately responding to VOC within 24 hours’ and ‘setting 30-day goals for improvement measures’.

To facilitate VOC registration for EV battery operations, our corporations conducted training on VOC registration management. This resulted in a 329% increase in registered VOCs against 2020, and the improvement activities undertaken for respective issues helped us bolster our EV battery quality response process.

Our Escalation Cycle has been up and running since 2022 as a process to notify relevant departments of specific VOCs that occur repeatedly and report such VOCs to senior management. For causes of defects identified through the Escalation Cycle, we perform rapid analyses and make it a rule to complete necessary improvements on such causes.

Furthermore, we established the Resident Engineer system for each of our major customers (4 locations in 2020, 12 locations in 2021) and reinforced our global network to minimize any delay in customer response that may arise in the initial phase of issue occurrence and bolstered our immediate response capabilities.

In battery business, we deploy the RMA (Returned Materials Authorization)-based customer response process to define product defect rates as an effective customer indicator experienced by our customers and end users and establish a regular quality risk verification system in so doing. For the initial quality of innovative products, we plan to set the first three to six months as the intensive monitoring period to detect and improve quality issues. In case there are defect items that are not addressed completely, we make sure that their improvement measures are verified for effectiveness in order to elevate product quality.

Our Electronic Materials Business sends quality experts from the Headquarters to help local staff better respond to quality issues that affect our overseas customers. The Focus 119 quality issue management system allows for real-time identification of quality-related issues, and work is underway to create a database out of such activities.

2021 Customer Satisfaction Scores by Business Division



Managing and improving customer satisfaction

In addition to improving on the customer VOCs collected, we also conduct customer satisfaction surveys by business division. In so doing, we lend an ear to complaints raised by customers across wide-ranging categories, including R&D capabilities, service, and delivery as well as quality. The VOCs gathered during the survey period are communicated to relevant departments through meetings and are reflected in identifying their level of quality and service and setting the course of future improvements.

Our small-sized Li-ion Battery Business conducted the CSI (Customer Satisfaction Index) survey on 22 major customers in 2021 to analyze their complaints on quality characteristics, quality performance and other categories and made improvements accordingly.

In 2022, we will include customer satisfaction improvement as one of the strategic pillars of quality management and optimize our CSI survey in terms of its timing and questionnaire.

Our Electronic Materials Business could not conduct its customer satisfaction survey in 2021 amid COVID-19. The division will resume the survey in the five categories of quality and technical support, development capability, supply, and sales to identify issues and make necessary improvements.

Product Safety

CET(Customer Environment Test)

Our CET (Customer Environment Test) aims to minimize risks that may occur when customers use our battery while ensuring the performance stability of our products in line with the increasing penetration of batteries across diverse product categories. Unlike the widely-adopted practice of applying manufactures’ own quality standards, the CET enables us to study the actual application conditions of users to improve safety risks and reviews the appropriateness of battery cell use under the conditions set by customers themselves. This ensures that Samsung SDI’s battery cell products are delivered to meet the optimal conditions required by customers and helps prevent fires caused by improper product use or large-scale quality incidents attributable to mis-design or miss-matching on the part of customers.

In 2021, we reinforced our CET response management regulations and standardized our customer review documents to respond to the increasing demand for sharing small-sized mobility devices (e-bikes, kick boards, and e-scooters). Our priority for 2022 is to reach 100% in CET implementation so that end users do not experience any safety incidents due to products delivered without safety verifications.

Our automotive and ESS battery business also introduced the CET process to address the increasingly severe application use conditions and cater to new battery-powered applications such as vessels. Specifically, work is underway to identify safety risks in advance that may occur when our products are used by customers or EPC¹⁾ companies who lack sufficient understanding of our battery products.

Our customers benefit from the CET process by eliminating safety risks, which also sets favorable conditions for the quality of our battery products.

The CET is expected to play a positive role as Samsung SDI taps into new battery application markets including ships.

1) Engineering Procurement Construction



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Product Safety

Extending the Scope of Quality Improvement Management

Supporting overseas corporations with quality improvement

Samsung SDI pursues uniform, exceptional quality across all its domestic and overseas production facilities to build unsurpassed global competitiveness. To strengthen the assurance of mass-production quality, quality gate improvement activities were implemented to supplement the advance warning system based on process-specific measurement data, raise the bar on quality anomaly management, and share improvement cases with overseas corporations, elevating our quality management performance across the board.

To stabilize the outgoing quality of overseas corporations, we send quality experts from the Headquarters to provide training to local staff in the areas of mass-production, development, and customer satisfaction as part of our continuous efforts to enhance their technical performance. We also realign the organizational system of overseas corporations and engage in year-round communication with expatriates to support overseas corporations with stable quality management and operation.

Our Electronic Materials Business assists its overseas workforce in improving their quality capabilities to increase satisfaction with our quality on the part of overseas customers. The business division operates meetings attended by manufacturing, technology and quality personnel at our Cheongju worksite to transfer know-how in polarizing film manufacturing to local staff and expatriates, and engage in discussions to solve problems and bolster the work skills of employees at overseas corporations.

In 2021, audit and quality training (problem solving, FMEA, etc.) was conducted for local employees to implement more than 100 improvement activities at our Chinese location performing back-end process cutting, which allowed us to earn approval from the audits conducted by customers. In 2022, our engineers at the Cheongju worksite will be sent to provide consulting for back-end cutting process operations in China, and to conduct comparative analyses on the strengths and weaknesses of each cutting companies to make necessary improvements across the board.

Supporting partners with quality improvement

In 2021, we initiated preliminary component inspections to assist partner companies in fully assuring the quality of the components they deliver to Samsung SDI prior to their shipment. Our quality team members were permanently assigned to partners to perform inspections and improve issues with outgoing quality to prevent defective products from being shipped to support their quality management.

Furthermore, we increased the number of samples that receive quality inspections performed as part of the component shipment process to make sure that defective components do not enter our process in the first place. To reduce defect escape rates to zero, we also apply total inspections and automated inspections to the process of partner companies to help them establish their quality competitiveness.

As managing the quality of raw materials is the key to electronic materials business, our Electronic Materials Business will send dedicated staff to partner companies in 2022 to preemptively secure the quality of products delivered by partners. Our staff responsible for raw material quality will closely engage in regular meetings with partners to address customer and internal issues and advance quality management in so doing.

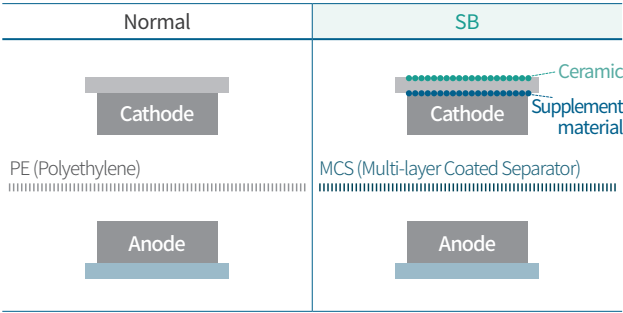
Product Safety

Bolstering Battery Safety

Developing SB (Safety Battery) products

Samsung SDI is developing SB (Safety Battery) products which deliver improved safety features in the event of folding, unfolding, and critical falls to enhance the safety and reliability of products. These new battery products are enabled by technology to control the crack-induced separator breaks caused by the folding of batteries as well as short circuits that occur in cathode devices and anode materials. They employ slip separators and highly flexible electrodes to keep cracks under control as well as safety-enhancing additives to control the growth of Li dendrites (micro short circuit control). As shown in the picture on the right, they also leverage ceramic insulation layers and other supplements to prevent short circuits and bolster the safety of battery in the process.

Overview of Safety Battery

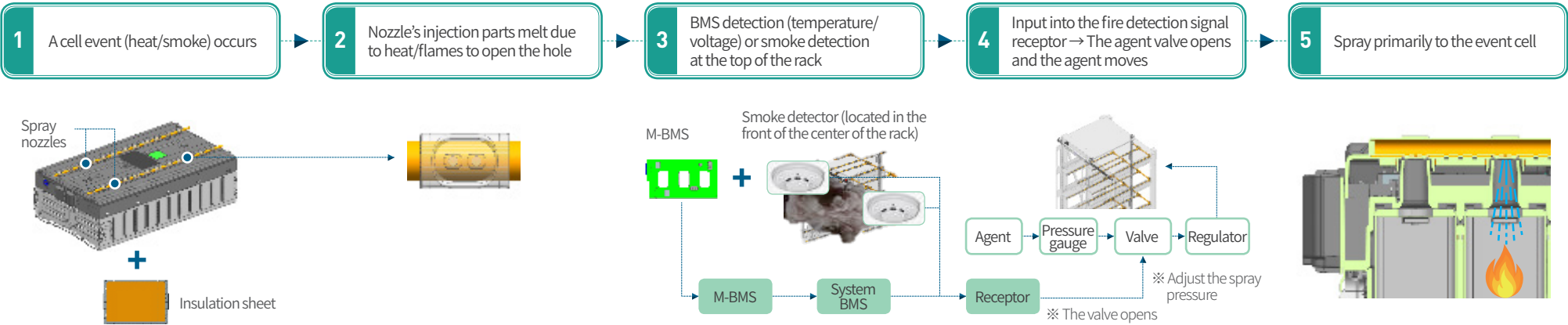


Introducing a fire extinguishing agent direct spray system for ESS applications

The continued rise in ESS cell capacity alerted us to the need to establish the safety of our products and respond to UL certification audits, and we introduced a fire extinguishing agent direct spray system for our newly-launched battery cells.

This system aims to achieve early fire suppression (maximize the cooling extinguishment effect) by intensively spraying the cell interior/exterior areas that were detected to catch fire. When a specific cell generates heat or flames, this triggers the agent container to open its valve and spray the extinguishing agent primarily to the cells where heat/fires occurred.

Operational Mechanism of Samsung SDI's Direct Spray System



People Safety

Our Approach and Management Plan

Occupational accidents that occur in industrial settings at increasingly larger scales not only bring economic losses but also undermine employees’ health and safety, tarnish the reputation of the company involved, and even impact the survival of the company. Notably, the Serious Accidents Punishment Act which took effect on January 27, 2022, further raised the bar on the criminal and financial sanctions and penalties imposed on occupational injuries.

In response, Samsung SDI has operated a company-wide ‘Eradicating Serious Accidents Task Force’ since May 2021 to remain free of any fatal occupational injuries. Guided by the principle that safety is the core value that all Samsung SDI employees live by, we remain further committed to bolstering our health and safety management system.

Appointing a C-level Executive for Safety Operations

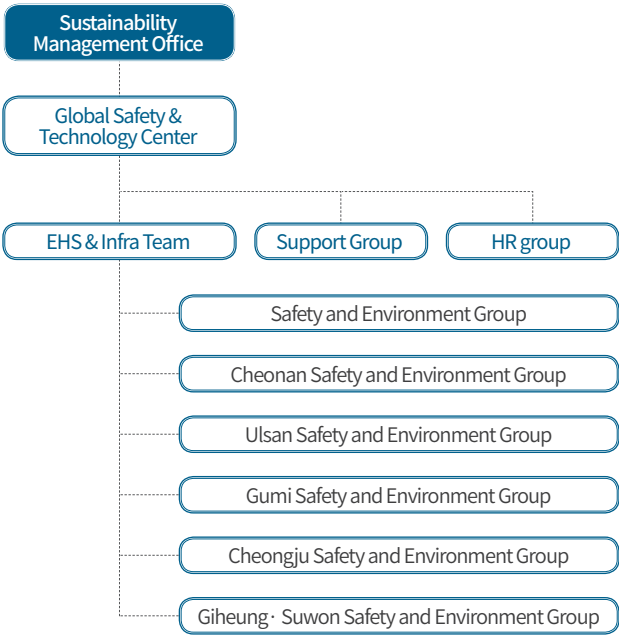
Samsung SDI appointed a Chief Safety Officer (CSO) in February 2022. The CSO is mandated to manage our health and safety budget, personnel and relevant legal response, and head the development and implementation of measures to prevent the reoccurrence of injuries that do occur. To this end, an organization dedicated to safety operations was created to oversee and support all business departments.

Dedicated EHS Organization

To properly respond to the Serious Accidents Punishment Act enacted on January 27, 2022, we created a dedicated EHS organization while realigning our existing organization by adding personnel and support functions. The EHS & Infra Team, which was previously under the Technology Innovation Center, was promoted to be operated under the

Global Safety & Technology Center, and the Safety and Environment Group, which was run under respective business divisions, was incorporated into the Global Safety & Technology Center to reinforce its function as a dedicated organization. With these organizations playing a central role, we are facilitating activities to prevent accidents and communications to raise safety awareness among employees and partners.

Safety Management Organizational Chart



Executive Vice President
and Head of Global
Safety & Technology
Center

Heon Seo



Employee health and safety forms one of the key criteria used to evaluate corporate value in ESG management, along with employees’ human rights and diversity. This also constitutes the most essential activity in ensuring the contentment of individuals and families as well as corporate growth.

Samsung SDI vows to create a safety-first culture and operate a risk management system to recognize and prevent risk factors before they occur while maintaining a 24/7 prompt response system to keep its employees out of harm's way and advance ESG management in a healthy, safe and pleasant work environment. We will also share our ESG management philosophy with partners and fulfill our social responsibility as a member of community.

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People Safety

Building an Advanced Safety Culture

Providing occupational health and safety training

We provide health & safety training to all our employees to elevate their occupational health and safety awareness. Our diverse training curriculum consists of more than 240 courses for employees to choose from. Managers, new hires, employees handling hazardous substances, and those assigned to specific or new tasks are supported in receiving tailor-made training on a quarterly basis depending on their job category or level and work processes.

In 2021, special training was conducted on the Serious Accidents Punishment Act for CEOs and managers of our partners as well as all our employees including the CEO in preparation for the enactment of this Act. This training touched upon the topics of the purpose and provisions of this Act which took effect on January 27, 2022.

Disseminating a safety culture

We regularly assess the level of our safety culture across eight areas including top management commitment, R&R, communication and engagement, competency, compliance, cause analysis and corrective action, and monitoring. Assessment outcomes are analyzed to identify causes for vulnerabilities and develop relevant measures to make necessary improvements.

Besides, safety culture themes are selected each month and a range of publicity activities are implemented to widely engage employees in establishing a safety-first culture.

Workplace Safety Management

Establishing and amending the EHS procedures

We have overhauled our workplace safety procedures to elevate employees' safety awareness and executive capabilities and ensure compliance with safety regulations and prevent accidents in the process. In reflection of ISO standards, we reclassified our workplace safety procedures into regulations, standards and Standard Operating Procedures (SOP), and amended our risk management regulations that apply to the Headquarters and worksites.

Verifications were made by the Legal & IP Team to make doubly sure that our workplace safety procedures duly reflect legal provisions and detailed procedures attributable to regulatory amendments, and the revised procedures were publicly registered on our internal standard regulation management system (PMM) for all employees to refer to.

As to the SOPs that are implemented on the shop floor, 10 essential workplace safety items were defined to further segment work procedures and elaborate on safety measures. The SOP system was reorganized to make it mandatory to consult workplace safety departments in registering SOPs in our document system. The workplace safety procedures established and amended as such are communicated to our employees through training supervised by managers.

Operating the integrated EHS system

Samsung SDI operates an integrated company-wide EHS system to identify risks and manage employee health, chemical consumption and KPIs in addition to ensuring regulatory compliance.

This system consists of 47 modules across the eight categories of safety and environment, health, chemicals, disease prevention, partner companies, audit and common areas. Our EHS system is operated in accordance with such international standards as ISO 14001 and ISO 45001. To ensure the normal operation of our company-wide EHS management system, we received surveillance audits across all domestic and overseas worksites in October 2021, and were certified to be 'valid' by the certification body.

Reinforcing our shop floor safety certification

Since 2020, we have operated the manufacturing work certification program to ensure that in performing work that involves the direct operation of facilities, error correction measures can be taken only by those workers who completed relevant job training. This program is classified into the four grades of A, B, C, and D, and upgrading from grade D (entry) to grade A (professional) is possible only when the concerned worker has worked for the set period of time and cleared the certification test.

People Safety

Expanding the performance appraisal for manufacturing management supervisors

While EHS management performance appraisals were made on part organizations at our Gumi worksite only, this was extended to all our worksites in Korea (Cheonan, Ulsan, and Cheongju). Appraisal methods that differed across respective worksites were unified into 35 evaluation items in four areas, and appraisals have been made twice a year (first and second half) since 2021. In so doing, we will regularly review the EHS performance of management supervisors who are responsible for the shop floor safety of our employees, and achieve zero injuries and accidents and provide a safe work environment.

4 Evaluation Areas of EHS Management



Building an emergency response system

We are establishing an emergency response system to prepare for all possible incidents and accidents while regularly conducting trainings and exercises to take swift emergency response measures at all levels, from senior management to working-level employees, in the event of an emergency. Each month, processes and facilities with high risk of fires are reviewed to prevent such incidents from occurring, and emergency firefighting units are under operation 24/7 in case of emergency.

Improving on potential process-related risks

We consistently identify and improve potential process-related risks at domestic and overseas worksites. Potential process-related risks identified as such are uploaded on our computer system to be shared across the board, and the risk data has been managed twice a month since June 2021. In 2021, a total of 234,072 potential process-related risks were identified by our manufacturing workforce at all levels, and this translates into 37.4 risks per employee, which exceeded the set target (12 risks per employees) by 312%. Out of these risks identified, those associated with the detection of potential falls and fires were chosen as best practices.

Best Practices for Identifying and Improving on Potential Process-related Risks

잠재위험발굴 개선 우수사례		우수
문제점	M2동 후공정 입고대 설비 기재 낙하사고 발생 우려	
S 등급	부서명	실시일
	실시자(대표)	2021. 12. 19
위험구분	위치	M2 동 7기 프레스 입고대
	동일유형(개소)	M2 동 프레스,슬리딩 입고대 (14개소)
구분	개선 전 (As is)	개선 후 (To be)
개 선 사 진		
내 용	<ul style="list-style-type: none">이재기 동작중 안전원 기재 낙하 발생으로 안전사고 발생 위험 (안전원 정상시 작업 중에도 중물물 낙하함)1번 기재 입고대 입고후 터전 정착안정됨2번 기재 입고대 발생후 근무자 인종으로 인위적 제동 자동 입고 시점1번 (상착한) 기재와 2번(중착한) 기재 중물물 2번 기재 이대기에서 낙하 발생 (제동 입고시 완료S/W 정렬로 근무자 안전(입고)S/W 조작)· 입고대 → U/W 터전 간 인위적 작동하여 기존 제동 장치시· 추가 입고 중착되지 않도록 인터록 프로그램함 추가· 중물물 낙하 발생 예방	
잠 재 원 분 석	직접원인	이재기 상부 안착된 정보를 이중 입고시 구조적 간섭 가능한 위치로 이동하여 롤 낙하 발생
	근본원인	기구적 간섭 가능한 구조에 이중 입고 투입 불가 인터록 프로그램 적용 누락됨
개 선 조 과	관리부처	LGV이중 입고 이후 이재기 투입 완료S/W 조작한 이력이 없음으로 위의 같은 현상 사전에 인지 안됨
	이재기 안착된 중량물 기재 이동중 중물 및 낙하 사고 예방	
수 평 기	M2동 양/음극 프레스/슬리딩 전호기(14개소) 수평전개 완료	동일개소 개선 유무 (Y/N/해당없음)
		개선 소요 금액(원)

Facilitating hand-written DRIs (Double-check Risk Inspection)

In line with increases in the construction and manufacturing work performed within our worksites, it becomes difficult to identify causes of risks in advance and make shop-floor verifications. To prevent such occurrences, we introduced hand-written DRIs (Double-check Risk Inspection): hand-written DRIs help identify and mark risks and enable workers and managers to directly map out work methods and safety measures so that they better recognize risks in advance and adapt to field work accordingly, mitigating risks of accidents as a result. In 2021, hand-written DRIs were performed on production facilities and manufacturing work (error action, loading/unloading, cleaning, etc.) by Samsung SDI employees as well as partner employees. This allowed us to preemptively verify safety measures on construction and manufacturing work and check shopfloor safety measures, and the number of injuries has continued to decline since 2019, from four in 2019 to two in 2020 and two in 2021¹⁾. To follow up on the two cases of falls²⁾ that occurred in 2021, we supplemented our DRI preparation methods by marking passages for workers and by placing floor plans and marking openings for sections where ceiling work is performed. Furthermore, hand-written DRIs were introduced for sub-subcontractors which had remained largely overlooked.

1) Based on the Headquarters and partner companies combined
2) Accidents which occurred at partners in 2021: A fall that occurred at a partner company operating in the construction site of our Hungary corporation, and a fall which occurred at a partner company operating at the Samsung Future Technology Campus

People Safety

Advancing battery safety management

We are advancing our management process to check battery safety even from the product development phase. To prevent fire accidents, we are also raising the bar on production and storage management in line with handling and storage standards set according to battery risk levels. Notably, we have installed in-house firefighting equipment specialized for battery fires for the formation process which poses the risk of fires during manufacturing to bolster its early-phase response capabilities.

Our prevention center and our control center simultaneously engage in 24/7 monitoring to bolster battery production and storage management, and our firefighting crew and process-specific workers participate in scenario-based drills to take swift emergency action in the event of fires and build year-round emergency preparedness in so doing.

Assessing partner companies for safety performance

Samsung SDI complies with its obligation to select qualified suppliers pursuant to Article 61 of the Occupational Safety and Health Act. For any work performed in locations controlled and managed by Samsung SDI, such work is contracted to businesses who are capable of taking actions to prevent occupational injuries and accidents, and these sub-contractors (partners) are subject to safety performance assessments.

As to issues associated with assessing partners' safety performance, collaboration is underway among Equipment Purchasing Group, Safety and Environment Group and Infra Operation Group at respective worksites.

In 2021, such assessments were made on 334 partner companies. Those who score below 70 points should receive re-assessments within three months according to relevant regulations, and those who fail to score 70 points or above in re-assessments are prohibited from participating in any bid through the alignment made between safety performance assessment items within the partner module of our EHS system (G-EHS) and our partner management system (G-SRM). In 2021, 29 partner companies were below 70 points, and we provided them with improvement guidance in written format in place of physical visits amid COVID-19.

Partner Safety Performance Assessment Results

□ 안전수준평가(적격 수급인)

사업장 : '21년 중입 현황 완

구분	사업장	대상사 (인프라/상주 협력사)	평가 결과			
			S등급	A등급	B등급	C등급
공사	전 안	46	6	24	14	2
	울 산	62	8	24	26	-
	구 미	62	5	19	27	8
	청 주	36	2	7	24	3
	기 흥	56	11	15	23	5
	수 원	19	2	5	10	1
	합	281	34	94	124	19
상주	전 안	13	7	6	-	-
	울 산	10	5	5	-	-
	구 미	9	5	3	1	-
	청 주	5	4	1	-	-
	기 흥	10	5	4	1	-
	수 원	6	1	4	1	-
	합	53	27	23	3	0

※ CU, 파워에너저, 올 가전사업자 및 사업장별 통계 제외
1/777

Partner companies that received safety assessments

334companies

Honored at the 20th Korea Safety Awards

Our Cheongju worksite has been operating a 24/7 prevention center led by professionals to systematically respond to fires, safety accidents and other potential emergencies and has teamed up with the local fire station to prevent fires in communities.

The worksite has also installed leak sensors and gas detectors for all processes that handle hazardous chemicals to maintain a 24/7 real-time monitoring system. Such efforts were recognized when the worksite was named an excellent safety management company and honored with the Presidential Award at the 20th Korea Safety Awards in November 2021.



Honored at the 20th Korea Safety Awards

People Safety

Bolstering Chemical Substances Management

Operating a chemical substances management system

Our Global Environment, Health & Safety (G-EHS) system, developed to respond to domestic and international regulations related to chemical substances, ensures that chemicals are inspected for possible conflict with applicable laws and regulations and are managed for their use at our worksites.

Any and all chemical substances that enter our worksites in Korea and abroad should receive EHS impact assessments, and should be verified for legal measures required following their entry into our worksites before purchases are made.



Total Inspections Performed on the Use of Chemical Substances

Operating an internally regulated substances grading and approval system

The scope of internally regulated substances includes carcinogens and other substances harmful to the human body as well as legally regulated substances to protect the health of our employees and prevent work-related illnesses. Substances, selected under our internally regulated substances grading and approval system, are graded into A, B, and C, and chemicals are verified for their inclusion in the prohibited substances list, applicable substitution and mitigation plans, and protective measures prior to their entry and consumption at our worksites. To protect our employees from work-related illnesses and keep them healthy, we have prioritized and categorized highly toxic substances (SVHCs/CMR/PAHs) based on their hazards and managed them accordingly since 2022. Furthermore, risk assessments are conducted on chemicals that are put into the process in consideration of their hazards, exposure levels, and work characteristics, and assessment results are used to check the work environment including sealing conditions. Total inspections are also performed on chemical substances every quarter to identify the overall status of chemical handling and regulatory compliance concerning the Material Safety Data Sheet (MSDS) and the installation of warning signs.

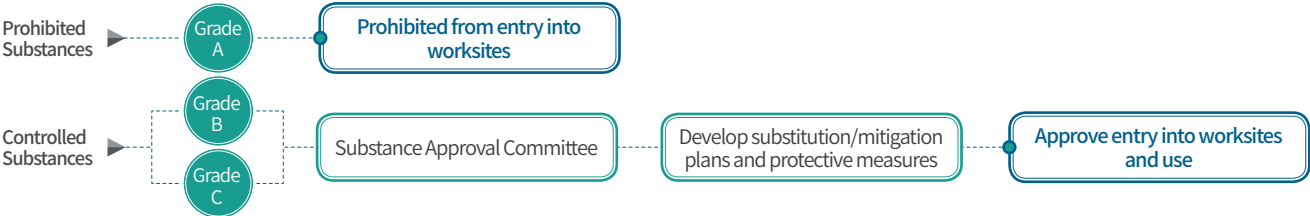
Managing process hazards

In the event of change in work that handles chemicals in the manufacturing process or the addition of new materials in the R&D process, ad-hoc measurements are made on hazards to abide by legal standards. We commission third-party professional organizations to perform semiannual work environment measurements on processes that handle hazards. Furthermore, we apply internal standards that are more stringent than legal standards to hazards, exposure to substances requiring special management, and ventilation facilities. For hazards that are handled throughout the entire process, we set our internal exposure limit at less than 30% of the legal threshold, and this is even further tightened to less than 10% of the legal threshold for carcinogenic, reprotoxic or mutagenic substances that require special management. In case there are processes that exceed our internally-set exposure limits, improvement measures are developed to replace or mitigate hazards and seal affected equipment.

In addition, local exhaust ventilation devices installed for processes that handle chemicals receive inspections and assessments at least once a year. Specifically, our domestic worksites are subject to regular deep-dive assessments made by third-party professional organizations. In 2021, we invested nearly KRW 8.5 billion in increasing the exhaust air flow, containing equipment within booths, and installing mobile local exhaust ventilators to improve the work environment.

Grading and Approval of Internally Regulated Substances ¹⁾

1) Classified into Grade A, B, and C according to their level of hazards



Healthcare

Employee Healthcare

Health promotion activities

Samsung SDI supports health promotion activities for employees including regular check-ups, work environment inspections, health training and disease prevention. We provide regular health check-ups for the early diagnosis and prevention of diseases, and our employees are supported in receiving health counseling at the Samsung SDI medical clinic when deemed necessary as a result of comprehensive life-cycle health check-ups. Furthermore, health promotion activities are implemented by inviting key opinion leaders in the healthcare sector and partnering with local health centers to help employees take better care of themselves.

Preventing work-related illnesses

To prevent work-related illnesses caused by repetitive work that generates musculoskeletal burden, we perform regular shopfloor inspections and change work methods to improve our work environment. Our Cheonan and Gumi worksites operate their own musculoskeletal center, and offer one-on-one musculoskeletal disease prevention programs to help employees ease their musculoskeletal pain that stems from their daily habits as well as work-related ones.

COVID-19 Response

Maintaining the operation of the COVID-19 Task Force

We continue to operate the company-wide COVID-19 Task Force that was launched in January 2020. The TF consists of the Corporate HR Team, the Financial Management Team, the Communication Team, and ESH departments at the Headquarters. The TF is primarily responsible for managing domestic/overseas business travels, worksite access controls, and access to crowd facilities, conducting training and group activities, operating disease control activities and establishing relevant standards, and posting and sharing disease control standards in line with national COVID-19 guidelines on the corporate bulletin board.

Preventing infections and the spread of COVID-19

To protect employees from COVID-19 infections and prevent their spread, we ensure that elevators, handrails and other areas exposed to frequent physical contacts are disinfected more than once every day, and stronger controls are placed on worksites, dormitories, commuter buses and other facilities used by our employees. In addition, in-house cafeterias extended their business hours, adopted zig zag seating arrangements, and placed plastic barriers on the table to minimize physical contacts among employees. We also broadcast our corporate disease prevention guidelines and distancing rules on an on-going basis to raise employees' safety awareness.

Managing partners' compliance with COVID-19 guidelines

In 2021, we reviewed 33 partner companies to help prevent COVID-19 among domestic partners. The checklist used included 14 items concerning collective and individual disease prevention activities and workers' code of conduct. Such reviews were made as part of the S-Partner certification process to provide training and encourage partner companies to abide by disease prevention guidelines.





As the US and Europe consider carbon border taxes and other policy options to respond to climate change, a number of companies are voluntarily joining global initiatives such as the RE100 and the SBTi to reduce their carbon emissions.

While the growing demand for personal mobility, EVs and ESS boosts the demand for batteries and presents opportunity for Samsung SDI, this also comes in tandem with the stronger voice raised by stakeholders to manage adverse environmental impact generated along the battery value-chain.

Samsung SDI has developed specific implementation strategies to reach its goal of fully transitioning to renewable energy in meeting its power needs at domestic and overseas worksites by 2050. We will also measure the carbon footprint that stem from batteries and expand our resource recovery system to minimize any negative environmental impact generated along our value chain.

KPI

Area	Indicator	Unit	2019	2020	2021
Action for Climate Crisis	Direct·indirect GHG emissions intensity	tCO ₂ e/KRW 100 million (sales)	12.6	12.4	11.6
	Domestic waste recycled	%	93.9	96.1	96.0
	Overseas waste recycled	%	89.4	77.3	89.7
Circular Economy and Environmental Impact Management	Water withdrawal intensity	1,000 tons/KRW 100 million (sales)	0.08	0.07	0.06

※ Scope of the Index: Production facilities in Korea and overseas

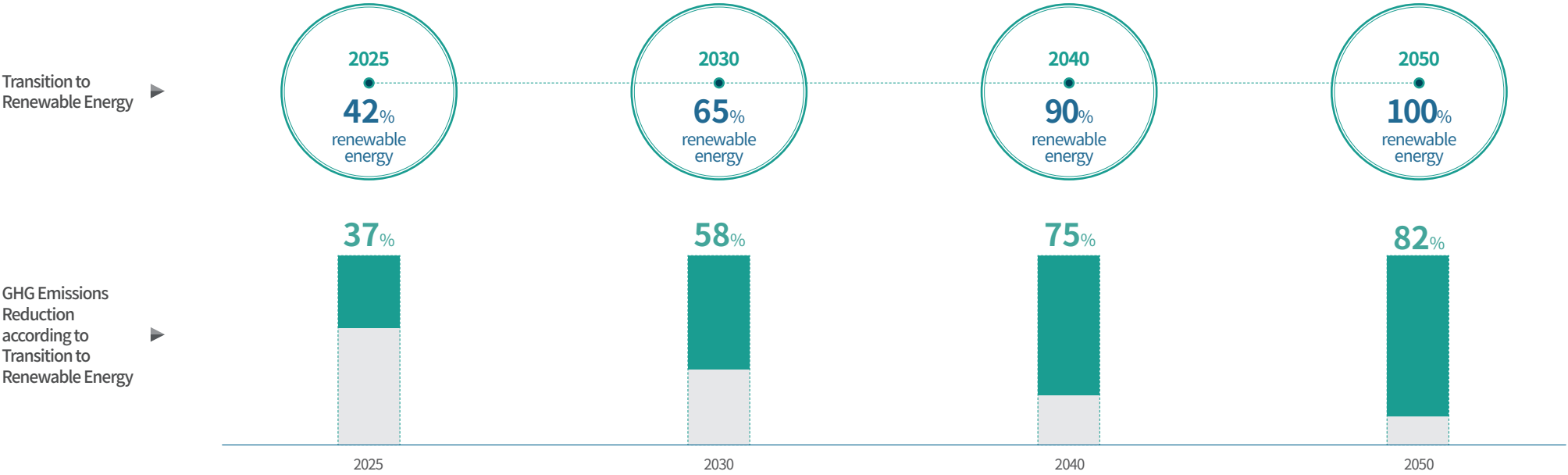
Action for Climate Crisis

Our Approach and Management Plan

Samsung SDI set a goal of fully transitioning to renewable energy to meet its power needs at domestic and overseas worksites by 2050 as a way to respond to the climate crisis. To reach this goal, we are considering a range of feasible options, including the purchase of renewable energy certificates and the signing of PPAs (Power Purchase Agreement). In fact, our Hungary and Tianjin corporations purchased renewable energy certificates for a portion of the power used in 2021.

We aim to fully shift to renewable energy for power consumption at Hungary and Tianjin corporations by 2025, and do the same for all our overseas corporations by 2030. Guided by our overarching goal of reaching 100% in renewable energy transition by 2050, we will make gradual switches – 42% by 2025, 65% by 2030, and 90% by 2040 – and this will allow us to reduce our GHG emissions by 87% by 2050 compared to BAU levels.

Carbon Neutrality Goal and Plan



Action for Climate Crisis

Governance

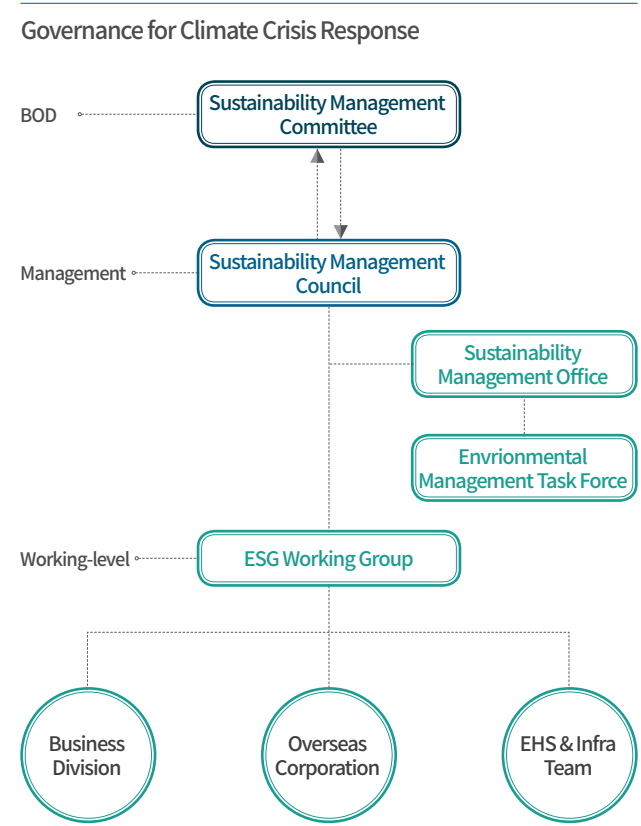
Our Board of Directors, executive management, and working-level employees engage in systematically managing climate-related risk and opportunity factors and other sustainability issues that may impact our business operations. The Sustainability Management Committee under the BOD is responsible for deliberating and deciding on climate-related corporate activities including climate crisis response strategies and policies.

As the C-level consultative body led by the CEO, the Sustainability Management Council functions to review climate crisis response strategies and discusses investment-related issues.

The Sustainability Management Office is tasked with identifying climate-related risks and opportunities and developing company-wide response strategies in alignment with our business strategies.

In tandem with this, the Environmental Management Task Force is implementing six improvement tasks. All such activities ensure that we discuss and manage major issues and response strategies to counter the climate crisis at the C-level, and any risks that may bring sizable impact on our business operations are deliberated and decisions are made through the Board of Directors.

Last but not least, the EHS & Infra Team plays a role in mitigating our GHG emissions through wide-ranging activities, by collecting and managing GHG emissions data and engaging in energy conservation effort.



Analyzing risk and opportunity factors¹⁾

We analyze climate-related risk and opportunity factors and develop response plans from the mid-to long-term perspective to effectively address the tightening global climate regulations and the needs of customers, investors and other stakeholders. Climate-related risks are categorized into transition risks and physical risks.

Transition Risk

Transition risks are segmented into regulatory & policy, technology, market, and reputation risks. To address regulatory & policy risks, we need to respond to emerging regulations such as carbon taxes, carbon border taxes, and EU’s battery regulation along with GHG emissions trading. If we do not properly respond to the obligations to disclose the carbon footprint of our battery products and meet the set threshold as stipulated in EU’s new battery regulation, this will make it difficult to sell our batteries in the European market and pose risk to our sales. Meanwhile, building an LCA calculation system to respond to this new regulatory framework over the mid-to long-term will enable us to leverage this system in developing less carbon-intensive batteries and render our products competitive in the future.

Technology risks refer to risks that existing products are replaced with low-carbon alternatives. As we produce key components for EVs and ESS that play an essential role in an upcoming low-carbon society, expanding R&D investments in such sectors will only boost our technology competitiveness, leaving minimal impact on our operations.

1) Used open-source data including those from the WRI and ThinkHazard!

Action for Climate Crisis

Market risks are classified into risks that our customers are exposed to and risks that Samsung SDI is exposed to due to customers. The former includes change in market supply and demand caused by the physical risk of the climate crisis, and this expected to be low as battery-powered products will see their market grow as they serve to help counter the climate crisis. Meanwhile, customers’ efforts to reduce their carbon emissions may result in increasing operational expenses and impact their ability to purchase batteries. Analyzing the GHG data of our major customers (through S&P Trucost) demonstrated that such financial impact risks would be low.

The risks that Samsung SDI is exposed to due to customers are demands of the transition to renewable energy and the reduction of carbon emissions generated from products. If we do not properly respond to such risks, this may result in lost business opportunities such as failure to win contracts. As such, we set a goal of reaching 100% in renewable energy transition by 2050, and are looking for cost-efficient ways to pursue this transition.

Reputation risks arise when we can’t engage in activities or make disclosures to address the climate crisis as requested by investors and other stakeholders, and may result in difficulties in attracting investments or lost business opportunities. Each year, we respond to the Carbon Disclosure Project (CDP) to share our data on how we respond to the climate crisis. We will also disclose our 100% renewable energy transition strategy, our carbon neutrality roadmap, and other initiatives that would be determined through our climate crisis decision-making system.

Physical Risk

Physical risks are categorized into acute and chronic risks. The former refers to floods, heat waves, or fires that bring physical impact to our assets in the short-term. This includes direct facility damages as well as the reduced availability of insurance for worksite assets and increasing insurance premiums caused by damages to worksite facilities.

Chronic risks may arise over the long haul as the sea level rises or high temperatures continue. Sea level rise may permanently inundate areas where our worksites are located and make our worksites and their assets less available for insurance subscription. We will respond to such risks by minimizing their potential impact on our business operations through continued monitoring and chronic risk assessments performed when reviewing new worksites.

Analysis of physical risks affecting Samsung SDI revealed that domestic worksites are exposed to risks that stem from typhoons, and worksites based in China, Vietnam and other Asian regions could be impacted by long-term temperature increases. Meanwhile, our worksite in Hungary which will become our key location for automotive battery production is relatively less prone to physical risks.

Risk management process

We have established a company-wide risk management process to manage the identified climate-related risks. Climate-related risk and opportunity factors are evaluated under the leadership of the Sustainability Management Council, our C-level consultative body for sustainability management, the Sustainability Management Office, the working-level body, and the ESG Working Group. Evaluation results inform our work to set priorities and develop response strategies to manage climate-related risks.

Internal Process for Risk Management



1. Infinite Safety	2. Move to Net-Zero	3. Partnership with Value-Chain Partners and Community	4. Accountability in Value-Chain	5. Credibility in Corporate Governance	6. Transparency in Stakeholder Engagement
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Action for Climate Crisis

Analysis of Risk and Opportunity Factors

Type of Risk		Risk	Duration ¹⁾	Financial Impact	Stakeholder	Our Response
Transition Risk	Present	GHG emissions trading schemes	Mid-term	Medium	Concerned governments	• Develop and implement Scope 1 emissions reduction strategies • Transition to renewable energy for power consumption across all worksites by 2050 through the purchase of renewable energy certificates and PPAs
		Carbon taxes, carbon border taxes	Mid-term	Medium	Concerned governments	• Transition to renewable energy for power consumption across all worksites by 2050 through the purchase of renewable energy certificates and PPAs
	Future	Proposal for an EU Regulation concerning batteries and waste batteries	Mid-term	High	EU governments Customers Partner companies	• Transition to renewable energy for power consumption across all worksites by 2050 through the purchase of renewable energy certificates and PPAs • Develop and operate an LCA calculation system to preemptively respond to the Proposal for an EU Regulation concerning batteries and waste batteries
	Technology	R&D investments in alternative technology for low carbon products	Short-term	Low	Customers Consumers Partner companies	• Invest in and commercialize technology to make low-carbon and high-efficiency products
	Market	Increasing financial burden associated with customers' cost of carbon	Mid-term	Low	Customers Partner companies	• Regularly assess market/customer changes caused by the climate crisis
		Increasing demand for renewable energy transition	Short-term	Medium	Customers	• Transition to renewable energy for power consumption across all worksites by 2050 through the purchase of renewable energy certificates and PPAs
	Reputation	Responding to climate crisis issues and disclosing climate-related risks	Short-term	Medium	Investors Customers Potential employees	• Develop and disclose strategies to respond to the climate crisis, including carbon neutrality strategies • Transparently disclose information on response to the climate crisis in accordance with the CDP and TCFD recommendations
Physical Risk	Acute	Typhoons, floods, heat waves, and fires	Short-term	Varies by worksite	Customers Partner companies Employees	• Check workplace emergency response manuals on an on-going basis • Bolster facility safety, subscribe to emergency insurance plans, etc.
	Chronic	Continued high temperatures, sea level rise and the resulting inundation	Long-term	Varies by worksite	Governments Communities	• Consider chronic risks when changing the business plan or reviewing new worksites

1) Risks are categorized into short-term (2022~2025), mid-term (2026~2031), and long-term (2032~) based on the duration of their impact. (e.g., The impact of GHG emissions trading schemes could be minimal in the short-term but may increase in line with decreasing allowances.) Physical risks are classified into short-term risks that bring abrupt impact in a short period of time and long-term risks that have gradual impact over the extended period of time, from the viewpoint of duration of concerned risks.

Action for Climate Crisis

Our Response to the Climate Crisis

Renewable energy transition

Samsung SDI is operating production facilities in Europe, the US, China, and Southeast Asia as well as in Korea. As these countries differ in their institutional aspects in embracing renewable energy and in the maturity of their renewable energy power market, we will factor in these distinctive conditions to effectively implement our renewable energy transition plans.

For our overseas production facilities, wide-ranging implementation plans are under review including the purchase of renewable energy certificates and the signing of PPAs (Power Purchase Agreements). Our Hungary and Tianjin corporations started their switch to renewable energy by purchasing renewable energy certificates in 2021, and are currently exploring and reviewing specific implementation plans to reach 100% in renewable energy transition by 2025. We will expand the use of renewable energy consecutively in other parts of the world.

In Korea, we participated in the green pricing pilot project in February 2020, and in the Renewable Energy Certificate(REC) trading pilot project undertaken by Korea Energy Agency in January 2021 to review tools and support programs to implement the RE100 (Renewable Energy 100%) initiative as well as the PPAs. While PPAs have not been widely available due to the inherent characteristics of the domestic power market, the amendment of applicable laws in 2021 made it possible to directly enter into renewable energy power supply contracts with renewable power generators, and this prompted us to consider PPAs as a feasible option.

Responding to the CDP

In line with the increasingly stronger demand raised by investors to disclose information on the climate crisis, we are transparently communicating our climate crisis strategy and our progress made in reducing GHG emissions through the Carbon Disclosure Project (CDP)¹⁾. As the impact of the climate crisis aggravates on the financial aspect of businesses, we are also conducting objective analyses to proactively respond to this challenge. In 2021, we made it onto the CDP's B score, and will make accurate and objective disclosures along with continued efforts to make necessary improvements by reporting our Scope 1 ~ 3 emissions, setting goals, and making progress accordingly.

1) A non-profit to evaluate businesses for their response to making disclosures on environmental data concerning GHG and energy for global companies, investors and cities

Global Company-wide Energy Investments and Achievements in Reducing Energy Use

Category	Unit	2019	2020	2021	
Total investments	KRW million	1,495	2,869	4,710	
Fuel saving activities	No. of cases	88	98	78	
Electricity & steam saving activities	No. of cases	543	667	595	
Savings generated	Total reductions made	TJ	1,679	1,640	1,741
	-Fuel reduced	TJ	321	396	247
	-Electricity & steam reduced	TJ	1,358	1,244	1,494
	Total savings generated	KRW billion	186	195	213
	-Fuel savings generated	KRW billion	38	44	28
	-Electricity & steam savings generated	KRW billion	148	151	185

Participating in the emissions trading system

Samsung SDI has participated in the GHG emissions trading system since 2015 pursuant to the nation's Framework Act on Green Growth. We systematically manage our emissions and goals through our MRV (Monitoring, Reporting, Verification)-based carbon management system and our s-GEMS IT system. Our efforts to mitigate GHG emissions allowed us to fulfill our obligation under the system even without purchasing GHG emissions credits for a total of six years during the first and second planning periods. There are countries other than Korea who are operating or planning to operate such emissions trading programs. Our Hungary plant is fulfilling its obligations in relation to emissions reporting as well as allowance allocation, management and submission as some of its facilities were covered by the EU Emissions Trading System (ETS) as of October 2021. While China has initiated its nationwide emissions trading system since 2021, Samsung SDI's local plant is not yet subject to this system. We will continue to monitor policy trends to ensure that we faithfully implement our legal obligations imposed under such emissions trading systems.

GHG Emissions Reduced at the Global Company-wide Level

Category	Unit	2019 ²⁾	2020	2021
Fuel	tCO ₂ e	16,306	17,662	12,494
Electricity & steam	tCO ₂ e	104,073	76,182	71,485
Total	tCO ₂ e	120,379	93,844	83,979

2) Reductions increased in line with change in the emission coefficient

Action for Climate Crisis

Energy Use Management

Major energy conservation activities

To reduce the energy consumed at our worksites, we provide our domestic worksites which consume a large amount of energy with technical support for energy conservation. For overseas worksites, we offer locally-hired staff technical skill-up training for the purpose of energy saving. In addition, completed energy conservation tasks are shared among domestic and overseas worksites to maximize energy conservation outcomes.

Achievements Made in Reducing Energy Consumption among Domestic Worksites

Worksite	Activity	Achievement
Cheonan	Reduce charge/discharge times by type of battery	Reduce power consumption
	Switch to energy-saving aeration blowers	Improve the efficiency of power consumption
Ulsan	Change the operational control method for heat furnaces	Improve power consumption
	Change the downtime management standards for dry ovens	Reduce power losses
Gumi	Rationalize the operation of refrigerator compressors for air conditioning	Improve the efficiency of power consumption
Cheongju	Switch to high-efficiency refrigerators	Cut air conditioning operational expenses

Reinforcing the energy management system at the worksite level

The external energy management system consulting project initiated for our domestic production locations in Cheonan and Ulsan among others in 2020 continued into 2021 to improve on the issues identified and increase the efficiency of our energy management system.

We have collected big data on standard energy dynamic quantities while analyzing facility-specific loads to make our management system more efficient. Facility operation managers were also provided with regular skill-up training on facility and unit physical quantity standardization, power quality assessment, and facility mechanism principles. To further conserve energy, analyses were performed on each business division for their energy use structure in line with changing energy conditions in Korea and abroad to define energy conservation activity goals and set the course for improvement.

The ‘Power Consumption Composition Innovation Task Force’ launched in March 2022 has invited external experts to identify key tasks for facilities that consume a large amount of power and work is underway to make necessary improvements.

Building infrastructure for EVs and electric buses

In 2019, we introduced electric commuter buses that do not generate environmental load during operation at our Giheung worksite, and have since equipped our domestic locations with EV chargers in their parking lots so that employees and customers can conveniently use their EVs.

In 2021, we joined the K-EV100, a project led by the Ministry of Environment to shift to zero-emission vehicles in the private sector. This initiative aims to drive businesses to switch to zero-emission cars for their corporate vehicles either owned or leased. Our goal is to make a full switch to EVs for our owned or leased business vehicles and build corresponding charging infrastructure by 2030.

EV Chargers Installed at Domestic Worksites

Worksite	Installation
Giheung	1 for buses, 21 for passenger cars
Cheonan	1 for buses, 4 for passenger cars
Ulsan	6 for passenger cars
Gumi	3 for passenger cars

Action for Climate Crisis

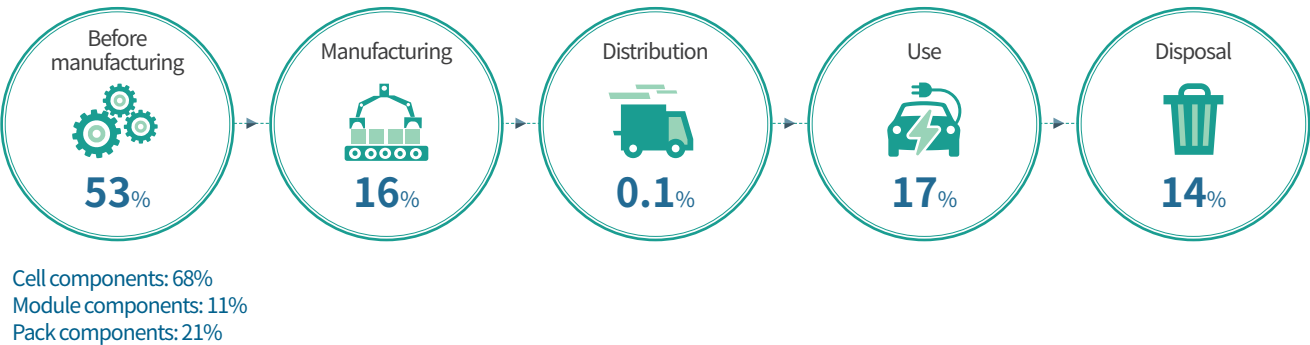
Managing the Environmental Impact of Products

LCA(Life Cycle Assessment) implementation

Life Cycle Assessments (LCA) are performed to identify environmental loads such as GHG emissions generated throughout the entire product lifecycle from the extraction of raw materials to product use and disposal and to analyze their substantial impact. We leverage LCAs to develop measures to improve our environmental impact, and have taken a step further to align our LCA process with the principles set out in ISO 14040 · 14044 and the PEFCRs (Product Environmental Footprint Category Rules) to respond to the (draft) EU battery regulation. As part of our efforts to advance environmentally friendly management, we are extending the scope of our products certified under carbon footprint programs to improve the environmental performance of our products. As the Proposal for an EU Regulation concerning batteries and waste batteries officially takes effect, businesses will be obligated to disclose the carbon footprint data of all EV batteries by 18 months, disclose carbon footprint performance ratings by 36 months, and comply with carbon footprint thresholds by 54 months after entry into force of the regulation. In response, we will bolster our internal capabilities to measure the carbon footprint of our products and continue with rigorous analyses of product environmental impact assessments and their outcomes to proactively mitigate our environmental impact. This will surely help cater to the environmental performance requirements of our customers and preemptively respond to the Proposal for an EU Regulation concerning batteries and waste batteries to elevate our sustainability.

LCA Performed on EV Battery¹⁾

Samsung SDI has conducted the impact of GWP(Global Warming Potential) of a battery pack product from the perspective of LCA. Based on the result of LCA, we will keep minimize the impact of our products on the environment.



1) LCA outcomes vary by product, and the numerical data in the above diagram is indicative of how much each phase contributes to GHG emissions

Circular Economy and Environmental Impact Management

Our Approach and Management Plan

The rapid growth of the battery market is expected to result in a surge in the generation of end-of-life batteries. Meanwhile, neither legally-binding regulations nor guidelines have been established yet both at the national and international level to safely collect and dispose of batteries discarded by end users. This prompted us at Samsung SDI to partner with governments and businesses specialized in relevant fields to proactively explore ways to recycle and reuse such batteries to eventually minimize the environmental impact generated from end-of-life batteries from the battery lifecycle viewpoint.

Raw mineral material recovery process

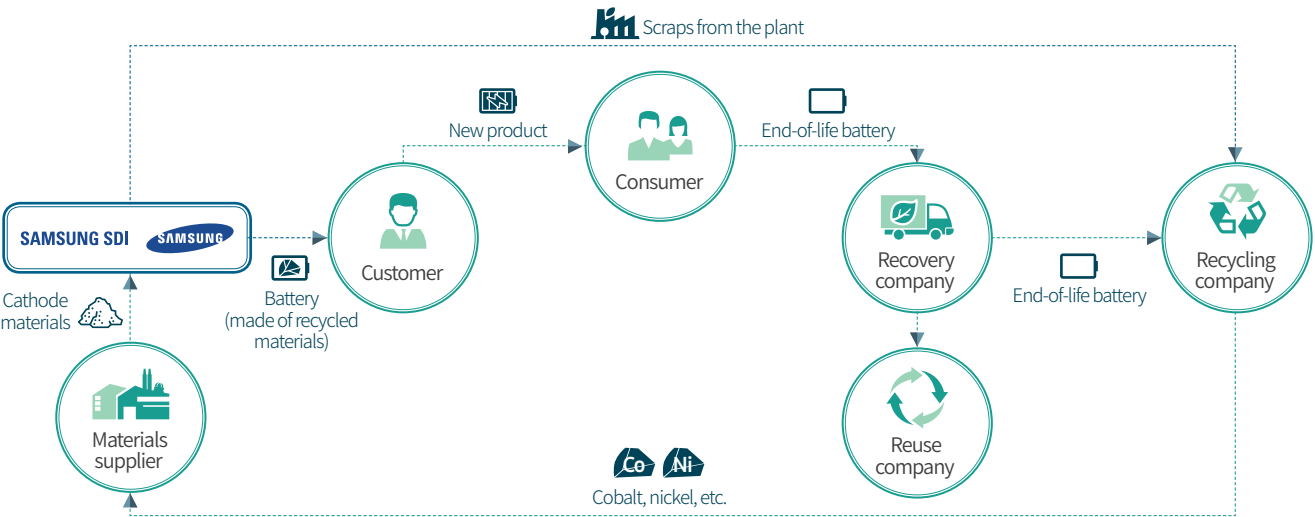
The closed-loop process to recover battery raw materials is operated in two distinctive ways. The first is to retrieve mineral raw materials from the scraps generated from the manufacturing process, and reclaim nickel sulphate, cobalt sulphate, and other minerals out of process scraps in partnership with professional recycling companies equipped with raw material recovery technology. The second is to recover mineral raw materials from the end-of-life batteries discarded by end users. Looking ahead, we will consider potential partnerships with automotive OEMs to develop a closed-loop resource recovery process.

The Proposal for an EU Regulation concerning batteries and waste batteries is likely to impose obligations on battery market players – battery makers and car OEMs – to recover, recycle and reuse end-of-life batteries while reclaiming mineral raw materials in the process. As such, Samsung SDI is developing plans to recover mineral raw materials from the end-of-life batteries discarded by end users as well as from the scraps generated from our plants.

Creating an R&D organization for end-of-life battery recycling

Our Battery ‘Recycle Research Lab’ was launched under our R&D Center to increase the recycling of end-of-life batteries and the recovery of raw materials. The Lab aims to conduct technology research to improve the recovery of battery materials and to reclaim materials in a low-cost, eco-friendly manner. New recycling technology will be also explored through technology cooperation with partner companies and industry-academia partnerships.

Samsung SDI’s Resource Recovery Process



Circular Economy and Environmental Impact Management

Recycling and Reuse

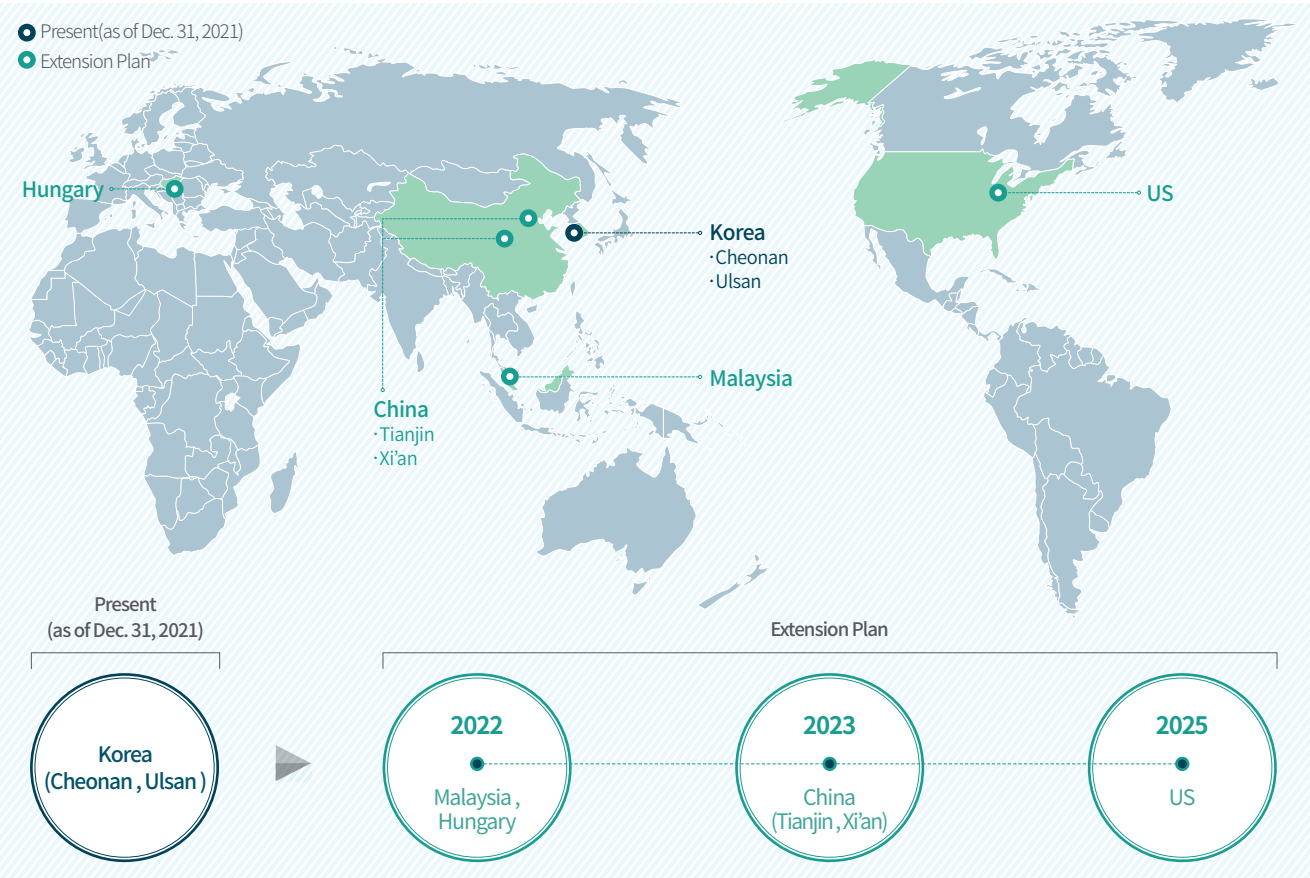
Progress made on recycling

We have established a scrap recovery system for our Cheonan and Ulsan plants to facilitate the recycling of mineral raw materials. The scraps generated from our plants are collected by professional recycling companies, who then extract such minerals as nickel sulphate and cobalt sulphate. These minerals are delivered to our battery material partners who feed them back into their raw/subsidiary material manufacturing process and supply them to Samsung SDI. In 2022, we plan to engage in a similar type of partnerships at our overseas locations in Hungary and Malaysia among others to increase the recycling of raw materials.

Progress made on reuse

We are exploring the possibility of reusing end-of-service EV batteries for ESS and other applications. As part of R&D efforts to this end, we are participating in an ‘end-of- service EV· ESS battery recycling industrialization project’ led by Jeollanam-do and a ‘reused, refurbished battery-powered, renewable energy-aligned MWh-capacity ESS technology development and demonstration’ project designed to review renewable energy-aligned ESS for battery reuse. Our plan is to examine the technical conditions and feasibility requirements to be met to reuse end-of-life batteries through R&D and demonstration project outcomes on battery reuse.

Samsung SDI’s Plant Scrap Collection Locations



Circular Economy and Environmental Impact Management

2025 Mid-term Environmental Targets¹⁾

Environmental Goal Indicators	Unit	Reduction Goal for 2022 (Baseline 2020)	Cumulative Reduction Goal for 2025 (Baseline 2020)
Intensity of water withdrawal	%	-14.1	-32
Intensity of waste discharge	%	-4.1	-10
Intensity of air pollutant ²⁾ emissions	%	-7.0	-17
Intensity of water pollutant ³⁾ emissions	%	-14.8	-33
Water reuse rate ⁴⁾	%	-	22
Waste recycling rate ⁵⁾	%	-	80

1) Reporting scope: All production facilities in Korea and abroad, excluding sales bases and offices, and the Headquarters and the R&D Center (as to production facilities, only those with production records for 2021 were included), Intensity: Calculated based on consolidated sales

2) Sum of NOx, SOx, and PM emitted

3) Sum of BOD, COD, and SS discharged

4) Water reused/withdrawn

5) Waste recycled/discharged

Safety Environment Management Policy

In April 2022, Samsung SDI has stipulated Safety Environment Management Policy to embody its commitment to creating a safe work environment and protecting the environment. This policy span the four areas of operating a global EHS management system, implementing environmentally friendly management, creating safe and healthy corporate values, and establishing an external green community.

We will fully embed this Safety Environment Management Policy into our business operations at all levels to bring positive impact to both Samsung SDI and all its stakeholders and advance sustainability management in so doing.



Safety Environment Management Policy

Samsung SDI Co., Ltd., a leading company in the fields of eco-friendly and global materials and total energy solutions, recognizes health and safety as a fundamental element of management, ensures a safe and healthy workplace, actively practices global environmental protection, and pursues socially responsible, sustainable management.

Safe Global Environment Management System

- The company complies with domestic and overseas laws, regulations, global standards and treaties pertaining to safety, health, environment, and energy, and establishes and faithfully enforces systematic internal standards for safe environment, zero-hazard compliance.
- In order to understand and practice a safe environment management system, the company educates all its employees and conducts all activities with a sense of responsibility and obligation through communication with stakeholders.

Eco-friendly Management Practice

- The company recognizes the importance of biodiversity preservation throughout its business activities and executes its responsibility in all production processes to minimize harmful environmental consequences throughout all the stages from raw materials, parts, and purchase of packaging materials, to product development, production, logistics, and disposal.
- The company actively reuses and recycles water and waste and continuously makes its best efforts to reduce use of chemical substances, energy, water resources, and polluting discharge.
- The company actively makes contributions to overcome the climate change crisis by expanding the use of reusable energy, reducing greenhouse gas emissions, preventing deforestation, and establishing a lawful carbon ecosystem.

Realization of Health and Safety-Oriented Corporate Values

- In order to ensure safe work conditions, the company creates a culture that's puts safety first, operates a prior risk management system for prior issue recognition, and risk factor prevention, realizes serious disaster prevention and an accident-free workplace, and maintains an emergency response system to maintain business continuity.
- The company creates a pleasant work environment, pursues health enhancement of employees, and strives to the best of its abilities to protect employees and local residents from epidemics and disasters.

Green Community-Oriented Public Image Creation

- The company shares and supports its safe environment-oriented management system with its partners to establish eco-friendly win-win partnerships, and makes contributions to local community development through continuous environmental preservation pursuits as a local community member.

April 27, 2022

Yoonho Choi, CEO

Circular Economy and Environmental Impact Management

Environmental management investment plans and achievements

Samsung SDI develops mid-to long-term environmental management investment plans to mitigate any adverse environmental impact generated from its business operations.

Each year, investment plans and their achievements are compared for six domestic worksites¹⁾ and six overseas corporations²⁾ to ensure our investments for environmental management generate intended results from the mid-to long-term viewpoint.

In 2021, we allocated nearly KRW 29.2 billion for investment, and our investment amounted to KRW 30.9 billion to reach 106% in target attainment.

Environmental Management Investments Made (unit: KRW million)	
Category	2021
Plan	29,281
Achievement	30,916
Rate of Investment Execution	106%

1) Worksites in Giheung, Suwon, Cheonan, Cheongju, Gumi, and Ulsan
2) Tianjin, Xi'an, Wuxi, Vietnam, Malaysia, and Hungary

Pollutant Management

Reducing the emission of air pollutants

Our internal air pollutant emission standards are more stringent than legally-mandatory ones. This enables us to strictly manage the emission of air pollutants generated from our worksites, and we operate optimized air pollution control equipment at each of our emitting facilities. Pollutants that are emitted to the atmospheric environment following their treatment are monitored for their compliance with our internal standards, and are managed for their emission trajectory.

To minimize the generation of particulate matters that are emerging as a serious social issue, we have switched to low-NOx burners for boilers used at our worksites. We have also shifted from organic to inorganic fuels for some of our processes as part of our sustained effort to reduce the emission of air pollutants.

Air Pollutants Emitted in 2021 (unit: kg)		
Category		2021
Air pollutants	NO _x	58,475
	SO _x	1,871
	PM	46,349

Reducing the discharge of water pollutants

To preserve our aquatic ecosystem, we have raised the bar in operating and managing our effluent treatment facilities to minimize the discharge of water pollutants. In particular, we introduced internal standards that are more stringent than the legally-permissible thresholds (30~50% of such thresholds), and operate water pollutant discharge monitoring devices to manage such pollutants generated from our worksites. Furthermore, the TMS (Tele-monitoring System) is operated to monitor the discharge of water pollutants in real-time even at those worksites that do not bear any legal obligation to install such a system to review their compliance with our internal water pollutant discharge standards. Furthermore, monitoring sensors were installed at chemical storage facilities and stormwater drainage outlets to prevent the discharge of water pollutants caused by chemical spills. To recover such pollutants that have already entered the stormwater passages, devices were installed to block their flow and collect them.

Water Pollutants Discharged in 2021 (unit: kg)		
Category		2021
Water pollutants	BOD	27,447
	COD	115,144
	SS	43,288

Circular Economy and Environmental Impact Management

Waste Management

Minimizing waste generation and ensuring their safe treatment

To minimize the waste generated from our manufacturing process, we take the waste-to-resource approach in improving our recycling rates. All of the end-of-life batteries generated from our R&D and process operations as well as the scraps generated from the manufacturing process are fully recycled with the help of recycling companies. We will explore recycling methods that also apply to batteries used and discarded by customers and end users. We request outsourcing companies to submit their confirmation on regulatory compliance to verify that they abide by applicable laws and ensure reliability in contracting out waste treatment and the lawful treatment of waste within our worksites. Our regulatory compliance opinions are also communicated to these outsourcing companies to make sure that waste is processed in a legally appropriate manner. Our plan for 2022 is to earn Zero Waste To Landfill (ZWTL) Gold Validation for domestic production facilities to raise our profile and brand value as an environmentally-friendly business.

Waste Management in 2021 (unit: Ton)

Category	2021	Category	2021
Domestic waste recycling rate	96.0%	Overseas waste recycling rate	89.7%
Total generation	74,151	Total generation	100,992
- General waste	36,411	- General waste	52,105
- Designated waste	37,740	- Designated waste	48,887
Amount recycled	71,199	Amount recycled	90,569
Amount landfilled	159	Amount landfilled	4,408

Water Resources Management

Managing water use and effluent discharge

We endeavor to reduce our water consumption and manage water quality at an appropriate level. To minimize the amount of chemicals used to operate manufacturing facilities, we have altered our process method to curb the use of such harmful chemicals as hydrochloric acid and caustic soda and mitigate the generation of effluents accordingly.

Water Withdrawal in 2021 (unit: Ton)

Category	2021
Domestic	Giheung 164,174
	Suwon 94,874
	Cheonan 931,568
	Cheongju 1,013,559
	Gumi 371,308
	Ulsan 1,443,448
	Subtotal 4,018,931

Category	2021
Overseas	Malaysia 863,020
	Tianjin 1,533,280
	Wuxi 1,040,399
	Xi'an 291,059
	Hungary 910,458
	Vietnam 57,832
	Subtotal 4,696,048

Effluent Discharge in 2021 (unit: Ton)

Category	2021
Domestic	Giheung 1,015
	Suwon 27,287
	Cheonan 771,682
	Cheongju 376,846
	Gumi 217,510
	Ulsan 644,234
	Subtotal 2,038,574

Category	2021
Overseas	Malaysia 175,795
	Tianjin 126,097
	Wuxi 617,931
	Xi'an 98,805
	Hungary 292,882
	Vietnam -
	Subtotal 1,311,510

In 2021, we set a goal of reducing the use of hazardous chemical substances such as sulfuric acid and caustic soda to zero. We also cut off the source of high-concentration acidic and alkaline effluents while rationalizing processes to improve the storage, transport and treatment facilities of organic/inorganic effluents at our battery production locations.



Establishing the manufacturing and quality capabilities of partners along the value-chain is an essential prerequisite to build a wholesome industrial ecosystem and a paramount factor for ensuring our global competitive edge at Samsung SDI. Companies bring positive impact to their communities by generating tax revenues and creating jobs, and in return, their business is made more sustainable with the support and assistance extended by these communities.

Samsung SDI provides both tangible and intangible support to partners to help bolster their manufacturing capabilities. We also endeavor to disseminate fair trade practices with first-tier partners and between second-tier and third-tier partners. Furthermore, we operate environmental and science educational programs for teenagers in consideration of our industrial characteristics, doing our part in giving back to society.

KPI

Area	Achievement	Unit	2019	2020	2021
Value-Chain Partnership	Financial activity support ¹⁾	KRW 100 million	596	587	810
	Signing of the Fair Trade Agreement ²⁾	No. of companies	109	110	111
Togetherness with Community	Participation in CSR activities	%	97.8	99.1	93.6
	CSR expenditures ³⁾	KRW 100 million	109.9	102.7	134.4

1) Sum of direct support, the win-win fund raised, and special support
2) Based on the shared growth agreement signed between Samsung SDI and first-tier partners
3) Sum of management costs, cash costs (donations) and time costs
※ Scope of the Index: Korea

Value-Chain Partnership

Our Approach and Management Plan

Under our win-win cooperation promotion system, we implement three win-win growth tasks to create a mutually-cooperative ecosystem under the motto of ‘Growth into a Global Leader through Win-Win Cooperation’. We abide by the principles of fair trade to facilitate fair and free competition, and assist partners in boosting their competitiveness and laying the basis for sustainable growth to progress farther ahead with partners than when we go alone.

Definition of partners

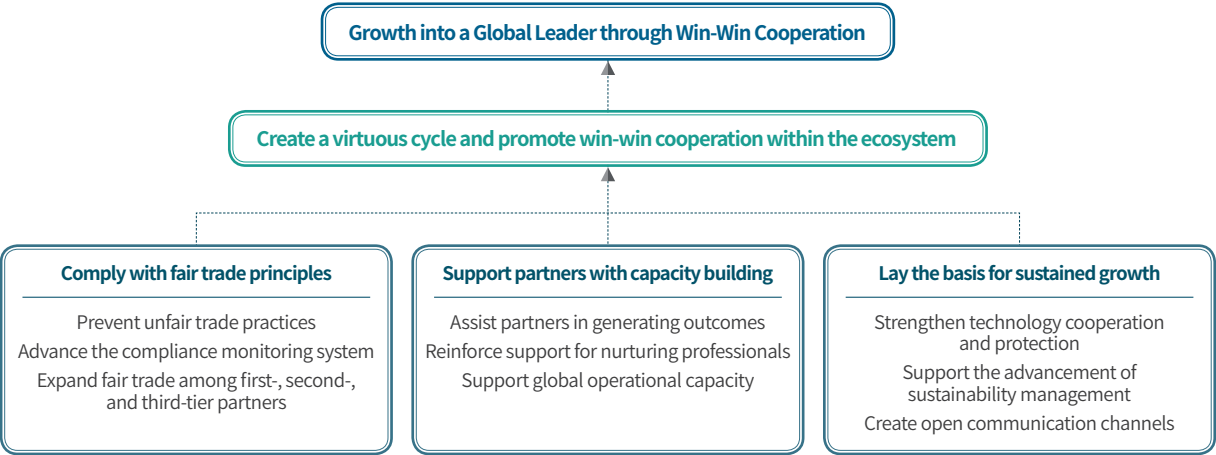
We classify our supply chain partners into first-, second-, and third-tier partners. First-tier partners supply raw materials and components that go into our components and products, and second- and third-tier partners provide raw/subsidiary materials to first-tier partners. We specifically define the suppliers of key raw materials and components that may immensely impact our manufacturing and business operations as primary partners, and continue to promote win-win cooperation through wide-ranging support. In selecting and managing partners, we perform paper-based assessments and due diligence to ensure transparency and fairness in building our supply chain.

Partner Code of Conduct

The ‘Samsung SDI Partner Code of Conduct’ sets out proper behavioral guidelines for partners to follow in doing business with Samsung SDI. The Code stipulates how our partners should conduct in the areas of human rights, labor, health & safety, environment and ethics in line with the standards of such international organizations as the RBA (Responsible Business Alliance), the ILO, and the ISO. Each and every partner is required to sign the consent form to abide by the Code in entering into contract with us to raise their awareness to advance sustainability management.

In the event that our partners fail to honor the Code, we recommend them to take improvement measures. If their non-compliance continues or no improvement is made, we restrict our future transactions with them.

Win-Win Cooperation Promotion System



Operating the Samsung SDI Partners’ Association

To promote interactions with partners, we operate the ‘Samsung SDI Partners’ Association (SSP)’, which consists of the subcommittees of materials, components and equipment. The SSP is newly launched every two years, and the 9th SSP established in 2020 was joined by a total of 41 partners to share information on internal and external management status and strengthen strategic partnerships. In 2021, its general meeting went online amid COVID-19. Our goal for 2022 is to actively engage in benchmarking, seminars, subcommittee meetings, and Shared Growth Day events through the SSP to help generate synergy among partners.

Value-Chain Partnership

Establishing Fair Trade

Fair trade principles

To establish transparent transaction practices, we make it a rule to use the standard contract form in doing business with partners, and observe the four action principles stipulated and amended by the Fair Trade Commission to promote compliance with subcontract regulations.

4 Action Principles

Execution of desirable agreements

Fair selection and registration of partners

Operation of unfair trade practice prevention and monitoring systems

Issuance and retention of written agreements

Supporting the Signing of the Fair Trade Agreement

Samsung SDI's endeavors to create a culture of fair trade between Samsung SDI and its first-tier partners, and among partners. We support partners to conclude the fair trade agreement among themselves and encourage them to improve their payment criteria so that payments could be made in cash within 30 days. Official documents are sent to call for cooperation in mainstreaming the signing of the standard subcontract agreement between first- and second-tier partners, and the application of the agreement is monitored.

Performance in Supporting the Signing of the Fair Trade Agreement

Category	Unit	2019	2020	2021
Samsung SDI – First-tier partners	No. of companies	109	110	111
First-tier – Second-tier partners	No. of cases	120	129	136
Second-tier – Third-tier partners	No. of cases	42	40	45

Laying the Basis for Partners' Growth

Management consulting for partners

Samsung SDI has provided win-win cooperation consulting since 2020 to support partners to improve the efficiency of their business operations. Consultants, who previously served as executives at Samsung SDI, draw on their extensive field experience, management know-how and expert knowledge to offer management advice to meet the needs of partners, and assist partners in improving their management competency and boosting their overall competitive edge. The Voice of Partners (VOP) program is also implemented to collect complaints raised by partners. In 2021, 19 projects were undertaken for 12 partners through our management advisory activities.

Management Advisory

Development/Quality
New product development, technology strategy, technology development roadmap, New material/process/facility development

Management
Overseas production facility operation, audit process, Operational manufacturing system, SCM KPI operation

Development/Business strategy
New business/product development strategy formulation, Product competitiveness/differentiation improvement plan

Quality/Marketing
Quality assurance strategy setting & development process development, Development and mass-production quality assurance system development

Assisting partners with talent recruitment

Leveraging the training system and infrastructure available at the Samsung SDI Training Center, we assist partners in providing training to employees to strengthen their capacity. The training curriculum consists of 29 courses on job skills, quality management, process management, and business administration, which were attended by 1,151 employees from 89 partners in total on 46 occasions in 2021. We also help partners with recruitment and talent development training so that our partners hire talented individuals armed with both job skills and desired personality characteristics. In 2021, our recruitment and development support program helped create jobs for 73 persons at three partners.

Ulsan Training Center recognized for exceptional performance

As part of the Consortium for HRD Ability Magnified Program (CHAMP) designed to support capacity building for workers at SMEs and job seekers, we have operated our 'Ulsan training center' at our Ulsan worksite since 2004. The center was named an excellent training center for two consecutive years (2019~2020) to demonstrate its exceptional performance. Including 1,151 persons who graduated in 2021, the center has trained 12,080 persons between 2004 and 2021 on a cumulative basis.



Awarding Joint Training Centers for Outstanding CHAMP Performance

Value-Chain Partnership

Providing financial support for partners

We have teamed up with financial institutions to provide financial support to partners to help stabilize their business operations through the win-win growth funds and joint project guarantees.

The KRW 130 billion win-win growth funds were raised in conjunction with the Industrial Bank of Korea, and the interest income generated goes to support our partners to pay interest on their loans. As of 2021, 52 partners benefited from the funds.

Joint project guarantees are provided by the Korea Credit Guarantee Fund to partners who jointly undertake projects with Samsung SDI by assessing the feasibility of these projects. Guarantees valued at KRW 15.5 billion were offered to 10 partners.

Boosting Win-Win Cooperation

Improving partners’ manufacturing capabilities

We engage in continuous manufacturing innovation along the supply chain to help partners bolster their manufacturing capabilities. Specifically, manufacturing innovation activities were implemented at the request of Osung Advanced Materials, a partner for our Electronic Materials Business, on two occasions in 2020 and 2021. The goal of such activities was to reduce the time taken for device change and to improve on defects caused by impurities. Third-party consultancies and Samsung SDI’s manufacturing technology experts identified difficulties pinpointed by the company and performed on-site checks.

Tasks required to reduce the time taken for device change were identified, including changing the design of device coupling parts and the fuel tank as well as pipe joining methods. Furthermore, improvements were made on the causes for process impurities while management methods were standardized to address defects that stem from impurities. As a result of such innovation activities, 21 out of 22 tasks were completed.

Support of building a smart factory system for partners

Since 2021, Samsung SDI has teamed up with two affiliates²⁾ to allocate budget in supporting win-win smart factory development to help partners boost their manufacturing competitiveness. This project provides three types of support depending on the size and conditions of partners. We share our manufacturing know-how and provide support in quality and productivity improvement for partners to pursue innovation on the shop floor while assisting partners in establishing ICT-enabled operation and manufacturing automation systems for their production facilities. 7 partners has been participated in this project. The smart factory system is set up in 2 partners in May 2022, while 5 partners will have the system in July 2022.

Operating the benefit sharing system

The benefit sharing system aims to facilitate win-win cooperation with SMEs. Under this program, companies placing orders and companies landing such orders collaborate in diverse ways to attain the set common goal, and share the benefits generated accordingly. In 2021, we identified six tasks and collaborated with a total of six partners to implement these tasks in the first and second half of the year. In so doing, all of the set common goals were attained, including reducing defects and improving production quantity per man hour and quality, and partners were able to elevate their manufacturing competitiveness in line with process improvements and the resulting productivity gains.

Innovation Task Execution Outcomes (unit: No. of cases)

Category	Reduce the time taken for device change	Improve on chronic defects	Improve on defects from impurities	Total
No. of tasks identified	6	11	5	22
No. of tasks completed	5	11	5	21 ¹⁾

1) One task that was not completed was carried over to 2022 as its investment expenses exceeded the set target.

2) Samsung Electro-Mechanics, Samsung Electronics

Togetherness with Community

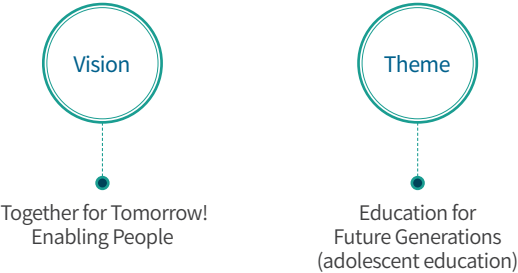


Our Approach and Management Plan

Samsung SDI, guided by its CSR vision of ‘Together for Tomorrow! Enabling People’, is making the world a better place and helps children and adolescents dream a big dream and unleash their full potential. Amid the prolonged COVID-19 pandemic, 2021 was another challenging year and difficulties continued across our society. In the face of this all, we developed and harnessed online education platforms to ensure that such hardships do not cause any disruption to our educational support for teens.

Since we re-defined our CSR vision and themes in 2019, we have remained focused on teen education and community programs to enable capacity building for our future generations. From 2022 onwards, we will partner with Samsung affiliates to jointly operate Samsung’s leading CSR programs and bolster the expertise and social contribution of respective programs in search of more effective ways to give back to our society.

Our Approach to CSR



Flagship Educational Programs

Green Planet Environment School

Samsung SDI has operated ‘Green Planet Environment School’ as an environmental and energy educational program for children since 2011. This hands-on learning program helps elementary school students to recognize the importance of environmental protection and proper energy use.

A wide array of environmental education and experience-based activities are implemented to help learn about renewable energy and experience global warming and eco-friendly means of transport. As COVID-19 continued to make it virtually impossible to engage in in-person education, we expanded the virtual environmental education platform that we introduced as a pilot run in 2020 to make this experience-driven environmental education available for elementary school students nationwide beyond any spatial limitations.

In 2021, a total of 3,572 students benefited from our environmental education program to bring the cumulative number of participants to 41,124 persons.



Green Planet Environment School – Virtual learning

Green Planet Dreaming School

The nation-wide introduction of the free-semester system across middle schools in Korea spurred demand for educational donation programs led by businesses to respond to this new governmental policy. This drove our decision at Samsung SDI to operate ‘Green Planet Dreaming School’ in alignment with the free-semester system since 2019 to contribute to the more effective implementation of the nation’s educational policy.

Since 2021, we have provided environmental education on an online platform as COVID-19 caused a challenging environment to provide students with on-site classes. We expanded the science study class offered at two middle schools in the vicinity of our Giheung worksite from four in-person sessions to eight online sessions as a pilot project in the first half of 2021. In the second half of the year, we extended the scope of this pilot project to middle schools located in the vicinity of our five worksites¹⁾ by leveraging the teaching aids and materials that we independently developed just for this program. In 2021, a total of 401 students participated, and 4,152 students benefited from this program on a cumulative basis.



Green Planet Dreaming School – Virtual learning

1) Worksites in Giheung, Suwon, Cheonan, Cheongju, and Ulsan

Togetherness with Community

Green Planet Future Science School

We have operated ‘Green Planet Future Science School’ for underprivileged children who spend their afterschool hours at local children centers in the vicinity of our domestic worksites since 2016. This program has been made available on an online platform since 2021 to reach educationally-underserved children irrespective of their location. In the course of 2021, a total of 2,414 students joined this program, and the cumulative number of beneficiary children amounted to 6,712 since 2016.



Green Planet Future Science School – Virtual learning

Blue Elephant

Under the CSR vision of ‘Together for Tomorrow! Enabling People,’ five Samsung affiliates including Samsung SDI¹⁾ operate ‘Blue Elephant’ to protect adolescents from cyber violence. In 2021, we engaged in cyber violence prevention training, therapeutic counseling, prevention culture development and academic research to keep teens safe online and prevent cyber violence. The second Blue Elephant online forum was also hosted to invite domestic and international experts to discuss ways to cope with cyber violence which is exacerbating in the wake of COVID-19. With a goal of eradicating cyber violence in our society, Blue Elephant plans to conduct cyber violence prevention activities to three million people by 2029.



Blue Elephant – Online Forum to protect teens from cyber violence in 2021

Samsung Software Academy For Youth (SSAFY)

Five Samsung affiliates including Samsung SDI¹⁾ jointly operate the Samsung Software Academy For Youth (SSAFY) to provide young people wishing to pursue their career path as software developers with theoretical and practice-based education for one year to help them become more competitive in the job market. Trainees take basic-level courses on algorithms, coding, and web technology among others, and move on to the advanced level to develop competencies for 4th Industrial Revolution technologies such as AI and IoT. From Class 1 to Class 5, a total of 2,785 students completed this program, and 2,199 of them or 79% of total landed a job across wide-ranging fields from IT to finance as of early 2022. Presently, nearly 1,700 students from Class 6 and 7 are attending the academy.

1) Samsung Electronics, Samsung Display, Samsung SDI, Samsung Electro-Mechanics, and Samsung SDS



Samsung Software Academy for Youth – Entrance ceremony For SSAFY Class 7

Togetherness with Community

Other Virtual CSR Activities

Dream Walking

On the occasion of our anniversary each year, we launch ‘Dream Walking’ activities to ensure that our future generations fully enjoy their right to breathe clean air. Funds are raised in proportion to the number of steps taken by our employees to create School Forests to help reduce the level of particulate matters for elementary schools in the vicinity of our worksites. In 2021, nearly 6,900 employees took over 1.2 billion steps to contribute to creating a School Forest for Gwangpyeong Elementary School located in the vicinity of our Gumi worksite. We will continue to build school forests to promote the healthy growth of our children under the clear blue sky without any worries over air pollution.



Dream Walking – School Forest signboard hanging ceremony at Gwangpyeong Elementary School in Gumi

Hands-on – Environmental Education Books

As part of our educational donations made for children and teens, we engage in the direct hands-on production of ‘Environmental Education Books’. In 2021, over 2,800 employees volunteered to make a pop-up book that helps children learn the importance of ‘water’ and its circulation process. Copies of this pop-up book were donated to young readers at local children centers nationwide. Going forward, Samsung SDI will continue to inspire children to care for the environment and educate the value of water for future generations.

Hands-on – Putting Their Heart Into Every Stitch

In 2021, nearly 300 employees at our Electronic Materials Business engaged in hands-on activities to produce supplies for underprivileged children in the Family Month of May. More than 500 ‘cloud bread dolls’ and copies of ‘tactile books’ were made and donated to children waiting for adoption in Korea and overseas and children from single-parent homes or taken care of by grandparents respectively.



Hands-on – Environmental education book

Hands-on – Greedabangnemo

Our ‘Greedabangnemo’ hands-on program sponsors artists with developmental disabilities and the exhibition of their works. Our employees paint on a small-sized canvas and exhibit their works along with those created by artists with developmental disabilities. In 2021, more than 3,300 employees joined this program with a theme of endangered animals, and the exhibition was held in Cheonan in virtual settings. Samsung SDI will continue with its mutually-beneficial partnerships to gather together people with disabilities and those without to create an inclusive and flourishing future for all.



Hands-on – Works created by Samsung SDI employees and displayed for the Exhibition for ‘Greedabangnemo’

1. Infinite Safety

2. Move to Net-Zero

3. Partnership with Value-Chain Partners and Community

4. Accountability in Value-Chain

5. Credibility in Corporate Governance

6. Transparency in Stakeholder Engagement

Togetherness with Community

Environmental Cleanup Activities

Environmental Cleanup Activities in the vicinity of worksites

Samsung SDI has performed cleanup activities in the vicinity of worksites to be responsible for the environment and the win-win relationship with local communities. Employees of Cheongju plant planned and participated in an environmental cleanup activity called 'Protect the Earth' to celebrate the Earth Day on April 22. We provided citizens with cleaner streets by collecting wastes on the street near Cheongju plant.

Our Gumi plant was involved in 'Eco Plogging' with the local community. This was the voluntary participation of employees committed to the environment protection, and we collected waste by walking along the stream in the vicinity of Gumi plant.



Gumi plant- Eco Plogging Activity

CSR Activities at Overseas Corporations

Hungary – Samsung SDI Newborn Baby Program

Our Hungary corporation partners with volunteers in Göd where it is based to provide gifts to newborn babies under the 'Samsung SDI Newborn Baby Program'. Volunteers made eco-friendly supplies for newborns with recycled and naturally-derived materials and donated them to more than 150 households. Going forward, we will explore even more CSR programs in the mutually-beneficial journey that we take along with our communities.



Hungary corporation – Delivering supplies donated under the Samsung SDI Newborn Baby Program

Austria – Samsung SDI Running and Walking Week

Our Austria corporation celebrated the 'Samsung SDI Running and Walking Week' for five days between June 14 to June 19, 2021. This was initiated amid COVID-19 which banned all sports events since 2020. Our employees walked or ran in their personal time and the company donated 1 euro for every 1 km that was walked or ran. The 3,703 euros raised as such was donated to the Styrian pediatric cancer treatment body council which helps children with cancer. We will encourage employees to join this meaningful initiative in 2022 to make greater donations.



Austria corporation – Delivering the donations raised under the Samsung SDI Running and Walking Week initiative



The increasingly globalized and sophisticated value-chain makes it even more challenging to respond to risks that may arise along the value-chain. Competent authorities in the US and Europe are mulling over regulations to hold companies accountable for ESG risks that occur across their global value-chain. As electronic materials and battery raw materials are primarily found in areas with high ESG risks, this highlights the importance of fulfilling social responsibility within the value-chain as an essential prerequisite in building a company’s competitive edge for the future.

Samsung SDI has operated the S-Partner system since 2009 to monitor and manage ESG risks that may occur at its partners, and responsibly sources the minerals it consumes to manage risks that may stem from the procurement of raw materials. Besides, we plan to implement an internal ESG Audit system to address human rights/ environmental/social risks that may arise within our Company.

KPI

Area	Achievement	Unit	2019	2020	2021
SCM Risk Management	Certified S-Partners	No. of companies	90	55	75
	Partners subject to S-Partner re-assessments	No. of companies	4	3	3
	Third-party audits on cobalt smelters and refiners ¹⁾	%	88	92	96
Labor/Human Rights	Employee grievances submitted ²⁾	No. of cases	1,083	1,193	1,245
	Female managers	%	10.5	11.2	12.0

1) Smelters and refiners participating in third-party audit programs are included
2) Grievance handling rate is 100%
※ Scope of the Index: Korea

SCM Risk Management

Executive Vice President
and Head of Purchasing
Team

Ikhyeon Kim



ESG management has moved beyond the realm of mere regulatory compliance to become an imperative that determines a company’s sustainable survival. While batteries form a critical pillar of global clean energy infrastructure for their role in carbon-neutral energy storage, they are also exposed to human rights and environmental risks among others across the entire supply chain from raw materials to mines and smelters. As the Proposal for an EU Directive on Corporate Sustainability Due Diligence looms large, companies could be obliged to meet the set standards to win any contract. In response, Samsung SDI will advance its third-party due diligence process for the whole of its supply chain management including minerals and fully establish a metal recycling system to embed the ESG philosophy into its supply chain and make this an essential source of its competitive edge. Such preemptive and proactive endeavors will surely enable us to turn this crisis into opportunity.



Our Approach and Management Plan

Our S-Partner Certification system aims to manage ESG risks that may arise along our supply chains by verifying our partners for their non-financial risks in the areas of workplace safety, environment and human rights. As part of on-site audits, we also provide training on labor and environmental trends among others in addition to conducting ESG risk assessments to assist our partners in swiftly identifying the recent regulatory amendments made in relation to ESG risks. As environmental and social issues including child labor, human rights violation and environmental pollution are raised along the raw material supply chains that involve our second- and third-tier partners, we join global responsible mineral sourcing initiatives along with our customers and partners. In so doing, we remain committed to making our sourcing practices transparent and responsible across the entire raw material supply chain, from mining and processing to procurement.

Managing Partners’ Sustainability

Operating the S-Partner Certification system

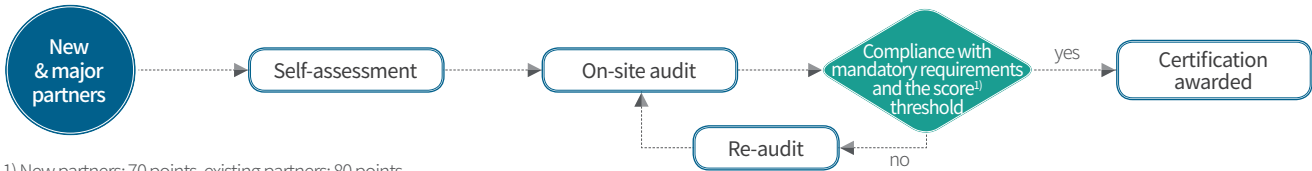
Samsung SDI has been operating the S-Partner Certification system to ensure the sustainability of its supply chain since 2009. This system allows us to assess and certify our partners for their compliance with our Code of Conduct in line with the standards recommended by such international organizations as the RBA (Responsible Business Alliance), the ILO, and the ISO. Biennial assessments are performed on major

partners who provide us with raw/subsidiary materials with a focus on labor, ethics, environment, and health & safety risks. Since the outbreak of COVID-19, compliance with COVID-19 prevention guidelines and implementation of their specific rules were added to the health assessment category.

SCM Risk Management

The S-Partner Certification Assessment process begins with self-assessments made by partners, and then proceeds to on-site audits performed by third-party professionals and follow-up measures. For issues identified as a result of on-site audits, partners are required to submit their improvement plans within one month, and re-audits are performed on those who fail to meet mandatory compliance requirements or the set score threshold to achieve certification. Meanwhile, the zero-tolerance principle is applied to critical categories including child labor, forced labor, pollutant discharge, and environmental approval to demand thorough compliance on the part of partners. In 2021, on-site audits were conducted on 33 domestic and 5 overseas partners, and 37 overseas partners received paper-based audits instead amid COVID-19.

S-Partner Certification Assessment Process



1) New partners: 70 points, existing partners: 80 points

S-Partner Certification Assessment Outcomes				(unit: No. of companies)
Category	2019	2020	2021	
Domestic	Certification terminated	50	24	26
	New partner	16	2	4
	Re-audit	4	3	3
	Total	70	29	33
Overseas	Certification terminated	20	26	37
	New partner	0	0	5
	Re-audit	0	0	0
	Total	20	26	42
Total	Certification terminated	70	50	63
	New partner	16	2	9
	Re-audit	4	3	3
	Total	90	55	75

S-Partner Certification Assessments and Corrective Actions Taken			(unit: No. of companies)
Category	2020	2021	
Partner assessments	Partners who are subject to assessment	63	75
	Partners who received actual assessments	59	75 ²⁾
Corrective actions taken for identified issues	Partners identified as in need of improvement	55	38
	Partners who submitted improvement plans	55	38
Partners whose contract was terminated due to corruption		0	0

2) Paper-based audits were performed on 37 overseas partners

Areas Where Major Improvements Were Made under the S-Partner Certification System in 2021

1. Environment	
Management of the discharge of pollutants including effluents and solid waste	3 cases
Review of atmospheric emission facility management	2 cases
Storage and management of chemical substances	2 cases
2. Environmental/health & safety system	
Achievement of the ISO 14001/45001 management system certifications	1 cases
Education and training	4 cases
3. Safety/health	
Worker protection concerning high-risk machinery	29 cases
Distribution of personal protective equipment	17 cases
Fire/emergency response manuals	13 cases
4. Labor	
Compulsory labor/non-voluntary work prevention process	5 cases
Forced labor verification process for suppliers	18 cases
Wage-related operational regulations and the notice of the resignation process	13 cases
Maternity protection regulations (overtime work, high-risk work, etc.)	17 cases
5. Ethics	
Whistleblower identity protection regulations/procedures	37 cases
Anti-corruption program for partners and subcontractors	38 cases

SCM Risk Management

Responsible Minerals Sourcing

Responsible sourcing policy

Samsung SDI strongly demands that all its partners supplying raw and subsidiary materials abide by its responsible minerals sourcing policy and its supply chain code of conduct, along with continued monitoring and improvement activities. In addition, regular trainings and meetings are held to publicize our policy and improve awareness among internal/external stakeholders including customers, investors, senior management and the purchasing department as well as partners.

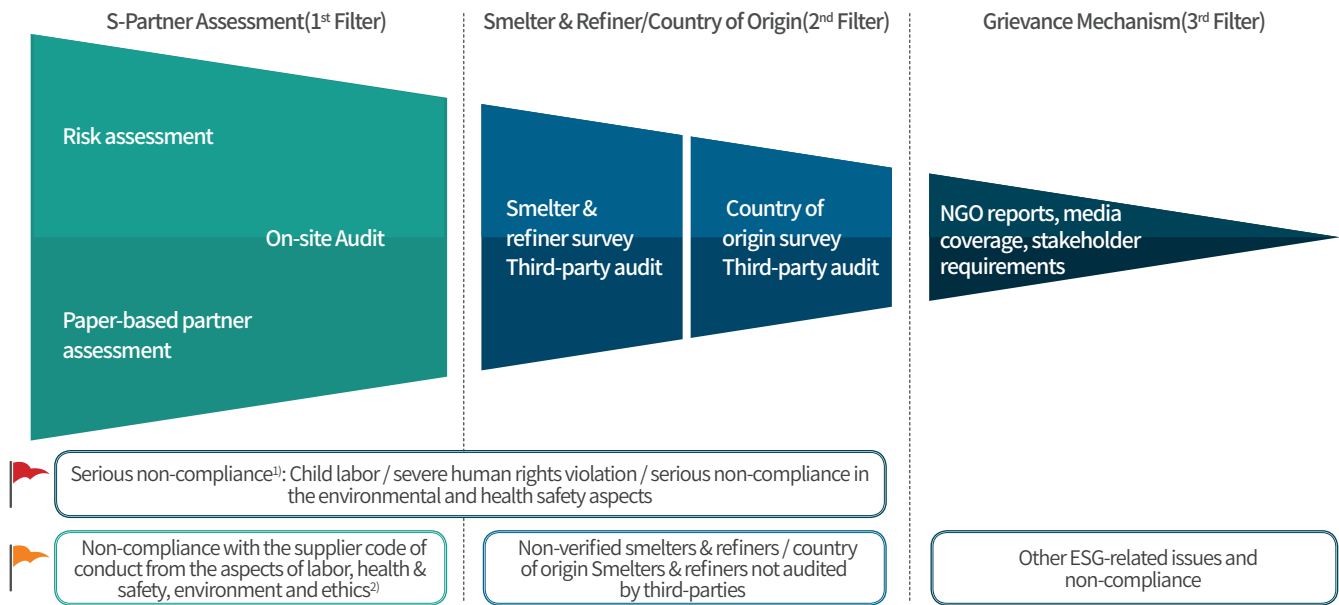
Establishing traceability along the supply chain and managing risks

Each year, we survey all our suppliers of cobalt and other major minerals in need of verification for their possible social responsibility risks along the entire supply chain, spanning mining, distribution and processing. Since 2020, we have gradually extended the scope of such surveys from the four conflict minerals of tantalum, tin, gold and tungsten to nickel, lithium, mica, graphite, and all other minerals identified as having adverse impact from the environmental and social aspects. In 2022, we aim to perform third-party audits on the supply chain of such key minerals as cobalt, lithium and nickel among others to establish full traceability for their supply chain and further validate our survey results.

Risk due diligence system

We operate a risk due diligence system which applies to all our suppliers of raw and subsidiary materials. Risk due diligence outcomes inform our work to identify risks along our mineral supply chains and to develop and implement risk mitigation plans with suppliers.

Samsung SDI’s Supply Chain Risk Due Diligence Process



1) Serious non-compliance: In the event of serious non-compliance, suppliers are required to take immediate improvement measures, and even to suspend their supply when needed through reviewing the severity of the issue at hand and other relevant information

2) Non-compliance with the code of conduct: Refer to general non-compliance with the supplier code of conduct that could be improved, and progress is monitored through the submission of improvement plans or audits

SCM Risk Management

Responsible Minerals Sourcing

Third-party audits

Samsung SDI ensures that all its verified smelters and refiners complete either the third-party audits performed by the RMI or other corresponding independent audits.

In 2021, 18 out of 23 verified smelters and refiners were RMI-Conformant as a result of RMI’s third-party audits, and four of them were included in the active list following their application for RMI’s third-party audit program.

Country of Origin of Cobalt Consumed by Samsung SDI

No	Country of Origin of Cobalt
1	Australia
2	Democratic Republic of Congo (DRC)
3	Madagascar
4	Russia

Samsung SDI’s List of Cobalt Smelters and Refiners

No	Cobalt Smelters & Refiners	Country
1	Dynatec Madagascar Company	Madagascar
2	Chemaf Etoile	DRC
3	Chemaf Usoke	DRC
4	Gangzhou Yi Hao Umicore Industry Co.	China
5	Ganzhou Tengyuan Cobalt New Material Co., Ltd.	China
6	Gem (Jiangsu) Cobalt Industry Co., Ltd.	China
7	Guangdong Jiana Energy Technology Co., Ltd.	China
8	Hunan Yacheng New Materials Co., Ltd.	China
9	Hunan CNGR New Energy Science & Technology Co., Ltd.	China
10	Jiangsu Xiongfeng Technology Co., Ltd.	China
11	Jiangxi Jiangwu Cobalt industrial Co., Ltd.	China
12	Jingmen GEM Co., Ltd.	China

No	Cobalt Smelters & Refiners	Country
13	JSC Kolskaya Mining and Metallurgical Company(Kola MMC)	Russia
14	Kamoto Copper Company	DRC
15	Lanzhou Jinchuan Advanced Materials Technology Co., Ltd.	China
16	New Era Group Zhejiang Zhongneng Cycle Technology Co., Ltd.	China
17	Quzhou Huayou Cobalt New Material Co., Ltd.	China
18	SungEel HiTech Co.,Ltd.	Korea
19	Tianjin Maolian Science & Technology Co., Ltd.	China
20	Umicore Finland Oy	Finland
21	Umicore Olen	Belgium
22	ZheJiang Huayou Cobalt Co.,LTD.	China
23	Zhuhai Kelixin Metal Materials Co., Ltd.	China

Joining global initiatives

Responsible Minerals Initiative

In 2020, we joined the RMI (Responsible Minerals Initiative) to make concerted efforts with the global community to improve mineral sourcing practices. As a member of the RMI, we step up our efforts to make improvements on supply chain due diligence.



‘Cobalt for Development’ Project

In 2019, we partnered with Samsung Electronics, BMW, and BASF in undertaking the Cobalt for Development Project for the betterment of working conditions and communities in the vicinity of cobalt mines in the Democratic Republic of the Congo.



Ban on Deep Seabed Mining Initiative

In March 2021, we became the first in the battery industry to call for moratoriums on deep seabed mining (DSB) in conjunction with BMW, Volvo and Google among others to protect the marine ecosystem.

SCM Risk Management

Managing conflict minerals and assuming extended responsibility for such minerals

Conflict minerals refer to Tantalum, Tungsten, Tin and Gold (3TG) that are mined in the Democratic Republic of the Congo and its adjacent countries. Samsung SDI established its own policy to prevent environmental pollution, human casualties, labor exploitation and human rights violation that often occur in these conflict areas and is excluding the use of conflict minerals from the raw material procurement phase. To this end, we are building a supply chain survey and management system, and demand that all our partners do business with RMI-conformant smelters and refiners. As a result of our 2021 survey, all smelters and refiners of 3TG minerals that are used for Samsung SDI products were fully conformant with the RMI certification standards.

As managing social and environmental risks is gaining heightened importance in the mineral mining and procurement process, this also raises the need for risk management on an extended scope of minerals. Samsung SDI is stepping up its efforts to establish traceability along the supply chain and improve risks on all major minerals consumed for its products.



Managing Supply Chain Procurement Risks

Managing purchasing risks

Supply chain risks include risks that may occur when partners purchase components to supply to Samsung SDI as well as environmental and social risks that arise at partners themselves.

Samsung SDI's purchasing risk management consists of four steps: the first step is taken by the Purchasing Team to select purchasing-related risks in line with the process requested by IATF 16949¹⁾ and finalize risks that may affect its operations at the discretion of the head of the Purchasing Team. These risks are then assessed based on the severity of impact on Samsung SDI and the probability of occurrence.

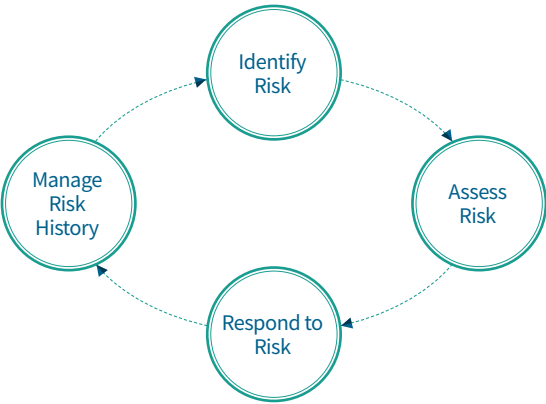
The severity of risk impact is assessed in five different levels depending on the size of expected damage from risks, those affected and restoration period among others. The probability of occurrence is also assessed in five different levels based on the frequency of occurrence during the set period of time and the availability of prevention measures. It is those risks that were assessed that inform our effort to develop short-, mid-, and long-term strategies and respond accordingly. Last but not least, Korea-Japan trade disputes, COVID-19, fluctuations in raw material prices and other risks that happened in the past are all transferred to our history database so that we could use such data in assessing and managing risks expected to occur in the future.

1) International quality management system standard for the automotive industry, jointly developed by the IATF (International Automotive Task Force) and the ISO (International Organization of Standardization)

Responding to purchasing risks in relation to COVID-19

In 2020 and 2021, COVID-19 continued to have immense impact on the global supply chain. In particular, another wave of COVID-19 that hit the Xi'an region of China in December 2021 triggered authorities to impose mobility restrictions. To respond to risks that could be caused by such restrictions, we helped partners who produce and supply raw materials to our Xi'an corporation to secure logistics routes and build sufficient inventories.

Managing Purchasing Risks



1. Infinite Safety

2. Move to Net-Zero

3. Partnership with Value-Chain Partners and Community

4. Accountability in Value-Chain

5. Credibility in Corporate Governance

6. Transparency in Stakeholder Engagement

Labor/Human Rights

Non-compliance with
human rights standards

ZERO

Our Approach and Management Plan

Samsung SDI respects human rights, freedom of association, and political/religious/personal freedom, and prohibits discrimination and harassment on the grounds of gender, race, religion, disability, place of origin, and sexual minority. We follow ILO (International Labor Organization) core conventions, the UN Universal Declaration of Human Rights, the UN Global Compact 10 Principles, the RBA (Responsible Business Alliance) Code of Conduct, and other global labor/human rights norms and guidelines, and stringently abide by local regulatory requirements, including labor laws in countries where we operate.

Respect for Human Rights

Protecting diversity and prohibiting discrimination

Samsung SDI is fully committed to respecting the diversity of employees and providing equal opportunity to all. We have adopted 'blind recruitment' which eliminates all identification details from candidates' applications, and give precedence to candidates of national merit and with disabilities to care for the socially underprivileged and ensure that discrimination does not occur on the grounds of educational level, gender, nationality, or religion among others in the hiring process. To further nurture our female workforce, we manage a range of diversity metrics, including the ratio of female managers, and monitor whether there are any disadvantages that are given in performance appraisal to employees who took parental leave.

We also recommend each team to engage both its leader and team members to discuss the topic of diversity at least on a semi-annual basis to minimize conflicts among different genders, nationalities and generations while maximizing synergy.

Preemptively managing labor/human rights risks

To prevent human rights risks from ever occurring at all levels, we identify major regions and worksites that are under vulnerable human rights/labor conditions and focus on their management to eliminate factors that may give rise to human rights violation. We verify these regions and worksites for their compliance with human rights standards either under the supervision of the Headquarters or self-checks made by worksites concerning child labor and compulsory labor, working hours, wages and benefits, humanitarian treatment, anti-discrimination/harassment, and freedom of association, and give notices and make necessary institutional improvements to respond to the amendments made to applicable laws.

For 15 overseas corporations, regular self-assessments are made each year to ensure compliance with local labor regulations for recruitment, working hours, and wage management to identify and manage risks and underscore the need for human rights and compliance management.

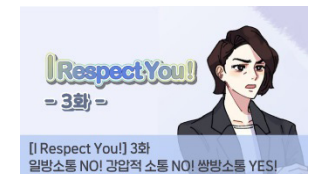
► Samsung SDI's Code of Conduct (https://www.samsungsdi.co.kr/upload/download/sustainable-management/Code_of_Conduct.pdf)

Raising human rights awareness at all levels

We receive whistleblowing reports on human rights issues through wide-ranging channels, from e-mails submitted anonymously or under one's real name to phone and department head/HR reports. When a report is submitted, this is addressed in full compliance with internal guidelines including those governing disciplinary actions.

To raise awareness on human rights protection and prevent any relevant non-compliance in so doing, we provide company-wide training on the prevention of sexual harassment and improvement in perceptions on disability as well as training on a culture of mutual respect in response to the enforcement of the Anti-Bullying Law. Our training curriculum is updated and new content is added to keep pace with the ever-changing internal/external conditions and social needs.

In addition, training materials on the topics of sexual harassment prevention and a culture of mutual respect, implementation guides for employees, and other basic-level human rights guideline materials are posted on the It Basic bulletin board of our in-house website to provide information on behavioral precautions and proper responses in preventing verbal violence and improving drinking practices on an on-going basis. In 2021, we launched a campaign to promote a culture of mutual respect and produced and uploaded related webtoons and videos to help employees raise their awareness on respect for human rights in a more engaging manner.



Webtoon for human rights training

Labor/Human Rights

Establishing sound labor relations

We fully protect labor’s three primary rights and comply with applicable laws and regulations. Pursuant to the Act on the Promotion of Workers’ Participation and Cooperation, we operate an employees’ representative body to make necessary institutional improvements and collect difficulties experienced by employees. In particular, we operate ‘Sisicol’ as an in-house online communication channel to collect improvement suggestions or grievances raised by employees in relation to their professional life. This provides the private comment functionality to keep inquiries confidential when necessary, and the submitted issues are addressed within 24 hours by relevant departments in principle. In 2021, a total of 1,245 inquiries were submitted and were addressed with responses and follow-up measures.



Providing a Great Work Place

Ensuring work-life balance

We strive to provide a work environment that enables employees to strike the right work-life balance and fully engage in their work. For instance, we have introduced flexible work arrangements such as selective work hours and reduced work hours to help employees manage their own work schedules.

We have also embraced remote work and eligible employees can choose to work up to four days a week at home.

At Samsung SDI, both men and women are given the opportunity to meet their childbirth/childcare needs. While legal parental leave is up to one year per child, we provide another full one year of parental leave. Furthermore, we have extended the age limit to 12 years while legally mandatory parental leave set the limit at eight to better support employees who take parental leave.

Maternity leave and other work-life balance support programs apply equally to all employees, including both contract employees and dispatched employees. As the Equal Employment Act took effect in 2021, we are making necessary institutional improvements by amending our internal support policies, including allowing employees to take parental leave during pregnancy.

Our work-life balance support programs also span physical spaces such as maternity protection rooms arranged for expectant or breast-feeding employees and in-house daycare centers operated across all worksites.

Improving the quality of life

Samsung SDI operates a wide array of welfare & benefits programs to raise the morale of employees and improve their quality of life. In 2021, we increased our contribution to employees’ personal pension plan to support their stable after-retirement life and granted extra welfare points to improve the welfare of employees.

In June 2021, we opened the Samsung SDI e-Library which is available both on online and mobile platforms to provide our employees with even broader leisure options to choose from and support their self-development. This essentially created an environment for employees to read at any given time and space, without disruptions to using offline spaces that were exacerbated amid COVID-19. Our e-library provides an extensive collection of novels, essays, and economic books among others and is positively welcomed by our employees.

Labor/Human Rights

Samsung SDI's Welfare & Benefits Programs



Housing loans and financial support for family events

- Operate a loan program for employees who have yet to purchase a home to support their housing purchase
- Provide financial support for employees' family events



Selective welfare & benefits program

- Grant welfare points that employees can redeem to use for their favored activities, be it health management, leisure or self-development



Leisure

- Provide discounts for the Caribbean Bay/amusement parks
- Provide memberships to condominiums and resorts nationwide



Educational expense support/in-house daycare centers

- Provide tuition support for employees' children
- Operate daycare centers at each worksite



Counseling Center

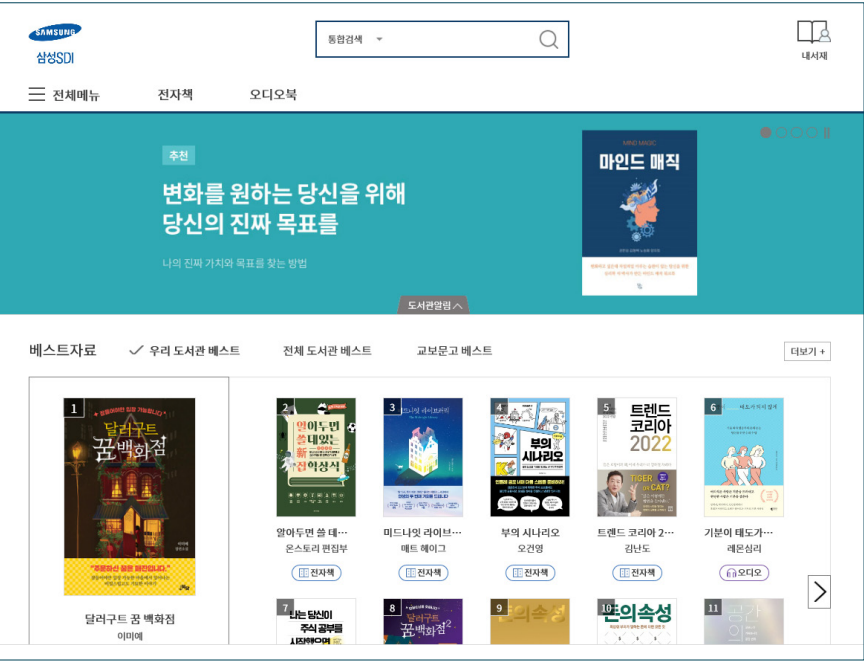
- Provide professional psychological counseling to help deal with issues in one's work life and persona life in general as well as personal grievances



Health management

- Support all employees to receive health check-ups
- Support to pay medical expenses for employees and their spouse for specific medical conditions, injuries or childbirth
- Establish rest areas for female employees and lactation rooms

Samsung SDI's e-Library



Employee Training

Nurturing job experts

We operate tailor-made offline/online training by analyzing expertise required in respective job categories, including development, technology, manufacturing, sales & marketing, and management support. Specifically, the STEP (SDI Technology Education Program) represents our distinctive technology education program designed to systemize technology training for development, process & equipment, and quality operations. In addition to common job training, we also operate department-level learning cells and in-house seminars to meet special department-specific training needs.

In addition to in-house training, we provide master/doctorate academic training and non-degree courses through industry-academia alignment to nurture experts in the development and technology sectors. Our master/doctorate degree courses (academic training) have tripled the number of students from the previous year to focus on nurturing top-notch experts in respective fields. Our license acquisition support program also encourages employees to obtain internationally/nationally-recognized qualifications in the areas of manufacturing, product quality, purchasing, finance, safety/environment, infrastructure in order to support on multiple fronts the development of job experts at all levels.

Operating the Technology Training Center

We assist equipment/process technical staff in systematically developing their common competences and technical expertise and in preemptively learning necessary technical skills and continuously developing into technical experts, contributing to improving product quality and productivity in so doing. Tailor-made level-specific technical training is

provided from introductory to practical levels, and training equipment, made of core components and modules that are deployed in real-life conditions, is used to provide one-person one-kit training to effectively operate a training curriculum that spans from theoretical understanding to hands-on practice. In addition, best practices are identified to address equipment errors that occur in the field and are disseminated across the board.

To nurture technology experts, we operate the ‘component technology expert course’ to address issues through self-initiated learning on core equipment components, and the ‘process & equipment expert course’ to resolve equipment-related challenges and chronic process quality issues in order to assist our employees in developing unsurpassed expertise in their field. Our Technology Training Center will independently produce online video content to provide a virtual learning platform and continue to introduce new training courses required to build next-generation technology competitiveness.

Retiree Support System and Program

Our Career Consulting Center (CCC) has been up and running since 2007 to fully support our employees in leading a successful after-retirement life. The Center provides outplacement services to help our employees to prepare for their life after retirement, and such services consist of individual assessments, life/career design, outplacement training, career consulting and job matching support.

Our outplacement services enable employees to identify their own occupational values, vocational aptitudes, competences and other resources with the help of standardized assessment/analysis tools. We use the insights gained as such to support them with practical training

required to pursue new career paths across diverse areas, including business, startup, farming, and higher education. Employees are also provided with career consulting to set their individual outplacement goals and to develop and implement strategies to reach these goals through counseling and mentoring as well as ‘job matching’ service that connects applicants with high-quality positions through the far-reaching network owned by the Center. In so doing, the Center ensures continuity in serving the need of potential retirees.

Our Career Consulting Center informs employees of outplacement services available for those nearing their retirement through its online bulletin board and handouts as specified in the Elderly Employment Act. Gaining knowledge on outplacement services in advance, eligible employees are able to receive more detailed guidance through counseling when necessary and use such services as they wish.

Outplacement Support Services

Life/career design
Perform highly reliable analyses on occupational values, preferences, and job competences to use the results for training and consulting

Career consulting
Provide counseling, coaching and mentoring to help set and attain individual outplacement goals

Outplacement support training
Explore diverse career alternatives, including moving to another company or starting one's own business, depending on individual assessment outcomes, competences, and preferences

Job matching
Match applicants' needs with businesses and educational institutions in need of talent in a customized manner

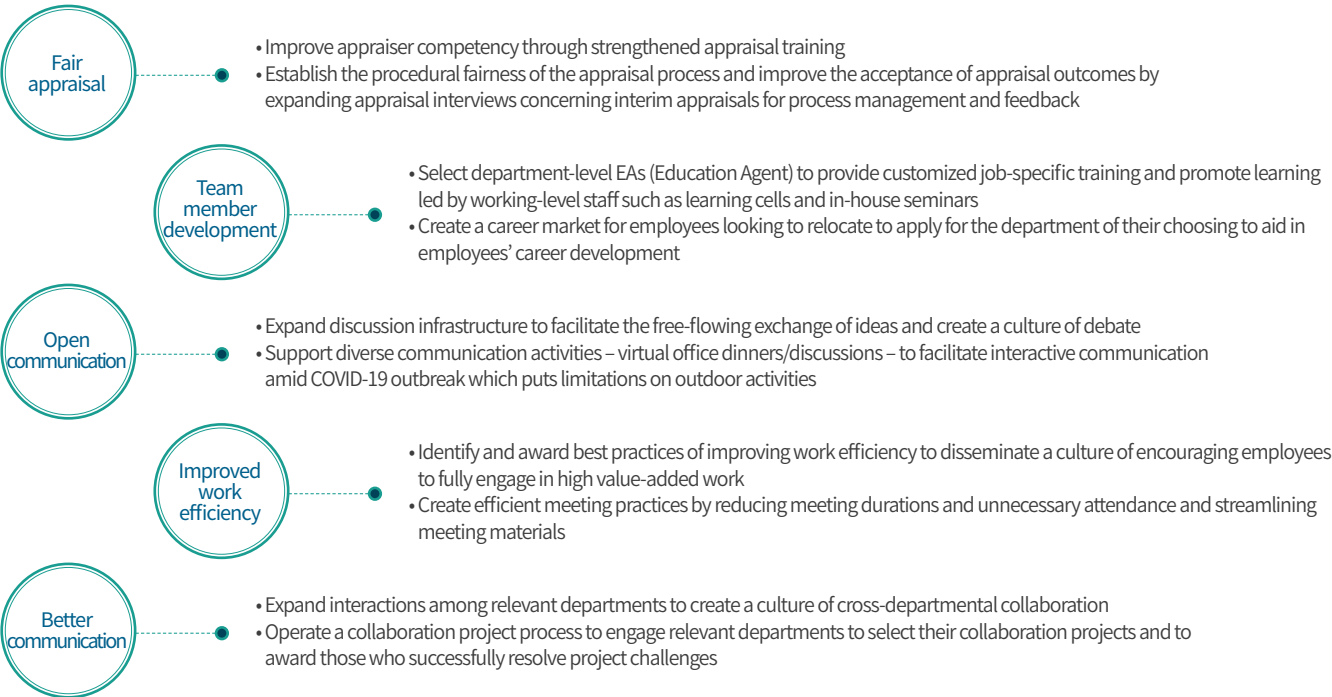
Organizational Culture

Creating an Advanced Organizational Culture

Building a top-tier organizational culture

Samsung SDI aims to create an organizational culture that aligns all our employees towards a shared future through communication and collaboration. To this end, corporate culture leaders are appointed at the department level each year to serve as Change Agents (CA) to play a leading role in improving and innovating our organizational culture. In 2021, a total of 299 CAs were appointed: these CAs are working to build a top-tier organizational culture under the five goals of fair appraisal, team member development, open communication, improved work efficiency, and better collaboration.

5 Organizational Culture Goals and Activities to Create a Top-tier Organizational Culture



Change Agents operating across the company

299 employees

Communication with management

To boost internal communication that has been disrupted amid COVID-19, we have engaged in regular discussions and live broadcasts to support communication between top management and employees. Such communication activities serve to share our corporate policies and vision and address the grievances or questions raised by employees. Notably, the CEO communication meeting held in December 2021 following the appointment of our new CEO provided us with an opportunity to underscore the importance of recruiting and nurturing talented individuals to attain our corporate goal and an innovative corporate culture driven by communication and collaboration. 'Leaders Channel', a monthly meeting of department heads, also serves to share information on our corporate affairs and institutional operation, and department heads directly communicate what was discussed to their team members.



CEO communication meeting held in Q1 2022



The impact of unsound governance may extend beyond a company’s financial performance to its non-financial performance. As such, financial authorities across the world are mandating the disclosure of governance reports to help create transparent corporate governance. Pension funds and other institutional investors also demand that management and the board of directors proactively perform their role in ESG management and oversight as a prerequisite for establishing sustainability management.

Samsung SDI has separated the CEO and Board Chair roles and created the Sustainability Management Committee under the Board to reinforce the independence of its Board of Directors and extend the role assumed by the Board for sustainability management. We also establish a compliance framework and provide relevant training to integrate ethics and compliance into the fabric of our corporate culture.

KPI

Area	Achievement	Unit	2019	2020	2021
Advanced BOD	Ratio of independent directors	%	57.1	57.1	57.1
	Average attendance in BOD meetings	%	93.9	93.5	93.7
Ethics & Compliance	Employees who completed ethics & compliance training	No. of persons	9,697	12,063	12,598
	Disciplinary actions taken for corruption identified through audits	No. of persons	9	12	0
	Partners whose contract was terminated in relation to corruption	No. of companies	0	0	0
	Compliance review activities	No. of cases	17	22	26

※ Scope of the Index: Korea

Advanced BOD

Our Approach and Management Plan

The Board of Directors (BOD) is mandated to deliberate and decide on the matters stipulated by applicable regulations and the Articles of Incorporation, the matters delegated by the general shareholder meeting, and major issues related to the Company's basic management policy and business execution.

Members of the BOD¹⁾

Executive Director

	Name	Young Hyun Jun	Gender	Male
	First appointment	Mar. 24, 2017	Expertise	Overall management
	Career	Chair of the BOD		
	Role within the BOD	Chair of the BOD Member of the Management Committee and the Independent Director Candidates Recommendation Committee		
	Name	Yoonho Choi	Gender	Male
	First appointment	Mar. 17, 2022	Expertise	General management
	Career	CEO and President, Samsung SDI		
	Role within the BOD	Chair of the Management Committee Member of the Independent Director Candidates Recommendation Committee		
	Name	Jong Sung Kim	Gender	Male
	First appointment	Mar. 17, 2021	Expertise	Overall management
	Career	Executive Vice President, Business Management Office, Samsung SDI		
	Role within the BOD	Head of the Sustainability Management Office Member of the Management Committee, the Independent Director Candidates Recommendation Committee, and the Compensation Committee		

1) Board members as of Mar. 17, 2022

* New appointment: Yoon Ho Choi was appointed as an executive director at the 52nd General Shareholder Meeting held on Mar. 17, 2022





* Directors assuming multiple positions: Jong Sung Kim, an executive director, serves as a non-executive director at Samsung Display, Oh Kyong Kwon, an independent director, serves as an independent director at the Yumin Cultural Foundation, and Won Wook Choi, an independent director, serves as an independent director at LIG Nex1.

* Average BOD tenure: 2.3 years as of Jun. 30, 2022

▶ Samsung SDI Corporate Governance Report (<https://www.samsungsdi.co.kr/ir/disclosure.html>)

To improve the accountability of directors and the flexibility of BOD operations, the Chair of the BOD is appointed among directors – both executive and independent directors - through the decision made by the BOD.

Independent Director

	Name	Oh Kyong Kwon	Gender	Male
	First appointment	Mar. 18, 2020	Expertise	Electrical and electronics industry
	Career	Professor of Electronic Engineering, Hanyang University		
	Role within the BOD	Chair of the Related Party Transactions Committee Member of the Audit Committee, the Independent Director Candidates Recommendation Committee, the Compensation Committee, and the Sustainability Management Committee		
	Name	Duk Hyun Kim	Gender	Female
	First appointment	Mar. 18, 2020	Expertise	Law and human rights
	Career	Attorney, Jin-Sung (law firm)		
	Role within the BOD	Chair of the Sustainability Management Committee Member of the Audit Committee, the Related Party Transactions Committee, the Independent Director Candidates Recommendation Committee, and the Independent Director Candidates Recommendation Committee		
	Name	Tae Ju Park	Gender	Male
	First appointment	Mar. 18, 2020	Expertise	Labor policy and labor relations
	Career	Senior researcher, Korea University Institute for Research on Labor and Employments		
	Role within the BOD	Chair of the Compensation Committee Member of the Audit Committee, the Related Party Transactions Committee, the Independent Director Candidates Recommendation Committee, and the Sustainability Management Committee		
	Name	Won Wook Choi	Gender	Male
	First appointment	Mar. 18, 2020	Expertise	Accounting and tax
	Career	Professor at School of Business, Yonsei University		
	Role within the BOD	Chair of the Audit Committee Member of the Related Party Transactions Committee, the Independent Director Candidates Recommendation Committee, and the Sustainability Management Committee		

Advanced BOD



Appointment of the BOD

Establishing the independence and transparency of the BOD

We have established a director appointment process to ensure the independence of the Board of Directors (BOD). The BOD and the Independent Director Candidates Recommendation Committee select qualified director candidates following their review on these candidates for any potential disqualifications as set forth in applicable regulations (Clause 3, Article 382 and Clause 8, Article 542 of the Commercial Act), who are then appointed through the approval granted at the general shareholder meeting. Independent directors constitute a majority of the BOD (four independent directors). To prevent any possible conflict of interest and ensure that the BOD remains independent of senior management and controlling shareholders, our directors are limited in entering into transactions with the Company in conformity with Article 398 of the Commercial Act. Furthermore, Article 10 of the Regulations for the Operation of the BOD stipulates that directors who have special interest in specific agenda items can't exercise their voting rights.

Improving the diversity of the BOD

As we are keenly aware of the importance of a diverse Board of Directors, we do not pose any limitations in appointing directors on the grounds of gender, race, religion, ethnicity, nationality or cultural backgrounds, and this is specified in our sustainability reports and corporate governance reports. We will continue with our efforts to improve the diversity of our BOD to support its objective and effective decision-making and oversight.

Reinforcing the expertise of the BOD

To enable professional deliberations on the agenda items proposed to the BOD and its subcommittees, our independent directors are appointed for their extensive knowledge and experience in business administration, economy and the electronics and battery industries in general as well as their qualifications set forth in applicable regulations or the Articles of Incorporation.

We provide independent directors with information on agenda items prior to BOD and subcommittee meetings so that they can sufficiently review such information and faithfully fulfill their management and oversight roles in so doing. To assist independent directors in better understanding our business, we regularly share our quarterly business status and outlook, and provide training at their request or when the need arises. In 2021, all independent directors received training to take stock of BOD operations and our business activities.

Training Provided to Independent Directors

Date of Training	Training Topic
May 20, 2021	<ul style="list-style-type: none">• Introduction to Samsung SDI's Cheonan worksite• Health and safety plans• Understanding ESG management• Tour around our small-sized Li-ion/automotive & ESS battery production lines
Dec. 29, 2021	<ul style="list-style-type: none">• Samsung's CSR implementation plan

Operation of the BOD

BOD meetings are categorized into regular meetings and ad-hoc meetings hosted when the need arises. BOD agenda items are decided by a majority of the directors present and voting for, given the quorum is reached (a majority of the total number of directors). In 2021, seven regular meetings and two ad-hoc meetings were held to deliberate and decide on a total of 36 agenda items. In particular, the introduction of an electronic voting system was discussed through regular meetings.

Attendance in BOD Meetings Held in 2021 (%)

Meeting	Executive Director	Independent Director	Total
1 st regular meeting	33.3	100	71.4
2 nd regular meeting	33.3	100	71.4
3 rd regular meeting	100	100	100
4 th regular meeting	100	100	100
5 th regular meeting	100	100	100
6 th regular meeting	100	100	100
1 st ad-hoc meeting	100	100	100
7 th regular meeting	100	100	100
2 nd ad-hoc meeting	100	100	100
Average attendance	85.2	100	93.7

Advanced BOD

BOD subcommittees

For the efficient operation of the BOD, we have six subcommittees established under the BOD that are segmented into their own expertise areas and delegated by the BOD to fulfill a portion of its functions. The Audit Committee, the Related Party Transactions Committee, and the Sustainability Management Committee are exclusively composed of independent directors, and a majority of the Independent Director Candidates Recommendation Committee and the Compensation Committee consist of independent directors.

BOD Subcommittees

(as of Jan. 2022)

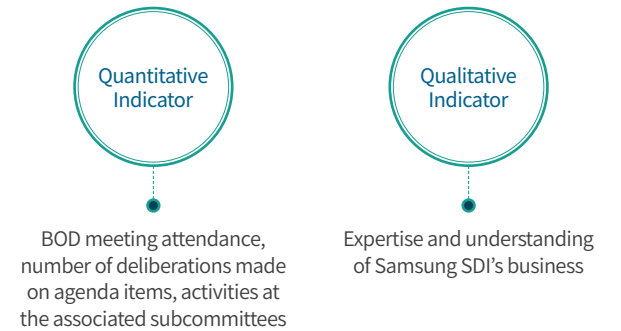
Committee	Composition	Role
Management Committee	3 executive directors	<ul style="list-style-type: none">Perform work in accordance with the Articles of Incorporation and BOD regulations and decisionsDeliberate and decide on matters delegated by the BOD
Audit Committee	4 independent directors	<ul style="list-style-type: none">Conduct accounting and work audits
Related Party Transactions Committee	4 independent directors	<ul style="list-style-type: none">Ensure transparency in related party transactions and compliance with fair trade regulations
Independent Director Candidates Recommendation Committee	3 executive directors and 4 independent directors	<ul style="list-style-type: none">Nominate independent director candidates
Compensation Committee	1 executive director and 2 independent directors	<ul style="list-style-type: none">Deliberate on the remuneration limits imposed on registered directorsDeliberate on other matters delegated by the BOD
Sustainability Management Committee	4 independent directors	<ul style="list-style-type: none">Deliberate and decide on strategies, policies and major activities related to sustainability managementDeliberate on shareholder return policies in advance

BOD Performance Appraisal and Remuneration

Independent director performance appraisal

Our independent directors receive regular performance appraisals each year for their activity. Such appraisals are conducted fairly in accordance with the set internal criteria which include both quantitative and qualitative indicators, and appraisal results are reflected in deciding their reappointment.

Independent Director Performance Appraisal System



BOD remuneration

The Compensation Committee deliberates on the appropriateness of limits on director remuneration, and the limit is determined at the general shareholder meeting pursuant to Article 388 of the Commercial Act. Remuneration for respective directors is paid within the approved boundary in consideration of the work assumed and the outcome of fulfilling their given mandates. Remuneration for executive directors consists of position-specific base salary and performance-based bonus.

Performance-based bonus is calculated in consideration of financial performance indicators (sales, net income, and stock prices) and non-quantitative indicators related to environmental and social performance (safety, labor relations, insolvency, corruption, security, and compliance). Remuneration for independent directors consists of base pay, welfare benefits, and diverse expenses paid to perform their work as independent directors. While remuneration for independent directors is not aligned with their performance appraisal results to ensure the independence of their decision-making, full consideration is given to the level of compensation paid by industry peers as well as risk, responsibility and time involved in performing their work to provide reasonable compensation.

Breakdown of BOD Remuneration in 2021¹⁾

Category	Unit	2021
Net payments made	KRW million	6,285
Total remuneration for executive directors	KRW million	5,926
Total remuneration for independent directors	KRW million	359
Average remuneration per executive director	KRW million	1,916
Average remuneration per independent director	KRW million	90

1) Four independent directors are members of the Audit Committee, and the above data on the number of directors and their total remuneration include those independent directors and members of the Audit Committee who resigned during the fiscal year of 2021.

Ethics & Compliance

Our Approach and Management Plan

Samsung SDI operates a systemic compliance program in line with Samsung’s management principle that values regulatory and ethical compliance. Our compliance program spans a wide range of areas, including cartel, related party transactions, subcontracting, trade secrets, and anti-corruption. Following the process of ‘risk monitoring and prevention – training and review – improvement and follow-up management’, we aim to preemptively respond to the rapidly-shifting business landscape to prevent and minimize the risk of regulatory non-compliance.

Compliance Program Operational Process



Ethical and compliance management system

Dedicated compliance organization

The Compliance Team under the direct leadership of the CEO serves as our dedicated compliance organization. The Compliance Team is headed by the Compliance Officer appointed by the BOD as stipulated in the Commercial Act. Compliance implementation units were created at the department level, and compliance chief managers in department head positions were appointed to support the establishment and dissemination of a compliance culture. The compliance chief officers assume ownership for compliance management within their own department and encourage

members to abide by compliance systems and guidelines and participate in compliance trainings, reviews and other relevant activities. In 2022, a new working-level Team Compliance Manager (TCM) program will be operated to expand self-initiated, field-driven compliance management.

Compliance Control Regulations

We operate the Compliance Control Regulations to promote fair and transparent business practices in conformity with the Commercial Act and to ensure the wholesome growth of Samsung SDI and earn trust from customers. These Regulations govern the operation of the compliance control system, authorities and obligations of the Compliance Officer, and employees’ compliance obligations and compliance control activities.

Compliance system operation

We operate a compliance system to enable employees to easily obtain compliance-related information and raise their own compliance awareness in so doing. Our employees may use this system to refer to our compliance regulations and guidelines including the Compliance Control Regulations and access latest domestic and international media articles related to compliance issues. The system makes it easy for employees to register work-related inquiries and whistleblowing reports and receive necessary assistance. In 2021, all guidelines managed by the Compliance Team were amended to elevate employees’ understanding of compliance and its application to their day-to-day work. To properly operate the technical data request system, we conducted relevant trainings and reviews to alert employees to the risk of regulatory non-compliance in relation to technical data.

Samsung Compliance Committee

Purpose and membership

The Samsung Compliance Committee (the ‘Committee’ hereinafter) was launched on February 5, 2020 to bolster compliance oversight and control at Samsung’s seven major affiliates ¹⁾.

The Committee is guaranteed its independence and autonomy as an independent organization created outside of Samsung SDI. The Committee consists of six outside members including its chair and one internal member, and outside members were appointed for their expert knowledge and experience in such compliance oversight areas as law, accounting, economy, and administration.

1) Samsung SDI, Samsung Electronics, Samsung Electro-Mechanics, Samsung SDS, Samsung C&T, Samsung Life Insurance, Samsung Fire & Marine Insurance

Major activities

The Committee meets with compliance officers from participating affiliates each month, and convenes ad-hoc meetings when necessary. The Committee is notified of agenda items concerning external sponsorships and related party transactions made by affiliates to present its review opinions, and receives reports on obligatory non-compliance on the part of affiliates through separate whistleblowing channels (post, e-mail, and third-parties). Operating its own website, the Committee discloses the details of meetings held and its official statements. The Committee hosts discussion meetings with senior management from affiliates, provides compliance training to high-level executives from these affiliates, and invites compliance experts for debates among others. Samsung SDI will engage in the Committee’s systems and activities to establish its own advanced compliance oversight system and programs.

1. Infinite Safety	2. Move to Net-Zero	3. Partnership with Value-Chain Partners and Community	4. Accountability in Value-Chain	5. Credibility in Corporate Governance	6. Transparency in Stakeholder Engagement
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Ethics & Compliance

Ethics and Compliance Management Activities

Compliance framework

Samsung SDI operates a range of compliance programs to prevent the risk of regulatory non-compliance that may occur in the course of business conduct. We implement a 24/7 system to report contacts made with industry peers to prevent cartel from occurring, and evaluate our executives under the compliance index program to motivate them to improve their own compliance competence and advance our compliance control system. In 2022, our priority will be to fully support overseas corporations to establish their compliance framework and bolster their activities.

Review and monitoring

We conduct compliance reviews and monitoring to prevent the risk of regulatory non-compliance. Each year, departments at high risk of regulatory non-compliance are periodically reviewed for their compliance with applicable laws, regulations and contractual obligations, and review outcomes are used in conducting future trainings and reviews. Non-routine reviews are also made on risks that warrant preemptive prevention in consideration of internal/external legal issues that concern trade secrets and Fair Transactions in Subcontracting Act / Act on The Promotion of Mutually Beneficial Cooperation Between Large Enterprises and Small and Medium Enterprises. For areas where risk management is required as part of daily work routines, compliance reviews and consensus-building are made a mandatory component of the working-level decision-making process to prevent regulatory non-compliance from ever occurring.

Respective compliance implementation units, under the leadership of compliance chief managers, perform theme-specific self-reviews to take self-initiated corrective measures for risks identified, and best practices are rewarded.

Counseling and whistleblowing channels

Our compliance whistleblowing mechanism enables us to recognize and prevent regulatory non-compliance and risk factors associated with Samsung SDI. Whistleblowing reports can be submitted through wide-ranging internal/external channels, including our compliance system, our corporate website, e-mail, phone, and fax, and all such reports are handled in a confidential manner to protect the anonymity of whistleblowers. In 2022, we plan to reorganize our website and compliance system to make our whistleblowing mechanism more accessible.

Bolstering Ethics and Compliance Capabilities

Ethics and compliance management training

We operate a range of training programs to effectively implement compliance management and prevent the risk of regulatory non-compliance. Online compliance training is provided to all employees, and trendy broadcast concepts are employed in developing content to make our training more engaging and maximize learning outcomes. In addition, compliance chief managers receive training to encourage department-level self-directed activities and bolster their compliance leadership.

In providing special training on related party transactions, cartel, and trade secrets, we reflected regulatory trends, internal/external violation cases, and guidelines associated with major risks. We also provide compliance training to employees at key partners to help them strengthen their compliance management capabilities.

Expanding communication on ethics and compliance

Samsung SDI's CEO regularly states the Company's commitment to compliance both internally and externally, and executives also communicate compliance-related messages to their department members to raise compliance awareness at all levels. Compliance chief managers at respective departments encourage their members to abide by compliance systems and guidelines and attend compliance training to fully engage employees in compliance activities. The Compliance Team regularly provides employees with compliance information to help them review the risk of regulatory non-compliance by themselves. Besides, quarterly 'SDI Compliance Letters' are sent to independent directors to share reports made by major media outlets on compliance issues and regulatory enactments and amendments. In 2021, we produced and distributed card news promoting the Compliance Team and outlining major guidelines. An idea suggestion event is also held to collect diverse compliance-related ideas from employees and reflect actionable ones into our business operations.

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Ethics & Compliance

Information Security

Samsung SDI has established an information security system governing its organization, facilities, and technology to safeguard its critical assets and key information.

As our technology portfolio includes automotive battery technology that is considered as national core technology, we are operating an industrial technology leakage prevention and management system to abide by the Act on Prevention of Divulgence and Protection of Industrial Technology. We also engage in regular reviews and improvements to minimize the risk of information security.

Information security policy

Our information security policy consists of basic principles and their implementation guidelines for the Company and employees to follow to bolster our competitive edge. We also operate a separate index to measure our security performance in the field. The scope of this policy extends to tangible/intangible information assets owned, held or generated by the Company, and the policy applies all outsiders who visit Samsung SDI including contract-based partner employees as well as our own employees.

We keep our information security policy up-to-date each year in reflection of applicable laws in Korea and overseas and security measures associated with new information technology and new security threats, and the amendments made are posted on our in-house online bulletin board.

Information security management organization

We appoint the Chief Information Security Officer (CISO) in accordance with the Act on Promotion of Information and Communications Network Utilization and Information Protection to be responsible for the security of our information communications system and the protection of our critical information assets. Our critical information assets that fall into the category of national core technology are subject to even more rigorous management by appointing the National Core Industrial Technology Security Officer.

Our information security organization at the Headquarters, in conjunction with the information security managers appointed at domestic and overseas worksites, operates the Information Security Working Group to handle all matters related to the Company's information security through close coordination.

Information security management system

We operate digital CCTVs and an access control management system to protect our employees and facilities across all our worksites and prevent unauthorized third-party access. All our worksites are made accessible only to authorized employees, and visitors are required to make access requests prior to their visit to gain permission for entry in accordance with our Visiting Arrangement System. In tandem with this, our 24/7 exit inspection system ensures that our corporate assets and critical information are not taken out of our worksites without authorization. All processes related to worksite access are contracted out to outsourcing partners. Wide-ranging IT systems are under operation to block external intrusion and detect such threats early on, to

block unauthorized outgoing transmission, and to make data accessible only through company PCs through encryption to safeguard our critical information assets.

Information security training

To elevate employees' awareness on information security, we provide all employees with information security training each year and make them sign the information security pledge. In response to the increasing number of attempts to steal critical information through the use of malicious codes, we are conducting monthly simulation-based malicious code e-mail tests to keep our employees vigilant against such threats. We also leverage wide-ranging channels, including in-house broadcasts and campaigns, to raise employees' interest in information security. Professional training is conducted each year for information security personnel to bolster our information security capabilities and respond to the increasingly sophisticated security threats. Our 'security report reward program' encourages employees to stay alert and submit reports on security breaches to prevent security-related incidents.



Ethics & Compliance

Data Privacy

We abide by the Personal Information Protection Act to ensure that personal data of our employees, customers and visitors is not lost, stolen, leaked, falsified, fabricated or damaged. To keep personal data secure, we take technical and managerial protection measures as well as safety measures as notified by the Personal Information Protection Commission.

Data privacy policy

Samsung SDI has established the personal data processing guidelines which governs the items of personal data collected, the purpose of data processing, the duration of use, and safeguards among others for employees, customers and visitors. Pursuant to Article 29 (Duty of Safeguards) of the Personal information Protection Act, we have also developed the internal management plan to protect and manage personal data. . In addition, ‘image data processing device operation and management guidelines’ contain provisions on matters related to the Company’s image data processing devices and image data. The ‘Personal Information Protection Working Group’ reviews regulatory amendments on data privacy and changes in personal data processing and reflects them in our data privacy policy.

Data privacy management organization

Samsung SDI appointed the lead of the Smart IT Team as the Chief Privacy Officer (CPO) to manage systems containing personal data in a professional manner. We also created the ‘Personal Information Protection Working Group’ which consists of the Legal & IP Team, the Data Security Group, and the Compliance Team to play a leading role in data privacy.

In addition, review is underway to establish and operate the ‘Privacy Office’ under the Legal & IP Team in the second half of 2022 as a new dedicated data privacy management organization with strengthened legal expertise.

Data privacy management system

Our Chief Privacy Officer performs monthly reviews on the account of employees handling personal data, the time and location of access, the subject of data handled, and the details of tasks done to manage the work performed by these employees. When employees handling personal data download personal data, this is thoroughly verified, including justifications for such downloads. Furthermore, the implementation of our internal management plan governing access rights management, access log storage and review, and encryption measures is subject to annual reviews.

The Personal Information Protection Working Group checks any change in the items of personal data collected by the Company and the entities to which such personal data is provided. Such changes are reflected each year in gaining consent to collect and use personal data. As to customers’ personal data, we operate a process to verify consent given on the collection and use of personal data prior to registering the personal data of our customers to prevent any unauthorized collection of data without prior consent.

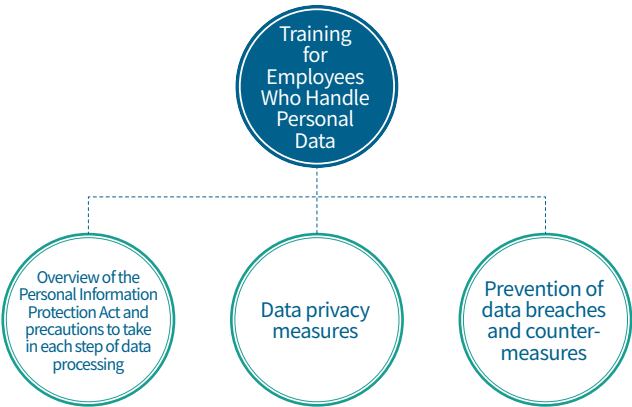
For visitors, our Visiting Arrangement System applies a prior consent process for those who make visit applications to abide by the Personal Information Protection Act.

Data privacy training

Our Chief Privacy Officer provides training at least once a year to those who handle personal data at Samsung SDI as well as employees who handle personal data at partners who have signed outsourcing contracts with us to process personal data.

Training topics are chosen each year in consideration of relevant conditions, and 388 individuals (291 Samsung SDI employees who handle personal data and 97 employees from outsourcing companies) received such training in 2021.

Data Privacy Training Content in 2021





Advancing sustainability management requires communication with wide-ranging stakeholders as well as shareholders.








Communication is critical as it is the enabler for Samsung SDI to deliver even greater value to stakeholders and to collect stakeholder feedback to take a second look at where we are in our sustainability journey.

We define customers, partners, governments, industry associations/universities/ research institutes, communities & civic organizations, employees and shareholders & investors as our major stakeholder groups, and approach to each of these groups in a customized manner. We are also active on a range of social network channels, including our official blog, YouTube, and Facebook, to communicate our business activities, which may sound technical and dry due to the inherent characteristics of the industry, in a more engaging and easy-to-understand manner for stakeholders.

Transparent Disclosure and Proactive Communication

Our Approach and Management Plan

We operate communication channels that reflect the characteristics of each stakeholder group to collect and reflect their varying opinions to strengthen our communication and collaboration with internal/external stakeholders.

Stakeholder	Communications in 2021					Ways to Increase Value	
 Customers	• Customer visits • QBR(Quarterly Business Review) meetings		• QTR(Quarterly Technical Review) meetings • Website			• Bolster our product safety and quality management system from the viewpoint of customers • Swiftly provide information across wide-ranging communication channels	
 Partners	• Operation of the purchasing portal system • SSP(Samsung SDI Partner's Association)		• Exchange meetings with partners • CEO and executives' visits to partners			• Establish the principles of fair trade • Operate the benefit sharing system	• Introduce win-win consulting • Provide technology, personnel and funding support
 Governments	• Participation in government-led projects • Operation of joint cooperation programs					• Participate in governmental policies and abide by laws • Faithfully pay taxes • Transparently disclose information	
 Industry associations /universities /research institutes	• Memberships at associations and societies (Korea Battery Industry Association, etc.)		• R&D (open innovation) • Operation of joint cooperation programs			• Support R&D • Expand industry-academia cooperation	
 Communities & civic organizations	• Operation of community councils • CSR activities		• Sisterhood ties			• Engage employees in CSR programs • Operate CSR programs in the areas of environment and education	
 Employees	• Operation of the Works Council • Operation of the Counseling Center	• Management briefings • Satisfaction surveys	• Change Agent • SDI Talk	• Global SDI Pick! • Newsletters		• Implement workplace safety management activities • Create an advanced corporate culture	• Support employees with capacity building • Operate welfare & benefits programs
 Shareholders & investors	• IR earnings conference calls • IR roadshows • IR website and company phone number		• General shareholder meetings • IR conferences and year-round meetings • Disclosures			• Establish sound governance • Disclose information on management status through general shareholder meetings and others	

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Transparent Disclosure and Proactive Communication

Key Communication Channels

A wide array of communication channels is made available 24/7 to promptly communicate the news and intriguing stories that Samsung SDI has to offer and continuously identify and reflect stakeholder needs. In addition to content that manifests Samsung SDI's unique characteristics, these channels also serve to share overall industry trends that may interest stakeholders and information highly useful in their daily lives.

Official blog

This channel serves to efficiently deliver practical information across different subcategories. Along with stories about Samsung SDI, its products and employees, information that meets practical daily needs is provided for wide-ranging stakeholders.



Official Facebook page

This provides an overview of the different channels used by Samsung SDI to communicate with stakeholders. This channel is distinguished for its timely delivery of corporate information including our business and latest news.



Official YouTube channel

This highly interactive channel serves to communicate our business activities and product features in a more easy-to-understand and intriguing manner. Through the voice of our own employees, viewers are given a chance to indirectly experience our Company and the work performed by employees, allowing us to reach out even closer to Millennial and Generation Z job seekers and employees.



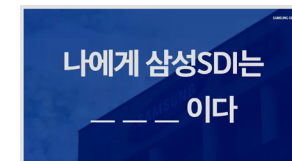
SDI Jungbotong



Tech-lesson



Battery Lab



Job Description



SDI Wiki



Wow! SDI!