

BASIC ISSUE


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Governance

2019 Achievements

BOD Attendance of Directors (Average)

93.9 %

All independent directors newly appointed (as of 2020)

BOD Composition

Samsung SDI's Board of Directors (BOD) consists of three executive directors and four independent directors as of March 31, 2020. The BOD is mandated to deliberate and decide on the matters stipulated by applicable regulations and the Articles of Incorporation, the matters delegated by general shareholder meetings, and major issues related to the Company's basic management policy and business execution. To improve the accountability of directors and the flexibility of BOD operations, the Chair of the BOD is appointed among directors through the decision made by the BOD, and independent directors can be nominated as candidates for the chairmanship.

	Executive Director		Independent Director	
	Name	Gender	Name	Gender
	Young Hyun Jun	Male	Young No Kwon	Male
First appointment	Mar. 24, 2017 (reappointment on Mar. 24, 2020)	Expertise	Mar. 23, 2018	Management in general
Career	Current CEO and President of Samsung SDI	Expertise	Current Executive Vice President, Business Management Office, Samsung SDI	
Role within the BOD	Chair of the BOD, and the Management Committee/member of the Independent Director Candidates Recommendation Committee	Expertise	Member of the Management Committee, the Independent Director Candidates Recommendation Committee, and the Compensation Committee	
	Tae Hyuk Ahn	Male	Oh Kyung Kwon	Male
First appointment	Mar. 20, 2019	Expertise	Mar. 18, 2020	Electrical and electronics industry
Career	Current Executive Vice President, Automotive & ESS Business, Samsung SDI	Expertise	Current Professor of Electronic Engineering at Hanyang University	
Role within the BOD	Member of the Management Committee and the Independent Director Candidates Recommendation Committee	Expertise	Member of the Audit Committee/chair of the Related Party Transactions Committee/member of the Independent Director Candidates Recommendation Committee, and the Compensation Committee	
	Duk Hyun Kim	Female	Tae Ju Park	Male
First appointment	Mar. 18, 2020	Expertise	Mar. 18, 2020	Labor policies and labor relations
Career	Current Attorney of the law firm Jin-Sung	Expertise	Current senior researcher, Korea University Institute for Research on Labor and Employments	
Role within the BOD	Member of the Audit Committee, the Related Party Transactions Committee, and the Independent Director Candidates Recommendation Committee	Expertise	Member of the Audit Committee, the Related Party Transactions Committee, the Independent Director Candidates Recommendation Committee, and the Compensation Committee	
	Won Wook Choi	Male		
First appointment	Mar. 18, 2020	Expertise		
Career	Current Professor at School of Business, Yonsei University	Expertise		
Role within the BOD	Chair of the Audit Committee/member of the Related Party Transactions Committee, and the Independent Director Candidates Recommendation Committee	Expertise		

* Independent directors are not allowed to hold more than two positions outside the Company, and those who are major shareholders of the Company or have special interest in the Company are limited in their appointment as an independent director.

Appointment of Directors

Independence of Directors
At Samsung SDI, director candidates are nominated by the BOD and the Independent Director Candidates Recommendation Committee and appointed through the approval granted at the general shareholder meeting. The BOD and the Independent Director Candidates Recommendation Committee review director candidates for any potential disqualifications as set forth in applicable regulations, including the commercial law (Clause 3, Article 382 and Clause 8, Article 542 of the Commercial Act) in order to ensure the independence of directors. There has been no case of independent directors appointed in spite of their disqualifications as defined in independence-related criteria. Furthermore, independent directors make up the majority of the BOD (four independent directors) to ensure that the BOD can function properly independent of senior management and controlling shareholders.

Diversity of Directors
Samsung SDI does not place any limitations in appointing directors on the grounds of gender, race, religion, ethnicity, nationality, or cultural background in order to ensure the diversity of directors.

Meeting	Executive Director	Independent Director	Total
1 st regular meeting	66.7	100	85.7
2 nd regular meeting	66.7	100	85.7
3 rd regular meeting	100	100	100
4 th regular meeting	100	100	100
1 st ad-hoc meeting	100	75	85.7
5 th regular meeting	100	100	100
6 th regular meeting	100	100	100
Average attendance	90.5	96.4	93.9

Committee	Composition	Role
Management Committee	3 executive directors	- Perform work in accordance with the Articles of Incorporation and BOD regulations and decisions - Deliberate and decide on the matters delegated by the BOD
Audit Committee	4 independent directors	- Perform accounting and work audits
Related Party Transactions Committee	4 independent directors	- Ensure transparency in related party transactions and comply with fair trade principles
Independent Director Candidates Recommendation Committee	3 executive directors, 4 independent directors	- Nominate independent director candidates
Compensation Committee	1 executive director, 2 independent directors	- Deliberate on the limit of remuneration for registered directors - Deliberate on other matters delegated by the BOD

BOD Operation

Samsung SDI hosts regular BOD meetings and ad-hoc meetings when the need arises. BOD meetings are convened by the BOD Chair, and six regular meetings and one ad-hoc meeting were held in 2019 to deliberate and decide on 25 agenda items. Specifically, one ad-hoc meeting served to discuss the implementation of ESS safety improvement measures. 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), and directors who may have conflicts of interest are banned from exercising their voting rights. Our BOD operates five subcommittees to advance management accountability and assist professional decision-making. By delegating a portion of its authorities to these subcommittees, our BOD improves expertise and efficiency in making critical decisions.

Expertise of Independent Directors
Our independent directors are appointed for their qualifications set forth in applicable regulations or the Articles of Incorporation as well as their extensive knowledge and experience in business administration, economy and the electronics and battery industries in general. They are provided with materials early on to sufficiently review the agenda items to be addressed at BOD or subcommittee meetings. In 2019, all independent directors attended a training course that addressed the changing roles of the audit committee in the introductory phase of the new Act on External Audit of Stock Companies. In 2020, all independent directors were newly appointed in consideration of their expertise across diverse areas. As a result, professionals from essential business-related backgrounds were chosen as independent directors, from a professor who brings his technical expertise to the table in the fields of electrical and electronic engineering and electronic materials to those involved in law and ethics, labor and labor relations, and finance and accounting.

BOD Performance Appraisal and Remuneration

Independent Director Performance Appraisal
Our independent directors receive annual performance appraisals in accordance with internal appraisal criteria. These criteria consist of quantitative indicators (meeting attendance rates, deliberations made on agenda items, and committee memberships) and qualitative indicators (expertise and understanding of business), and comprehensive appraisals are performed on each independent director. Appraisal results are used as reference data in deciding their reappointment.

BOD Remuneration
In conformity with Article 388 of the Commercial Act, the limit on director remuneration is decided by the general shareholder meeting. The Compensation Committee deliberates on the maximum limit of director remuneration as an agenda item to be addressed at the general shareholder meeting in order to review its appropriateness. Director remuneration is paid within the boundary approved by the general shareholder meeting. Executive director remuneration consists of position-specific base salary and performance-based bonus. Performance-based bonus is calculated in consideration of quantitative indicators related to financial performance (sales, net income, and stock prices) and of non-quantitative indicators related to environmental and social performance (safety, labor relations, insolvency, corruption, security, and compliance). Independent director remuneration includes base pay calculated in consideration of their responsibility and the time taken to fulfill their role as well as diverse expenses paid to perform work as an Independent Director. For independent directors, however, their remuneration is not aligned with their appraisal results as it is believed that determining independent director remuneration based on their performance outcomes may degrade the independence of their decision-making.

Category	Unit	2019
Net payment	KRW million	3,669
Total remuneration for executive directors	KRW million	3,330
Total remuneration for independent directors	KRW million	339
Average remuneration per executive director	KRW million	833
Average remuneration per independent director	KRW million	85

* Four independent directors are members of the Audit Committee, and the above data on the number of directors and total remuneration includes those directors and auditors who resigned during the fiscal year of 2019.

Compliance

2019 Achievements

Penalties and sanctions imposed due to the violation of applicable laws and regulations

Zero

Samsung Compliance Committee organized

Compliance Management System

Compliance Program

Samsung SDI operates and manages a compliance program to establish and disseminate a culture of compliance that serves as an anchor of its business operations. This program follows the process of 'prevention-review & monitoring-follow-up management', and its focus areas include cartel, related party transactions, trade secrets, anti-corruption, and subcontracts. In 2019, Samsung SDI and other major Samsung affiliates joined forces to organize and operate Samsung Compliance Committee ("The committee") as an external independent body, and The committee was initiated in 2020. Samsung SDI will reinforce its company-wide compliance management system through interactions with The committee.

Operational Regulations

Samsung SDI set forth and operates the 'Compliance Control Regulation' in conformity with the Commercial Act as fundamental principles to be followed by employees in their business conduct to ensure their full compliance with applicable laws and regulations. These regulations specify operational principles for compliance management, authorities and obligations of the Compliance Officer, employees' compliance obligations, regulatory compliance reviews, and measures to be taken for violations. In 2020, a partial revision was made to the Compliance Control Regulation to reinforce our compliance management and the revised regulations will be applied across our compliance management operations.

Compliance Organization

Dedicated compliance unit was created under the Legal Compliance & IP Team in 2019, and this unit was reorganized into the Compliance Team under the direct leadership of the CEO. While the head of the Legal & IP Team also served as the Compliance Officer, this was changed to appoint a separate Compliance Officer to further highlight the importance of company-wide compliance oversight. With dedicated compliance unit playing a central role, compliance implementation units were set up in respective organizations and compliance implementation managers (to be changed into compliance chief managers in department head positions from 2020 onwards) were appointed starting from 2019. Compliance implementation managers encourage and support their organization members to join such compliance activities as compliance training and self-reviews to advance working-level compliance management. These managers were also provided with year-round newsletters and updates on major regulatory enactments and revisions as well as periodical training to support their capacity improvement.

Compliance System

Samsung SDI operates a compliance system to raise employees' compliance awareness. Our employees can use this system to check compliance guides and manuals and learn about domestic and overseas compliance issues that are updated regularly. The system offers easily accessible assistance to help employees address work-related compliance issues through a range of functionalities including reporting on the contacts made with industry peers, making inquiries, and whistleblowing. In 2019, a new functionality was added in relation to the agreement signed with partner companies on the provision of technical data to prevent the risk of violating technical data-related regulations that are increasingly tightening recently and to improve convenience in managing such data. In 2020, we plan to develop and operate a company-wide system to handle technical data provision issues.

Compliance Operation

Compliance Training

Regular job level-specific training is provided to all employees. Furthermore, special training is offered to employees in charge of handling major risks and employees working at overseas corporations to reinforce their compliance awareness and prevent compliance-related risks. Notably, company-wide training was operated in online format through the use of animations, pictograms, and videos in 2019, and feedback from trainees will be collected and reflected in designing training courses and making reviews in the upcoming years. Special training led by lawyers is provided to expatriates and employees working at overseas corporations to improve their compliance awareness.

Review and Monitoring

We perform compliance reviews and monitoring to prevent the risk of regulatory violations. These reviews consist of on-site face-to-face reviews and non-face-to-face reviews.

- On-site face-to-face reviews: Review employees' work methods and measures taken to identify risks related to socially significant issues and take prompt countermeasures
- Non-face-to-face reviews: Review compliance with work-related internal regulations and processes through system data collection and analyses as well as checklist/paper-based examinations made on employees

Monitoring ensures that preliminary consensus building on compliance is included as an essential component of the work process to prevent the risk of regulatory violations and improve awareness on the importance of compliance. Review and monitoring outcomes of 2019 will be reflected in conducting training and reviews and updating relevant regulations and guides in 2020.

Counseling and Whistleblowing Channels

Samsung SDI offers a range of channels including e-mail, phone, and fax to assist whistleblowers to report on any unjustifiable behaviors of its employees in relation to business conduct. Once submitted, such reports are handled in a confidential manner and the anonymity of whistleblowers is protected. In 2020, our whistleblowing channels, which were separately operated for ethics management and compliance management respectively, were integrated to improve accessibility and convenience for whistleblowers.

Samsung Compliance Committee

In February 2020, seven Samsung affiliates, including Samsung SDI, have established Samsung Compliance Committee ("The committee") as an external body to oversee group-wide compliance management. The committee is responsible for independently supervising and controlling the senior management of Samsung affiliates for their violation of compliance obligations and for directly reviewing issues that pose high risk of compliance violations and offering its opinions to Samsung affiliates. The committee will also receive periodic briefings on the compliance oversight systems of Samsung affiliates to review these systems for their effective operation and make recommendations on necessary improvements.

Talent Management

2019 Achievements

No. of employees

26,813
persons

Ratio of female managers

9.2%
(1% up from 2018)

New hires in Korea and abroad

6,792
persons

* Quantitative data over the past three years is available in the Appendices section of this Report.

Respect for and Protection of Human Rights

Human Rights Management

Samsung SDI respects human rights and the freedom of association as a way to protect human dignity. We are in full compliance with the UN Universal Declaration of Human Rights, International Labour Organization (ILO) conventions, the Responsible Business Alliance (RBA) Code of Conduct, and labor laws and regulations in the regions where we operate. This means that we abide by the standards and regulations of international organizations and bodies working in relation to labor and human rights. To this end, self-reviews are conducted each year either under the supervision of the Headquarters or independently by our worksites to ensure that human rights violations do not occur concerning child labor and forced labor, work hours, wages and benefits, humanitarian treatment, non-discrimination, and the freedom of association. Continuous reviews and improvements are also made on the status of human rights management at our partner companies with the help of the S-Partner certification system. As a result of our 2019 reviews, no violation or discrimination in relation to the ban on child labor and forced labor occurred.

Human Rights and Labor Impact Management at Workplace

At Samsung SDI, annual assessments are made on the status of human rights and labor management to manage vulnerable areas and worksites accordingly. Factors that adversely affect human rights management are also identified to fundamentally prevent the reoccurrence of the same issue. In 2019, human rights and compliance self-assessments were made on 14 overseas corporations (eight production facilities, five sales bases, and one research center) to review relevant risks. For issues identified through these assessments, mid/long-term tasks were chosen to make necessary improvements.

Development of a HR System at the Hungarian Corporation

Samsung SDI's Hungarian corporation, whose manufacturing plant has initiated the full mass-production of automotive batteries since 2018 following the start of its construction back in 2016, serves as one of the Company's major production facilities with 2,842 employees as of the end of 2019. This corporation is also known as a truly global workplace for its diversity with employees coming from diverse national and cultural backgrounds. Its HR system was established in the areas of recruitment, appraisal, compensation, and training in consideration of its specificities and in compliance with applicable local regulations and standards. As such, we continue to create a work environment that respects the diversity of employees.

Human Rights Training

We provide training to prevent sexual harassment and improve awareness on people with disabilities as a way to awaken all our employees to the importance of assuring and protecting basic human rights. To fulfill the requirement to offer such legally-mandatory training and improve training outcomes, we reflect constantly changing internal/external conditions and social needs in designing the training curriculum and introduce new training contents.

The 'It Basic' bulletin board created within our in-house website serves to provide basic-level guides on human rights issues to abide by fundamental human rights principles to eventually establish a sound corporate culture. The board posts anti-sexual harassment training materials and elaborates on action guidelines for employees to follow in order to take cautions and make proper responses to prevent sexual harassment and verbal violence and to improve on drinking culture.

In line with the Workplace Harassment Prevention Law that took effect in 2019, we launched a company-wide training course to 'promote a culture of mutual respect' and uploaded relevant training materials on the It Basic board. Our employees can use this board to file their reports or complaints on human rights issues, and strict measures are taken in accordance with applicable regulations for those issues identified and confirmed.

Talent Recruitment and Development

Recruitment of Outstanding Talent

Samsung SDI applies fair and equal standards in recruiting outstanding individuals. In 2019, a large number of competent individuals was hired in the areas of technology and manufacturing mainly across our domestic and global production bases in Cheonan, Ulsan, Hungary and Vietnam to secure technology professionals. To maintain our global pool of technology workforce, we also launched campus recruitment events that target graduates and undergraduates in the Americas as well as in Korea.

Talent Development System

We operate systemic capacity-building training to nurture top-tier talent. Continuous investments are also made in training infrastructure to improve the efficiency of training. To set the trend in the rapidly-developing technology landscape, we are strengthening our training on process and equipment technology as well as on development to support our employees to improve their capacity in these areas and to build a comparative advantage in technology competitiveness. In addition to in-house training, training courses arranged through industry-academia alignment and a license acquisition support program are operated to help employees develop job-specific expertise and strengthen capacity.

Technology Training Center

Our Technology Training Center is responsible for swiftly securing basic equipment technology capabilities of new recruits and employees relocated from other departments, strengthening common technical capabilities among our technical workforce, and systemically nurturing process and equipment technology professionals. Tailor-made training is provided from introductory to practical levels, and training equipment, made of core components and modules that are deployed under real-life conditions, is used to provide one-person one-kit training with a focus on theoretical understanding and hands-on practice. Under the principle of self-initiated learning, a component technology expert course that covers core equipment components in general as well as a process and equipment expert course intended to resolve equipment-related challenges and chronic process quality issues are operated to help employees reinforce their expertise and assume broader roles.

Technology Training Center will expand its role as a test bench for engineers to directly verify the viability of their ideas while constantly identifying technology capabilities required by the Company and developing training courses accordingly.

Reinforcement of Training Infrastructure

We have expanded training rooms and upgraded facilities at the Human Resource Development Centers located at respective worksites since 2019. At our Giheung worksite, 12 training facilities were created including a 240-seat auditorium in 2018, and another large 120-seat lecture room was added in 2019. Continuous facility upgrades were made, including the upgrade of training facilities and equipment at the Human Resource Development Center at our Cheonan worksite, opening of new training facilities at our Suwon worksite, and the expansion of the computer training facilities at our Cheongju worksite in order to provide new recruit training and job training as well as language learning courses. Going forward, we will make steady investments in our training infrastructure to deliver a pleasant learning environment for employees.

Development of Job Experts

We operate on-the-job and online training courses that address all job categories, including development, technology, manufacturing, sales & marketing, and management support to help employees strengthen their job capacity. Specifically, technology training for development, process & equipment, and quality operations was systematized to operate the SDI Technology Education Program, a technical training course led by in-house instructors. As on-the-job and online training alone may fall short of training needs, we also fully support department-level in-house seminars and learning cells. In addition, master/doctorate degree courses and non-degree courses are provided through industry-academia collaboration to nurture experts in development and technology. A license acquisition support program is also up and running to encourage employees to obtain internationally/nationally-recognized qualifications in the areas of purchasing, quality, management, and finance in order to promote the development of job experts across all fields.

Talent Management

2019 Achievements

Company-wide Change Agents

272 persons

Grievance handling rate

100%

Upgraded parental leave program

Extension of leave by 1 more year
(legally-mandatory period is one year per child)

Expansion of coverage to include

children aged 12 and under
(legally-mandatory coverage is eight years old and under)

* Quantitative data over the past three years is available in the Appendices section of this Report.

Talent Development

Global Capacity Building

Samsung SDI provides a range of language courses to help employees improve their foreign language skills and support their self-development to meet the needs of today's globalization era. These courses, made available across our six nationwide worksites, include the 'foreign language learning residence program', a global capacity-building program to learn languages, business practices, and cultures, and the 'global practical business writing program' as well as 'in-house foreign language courses' and 'OPIc/TSC special lectures' intended to support employees to obtain language qualifications. As our overseas business presence broadens, this alerted us to the importance of English and Chinese conversational skills and to open a 'one-week intensive course' from 2020 onwards to encourage employees to focus on achieving conversational skill grades with a goal of increasing the number of employees with high language skill grades. In addition, regional expert and on-site expert programs are under operation as part of the key global leader development courses to promote intensive language learning and local research in overseas regions. In 2019, our regional experts were sent to China, Vietnam, Hungary and other regions of the world, following their completion of the foreign language learning residence program, to improve their own capabilities through regional research, language learning, and hands-on experience at their assigned overseas corporations and to support overseas corporations with capacity-building.



Hall of Fame for Technical Meisters at the Gumi worksite

Training for Overseas Sales Bases

Samsung SDI has provided its overseas corporations with Headquarters-based training and on-site training. Our annual Global Sales Subsidiary and Engineering Training (GSET) has been under operation on a regular basis since 2018. In 2019, top-performing employees at sales bases in China, Taiwan, the U.S., and Germany were invited to Korea to share Samsung SDI's basic principles, including Samsung and Samsung SDI's core values and compliance and security policies. They also had a chance to visit our Cheonan and Ulsan worksites to receive training on battery technology and manufacturing operations. In 2019, the Global Leadership Course (GLC) was created to engage top-performing department heads from respective corporations to provide leadership training to help them develop essential leadership capabilities such as communication (interview) skills, performance management, and understanding of cultural diversity. The GLC program will be offered on an annual basis and support from the Headquarters will continue to assist corporations to independently develop and operate this program.

Strengthened Technical Leadership

At Samsung SDI, the 'Technical Meister' title is awarded to employees with three job-related master technician (national technical qualifications granted to technicians) certificates or with two master technician certificates and one technician certificate. This program, introduced in 2013, contributes to emphasize the importance of employees' job expertise and to establish a culture of self-directed learning. For these Technical Meisters, copper plates are made in their honor and exhibited in the hall of fame at their worksite. Our Technical Meister program was expanded to include all our worksites in 2016, and each and every Samsung SDI worksite is currently producing their own Technical Meisters. Not only does this program help improve individual employees' work capabilities through self-initiated learning, but also contributes to establishing technical self-reliance on the shop floor through technical transfer from senior to junior employees.

Great Work Place

Expansion of Work-Life Balance Programs

Samsung SDI has expanded the operation of the in-house parental leave program, in addition to supporting its maternity protection and work-life balance programs designated by the Ministry of Employment and Labor. While employees can take one-year parental leave per child according to applicable legal regulations, we have extended this by up to one additional year. Furthermore, we raised the age threshold of parental leave from 8 as stipulated by law to 12 to help ease employees' childcare burden in consideration of their different circumstances, and to fully focus on their work. Our employees can also take leave to care for their family members and use flexible work hours to strike the right work-life balance.

Work-Life Balance

At Samsung SDI, various programs are up and running to help employees enjoy work-life balance. In addition to flexible work hours, we are also operating selective work hours and relevant systems to allow employees to control their own work hours and improve their work engagement in so doing. Furthermore, we encourage employees to manage their holiday plans and to use all their paid time off so that they can enjoy a quality leisure life. Maternity protection rooms are arranged for expectant mothers, and all our worksites operate daycare centers to create a workplace where employees can both work and take care of their children.

Welfare and Benefits Programs

Samsung SDI employees can use a wide array of welfare and benefits programs. As part of our selective welfare and benefits programs, welfare points are awarded to employees each year to be used for culture, education, leisure, and other diverse purposes. To promote the residential stability of employees who have not yet purchased a home, we assist them in paying interests for three years on the loans extended with Samsung SDI's approval to purchase or rent a house in size of 85m² or under, which is considered as a standard national house by the Korean government.

*For further information on Samsung SDI's welfare and benefits programs, please visit the following website <https://www.samsungsdi.co.kr/career/talent-development.html>

Facilitation of Labor-Management Communication

Works Council

Samsung SDI operates the Works Council composed through equal representation between labor and management. The council hosts regular and ad-hoc meetings to discuss the pending issues of wages and labor conditions among others between the two parties as well as employee health & safety, work environment improvements, and other issues relevant to protecting and improving employee rights and interests. Any change brought upon through council meetings is immediately shared among all employees, and issues that require bilateral consultations are notified to employees in accordance with country-specific applicable regulations. Outcomes of council meetings apply to all employees.

Grievance Handling

At Samsung SDI, the grievance channel dubbed 'Sisicolcol' is under operation to file varying grievances. Once submitted, grievances are reviewed in line with our internal operational standards and proper actions are taken accordingly. In 2019, 1,083 grievances were submitted and 100% of them were all handled. Protecting anonymity when deemed necessary and proactively gathering employee feedback to make improvements will surely help Samsung SDI to create a sound corporate culture.



Fall Companion event engaging employees

Advanced Organizational Culture

Improving Samsung SDI's Organizational Culture through Change Agents

To encourage working-level employees to take the lead in advancing our organizational culture, we have appointed 272 Change Agents (CA) at respective departments. These CAs are responsible for planning and operating activities such as improving on work inefficiencies within the organization, facilitating communication and collaboration, and increasing the vitality of the organization.

Organizational Management Indicators

Our department-level organizational management indicators aim to improve the soundness of the organization, and support our organizational culture change management tools. While these indicators include most basic ones that are essential for organizational management, additions or revisions are also made each year in line with major issues. There are 10 indicators in five categories and two domains in total that address such topics as communication & collaboration and work-life balance. In 2019, an integrated organizational management system was launched to increase its operational efficiency. This system visually presents information in tri-colored light format to show the weaknesses of respective organizations, and also enables employees to perform self-assessments.



CA activity - Culture Fair

Social Contribution

2019 Achievements

Employees' participation in social contribution programs

98%

Beneficiaries of Green Planet Environment School

10,626 students

Beneficiaries of Green Planet Dreaming School

3,354 students

Beneficiaries of Green Planet Future Science School

4,298 students

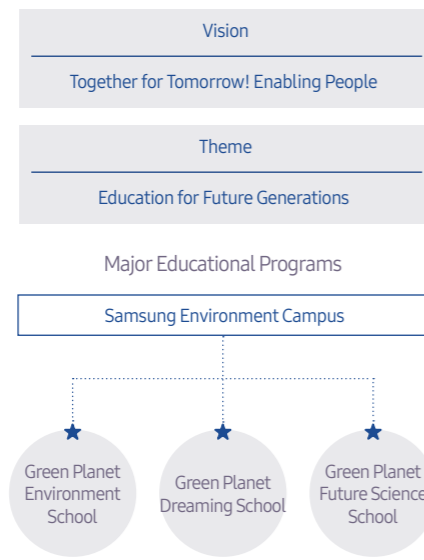
*Quantitative data over the past three years is available in the Appendices section of this Report.

Approach to Social Contribution

Guided by our CSR vision of 'Together for Tomorrow! Enabling People!', we have made effective use of our capabilities both at the company-wide and individual employee level to help children and adolescents who will lead our future to dream a big dream and unleash their full potential and to make the world a better place. In particular, the share of 'adolescent education' which also constitutes the core of our CSR vision has risen and approximately KRW 1 billion was invested in our flagship educational programs in 2019. In addition, a variety of educational donations are made to focus our efforts on bringing positive change to future generations.

The sum of our collective endeavors to contribute to education and the culture of sharing was recognized as we were honored with the Commendation of the Minister of Education, the 'First Prize at the Educational Donation Awards 2019'.

In 2020, we will continue to expand the ratio of adolescent education in our social contribution portfolio to contribute to creating a more flourishing tomorrow for all.



Flagship Educational Programs

Green Planet Environment School

We provide green and energy education for children and adolescents who are the leaders of our future. 'Green Planet Environment School' that targets elementary school students is a hands-on learning program that addresses the importance of environmental protection and proper energy use. Since 2011, our employees have served as instructors to help children access various environmental education and experience-based activities on such topics as renewable energy, global warming, and green transportation. The excellence of this program independently developed by Samsung SDI was recognized with the Environmental Education Program Certification awarded by the Korean Ministry of Environment to further elevate its credibility as a learning program.

'Green Planet Environment School' specifically has in mind those elementary schools that are located in remote island and mountainous areas in the vicinity of our worksites and thus could not provide a sufficient hands-on learning environment due to their financial and geographical limitations. To help address inequalities in educational opportunities, this program is operated in two different formats: summer camps open during the summer vacation period while itinerant Green Planet Environment School buses directly visit beneficiary schools during the semester. Garnering huge interest among children and support from parents, this program was attended by 10,626 students in 2019 to reach 36,836 in total cumulative number of beneficiaries since its launching.



First Prize Awarded at the Educational Donation Awards 2019

Green Planet Dreaming School

As 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, Samsung SDI initiated 'Green Planet Dreaming School', an educational program aligned with the free-semester system, in 2019. Designed for middle school students, this program introduces future business areas linked with Samsung SDI's main business and offers an opportunity for students to develop appropriate understanding on rapidly-shifting future social trends and proper ways to use energy to respond to climate change so that these students can explore their future career paths from new perspectives and broadened horizons.

Green Planet Dreaming School consists of general education offered in four sessions with a focus on science study classes under the free semester system as well as career concerts through which Samsung SDI employees working in related industrial sectors share their knowledge and experience.



Green Planet Environment School – summer camp



Green Planet Environment School – learning on the bus

Following the pilot phase operation in 2018, this educational program was provided to 3,354 students in 2019 to benefit a total of 3,751 students on a cumulative basis.

Our plan for 2020 is to extend the scope of beneficiaries to include middle schools in the vicinity of our six worksites (Yongin, Suwon, Cheonan, Cheongju, Gumi, and Ulsan). The duration of this program will also extend from four to eight sessions to allow for more in-depth sharing of our employees' professional capabilities and the evolution of this program into a more advanced one that enables students to generate their creative outcomes. By offering students an opportunity to search a range of career options and have hands-on experiences, we will contribute to nurturing future talent.



Green Planet Dreaming School – general education



Green Planet Dreaming School – career concert

Green Planet Future Science School

'Green Planet Future Science School' is operated on a monthly basis for underprivileged children who spend most of their after-school hours at local children centers near six Samsung SDI worksites nationwide. This provides them with an opportunity to have hands-on science experience, produce tangible outputs, and conduct experiments that are hardly available under the ordinary curriculum so that they can develop advanced understanding on science and develop convergence and creativity-driven thinking skills. Our employees make talent donations by serving as professional instructors in operating this program.

In addition to general education provided at local children centers, Green Planet Future Science School also hosts annual science camps: children who have participated in this program before are invited to the Company to attend the science concert led by professionals, join experimentation classes with our employees, and experience our business infrastructure. In 2019, this benefited 4,298 children at 27 local children centers in the vicinity of our six worksites. To help narrow the educational divide, we will continue to provide science learning opportunities for children from low-income families and serve as a corporate leader in making educational donations in so doing.



Green Planet Future Science School – general education



Green Planet Future Science School – science camp

Workplace Safety

2019 Achievements

EHS meetings supervised by the CEO

6 occasions

Acquisition of national health and safety engineer qualifications

Industrial safety engineer and above **60%**

Master engineer and above **30%**
(11% increase from 2018)

Completion of safety job qualification training

100%

*Quantitative data over the past three years is available in the Appendices section of this Report.

Workplace Safety Management System

Health & Safety Management Policy

Prior to the complete revision of Korea's Occupational Safety and Health Act in January 2020, we performed impact analyses for respective articles on its pre-announced legislation and realigned our internal processes accordingly. In line with tightening provisions on subcontracts, we specifically identified pre-work health & safety impacts based on our integrated EHS management system. This allowed us to establish processes to preliminary verify our compliance with health & safety regulations and internal standards and eliminate risk factors to ensure workplace safety for employees of our subcontractors. We are also increasing staffing of EHS Group at the Headquarters and respective worksites to respond to the reinforced government policy and strengthen safety for employees and subcontractors.

Operational Standards

In addition to our existing EHS regulations and rules, we established the EHS 10 Commandments as the overarching code of conduct. The 'EHS 10 Commandments Declaration Ceremony' was hosted in attendance of senior management and employees at all worksites, including overseas corporations, which was initiated by the signing ceremony supervised by the CEO. To make these commandments an essential part of daily business routines rather than a short-lived slogan, we distributed promotional materials to all employees and made them chant these commandments in meetings.

Safety Environment Policy

Law & Responsibility Management

- Initiate monitoring to prevent regulation omission and endorsement, which abides by relevant legislation of Environment Safety & Health and international standard & treaty, while establishing specific goals with the reinforced standard.
- SDI shall communicate with all of the related parties such as employees, customers, stockholder, and partner and must fulfill the responsibilities and duties on environmental safety & health energy management.

Eco-friendly Management

- Develop eco-friendly product considering its whole process, and practice eco-friendly management with eco-friendly process technology which uses of energy and resources efficiently.

Implement value with Risk Management in advance

- Safety first management to create a pleasant workplace.
- Set risk management system to prevent accidents in advance and to practice its self safety-management.

Regional Green community

- Take social responsibilities as a global corporate citizenship and practice the continuous environment conservation to maintain companion community.

Safety Environment Policy

EHS 10 Commandments

EHS is the first priority of management.

1	All accidents are preventable.	Safety philosophy
2	Always try to exceed rules, regulations and procedures.	Behavioral principle
3	Continuously seek for practical solutions and answers in the field.	Field-centeredness
4	Indifference is safety's worst enemy.	Safety awareness
5	Modify inefficient practices and ensure all operational changes are communicated openly, mindedly.	Open-mindedness
6	Do not start work unless safety is checked and guaranteed.	Work standards
7	Identify the safety issues' root cause and resolve it to perfection.	Perfect improvement
8	Take responsibility for the safety of partners and co-workers as our family.	People-centeredness
9	Diligently assess ways to improve safety.	Capacity improvement
10	Care about your job site like it is your home.	Safety standards

SAMSUNG

EHS 10 Commandments

Dedicated Health & Safety Organization

Our dedicated health and safety organization is responsible for preemptively reviewing health & safety risks that may occur among employees and local communities and for developing and implementing countermeasures. Training and monitoring is also provided for all employees to recognize and prevent such risks. This organization also operates various channels to communicate with local communities to inform them of actual impacts in the event of incidents and accidents. Furthermore, an internal process is up and running to proactively respond to incidents and accidents.

Integrated EHS System

We operate an integrated EHS system for safety, health, environment, chemicals, and disaster control to prevent safety incidents and perform real-time monitoring. To elevate the objectivity of this system, internal audits are conducted and certification is awarded by independent professional certification bodies.

Emergency Response System

Samsung SDI is establishing an emergency response system to prepare for any and all possible incidents and accidents. Training and exercises are conducted to take emergency response measures through swift and close collaboration across the board, from senior management to working-level employees, in the event of emergency. In particular, professional emergency responders are assigned to each worksite and available 24/7 to address any possible emergency.

Reinforced Facility Safety Certification Process

We have reinforced the existing facility safety certification process in line with our expanding overseas presence and tightening regulations. The safety of facilities is verified by third-parties at respective worksites, and unverified facilities are not provided with electricity to fundamentally eliminate risk factors. In addition, facilities under operation received safety certification audits in accordance with reinforced standards.

Workplace Safety Management

Inspection and Monitoring

At Samsung SDI, periodical assessments are made on the entire EHS sectors on a daily, weekly, and monthly basis. Furthermore, 24/7 monitoring is performed by professionals through the computing system in charge of safety, environment, health, chemicals, and disaster management.

Potential Risk Identification

We identify potential risks as a way to preemptively discover and improve on risks that may occur at workplaces and facilities, and reward best practices. This activity is undertaken at overseas worksites as well as domestic worksites, and potential risks identified as such are uploaded on our computer system to be shared across the board. In 2020, we plan to take a step further to introduce an AI-powered big data analytics program to link potential risks discovered on the shop floor with our production and facility management systems.



Best practice exhibition on EHS Innovation Day



Firefighting drill

Workplace Safety

Behavior Based Safety (BBS) Activity

We have launched a special shop-floor safety program that adopted Behavior Based Safety (BBS) methodology to promote the safety of our employees. In 2019, one overseas worksite was chosen to operate this program with the help of seven experts. During approximately four months, applicable work procedures and actual behaviors of workers were verified and synchronized. In addition, work that had been arbitrarily performed by workers was identified to create appropriate work procedures while unnecessary or risky work was discontinued. This BBS-driven safety program helped improve safety awareness among overseas corporation employees and their participation in safety activities, and even minor incidents did not occur following the initiation of this program. From 2020 onwards, we plan to extend the scope of this program to domestic worksites and a portion of our overseas worksites.

Occupational Health & Safety Training

Samsung SDI provides company-wide health & safety training. Managers, new hires, and those handling hazardous substances and high-risk machinery receive tailor-made training in consideration of their job category and job level, and employees are also offered such personalized training prior to their work assignment and switch to a different work process. In line with the growing interest among employees in health & safety, our training curriculum consists of more than 200 courses to meet their distinctive training needs. In particular, a process is up and running for new hires in manufacturing positions to provide them with pre-assignment training and to make work assignments only when they score above the set threshold. Furthermore, professional instructors are regularly invited for training, and wide-ranging health & safety training programs are made available, including external hands-on safety training.

Establishment of Safety Culture

We make use of internal safety culture assessment tools to measure the level of our safety culture among domestic and overseas employees and make necessary improvements. In making such assessments, our domestic operations are categorized into manufacturing, development, and office administration, and overseas operations into manufacturing and technology. To ensure objectivity in this regard, this is further complemented by interviews conducted on department heads and employees to monitor the level of our safety culture and improve and manage those areas falling short of the required standards.

Dissemination of Safety Culture among Subcontractors

As our responsibility for safety management expands along the supply chain in line with the complete revision of the Industrial Safety and Health Act, we extended the scope of our safety management from 57 in-house subcontractors to a total of 238 subcontractors, including equipment makers and infrastructure construction subcontractors as well. We increased staffing mainly in charge of health and safety operations to prevent any possible accidents, and introduced a preliminary risk factor evaluation program to identify risk factors at construction sites and proactively develop safety measures. On the day of performing construction work, confirmation is made by three departments in charge of execution, approval and safety of high-risk construction respectively to ultimately ensure that all safety measures were completely taken prior to granting work approval.

Battery Safety Management

Safety comes first before anything else in the battery industry. As such, Samsung SDI strengthened its safety process to check battery safety even from the product development phase. We also went the extra mile to realign our standards on battery handling and storage according to their risk level to prevent any and all fires from occurring. In preparation for such accidents that do occur in spite of our best efforts, we constantly build emergency response preparedness by performing fire drills for domestic and overseas firefighting crews to ensure prompt emergency response.

Chemicals Management

Chemicals Management System

Our Global Environment, Health & Safety (G-EHS) system system ensures that chemicals are inspected for their possible conflict with applicable laws and regulations to manage their entry and use at our worksites. Any and all chemical substances that enter our worksites (raw/subsidiary materials, development materials, and consumables) receive impact reviews and assessments across EH&S categories prior to their purchase, and a system is up and running to ensure that these substances are verified for their legal compliance during the purchasing and worksite entry process. Furthermore, this system is applied to our overseas worksites as well to disseminate practices to use chemicals safely.

Workplace Chemicals Management

To protect our employees from health impairments and work-related diseases, we reflect regulations on harmful substances to human body (e.g. carcinogens) as well as regulated substances in creating and managing a list of internally-regulated chemical substances. These substances are then graded into Group A, B, and C, and an approval system is operated accordingly so that chemicals that enter our worksites 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. In addition, total inspections are conducted on chemical substances at least every quarter to identify the overall status of chemicals used and stored at our worksites, and regulatory compliance concerning Material Safety Data Sheet (MSDS) and warning sign installation is monitored.

Work Environment Measurement

Our production and R&D processes that inevitably handle various hazards receive work environment measurements performed by external measurement organizations on a biannual basis. Year-round measurements are also made on process changes and newly-introduced substances to comply with applicable legal standards. For hazards that emanate from the entire process in general, 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, mutagenic, or reprotoxic 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, seal affected equipment, and improve ventilation in order to deliver a safe work environment for employees.

Local Exhaust Ventilation Equipment Management

Our processes that handle chemicals are equipped with local exhaust ventilation to create a safe work environment free from process-induced hazards. Such local air ventilation equipment is inspected and assessed at least every year, and hoods, ducts, and fans are managed to maintain their exhaust velocity above the mandatory legal threshold. At domestic worksites, regular deep-dive assessments are performed through consulting offered by external professional organizations. In 2019, equipment investments were made to block and seal the source of hazards and to improve the air flow efficiency of ventilation equipment. These improvements made at domestic worksites are being disseminated to overseas worksites to improve their work conditions.

Health and Healthcare Management

Employee Health Improvement

We support all our employees to receive regular health checkups as stipulated in the Industrial Safety and Health Act, and diagnose and prevent diseases early on through comprehensive life-cycle health checkups. Based on health checkup results, employees with medical conditions and those who belong to high-risk groups are referred to the Samsung SDI medical clinic (health care office) to receive healthcare counseling. Key opinion leaders in the healthcare sector are invited to provide training, and health promotion activities are undertaken in connection with local health centers to support employees' healthcare management. To prevent work-related musculoskeletal disease burden, relevant work processes are regularly inspected for possible hazards, and their work procedures are modified in collaboration with relevant departments if deemed necessary based on inspection outcomes in order to improve on such work. Our Cheonan and Gumi worksites operate the musculoskeletal center to help employees improve on their musculoskeletal symptoms caused by their daily habits as well as work-related ones. In particular, our Cheonan worksite launched the Total Health Care program for employees who belong to high-risk groups through the alignment among its in-house clinic and gym and the Medifit program. This helps employees measure their physical strength, do strength exercises, and receive manual therapy to regain their health.



Environmental Management

2019 Achievements

Water consumption intensity

0.07

kilotons/KRW 100 million
(Fell by 0.02 kilotons/
KRW 100 million from 2018)

Effluent discharge intensity

0.03

kilotons/KRW 100 million
(Fell by 0.01 kilotons/
KRW 100 million from 2018)

Waste generation intensity

1.22

kilotons/KRW 100 million

Waste recycling

Domestic **92.7** %

Overseas **85.1** %

* Quantitative data over the past three years is available in the Appendices section of this Report.

Water Resources Management

Water and Effluent Management

At Samsung SDI, we take an extremely elaborate approach to our use of water and the generation and treatment of effluents to conserve water resources and reduce the discharge of water pollutants. The effluents generated from the battery cleaning process are selectively recovered to be reused as gray water, and the effluents generated exclusively from the manufacturing process are recycled through the reverse osmosis (R/O) system. All effluents from our worksites are treated for pollutants through our on-premise effluent treatment facility, and the effluents treated as such move to the regional sewage treatment plant for secondary processing.

Category	2019
Domestic	
Giheung	318
Suwon	11,968
Cheonan	729,475
Cheongju	340,047
Gumi	388,137
Ulsan	643,270
Subtotal	2,113,215
Overseas	
Malaysia	357,992
Tianjin	57,721
Xian	61,491
Wuxi	549,525
Hungary	129,488
Subtotal	1,156,217
Total	3,269,432

Pollutant Management

Management of Air Pollutant Emissions

To ensure the complete treatment of air pollutants generated from our worksites, we install appropriate control equipment at each of our emitting facilities. Pollutants that are emitted to the atmospheric environment following their treatment are proactively monitored and their status is observed to measure the generation of pollutants and manage their trajectory. To reduce the generation of particulate matter that is emerging as a serious environmental issue recently, we have replaced once-through boilers with low-NOx burners at our worksites, and improved on fillings to increase their pollutant mitigation capacity. As such, we are continuously committed to properly treating and reducing pollutants.

Management of Water Pollutant Discharge

To facilitate the treatment of water pollutants, we apply stringent standards in operating and managing effluent treatment facilities. In particular, our internal pollutant treatment standards that were separately developed ensure that effluents are discharged at concentrations that are well below applicable legal requirements. Periodic monitoring is also performed to manage the trajectory of pollutants generated. Furthermore, annual 'water quality analysis capacity assessments' are made on those companies that measure water quality at our worksites to maintain the reliability of water pollutant measurement data.

Category	2019
Water Pollutant	
BOD	7,677
COD	16,458
SS	23,707
Air Pollutant	
NOx	24,651
SOx	7,946
Dust	20,482

Waste Management

Endeavors to Ensure Safety in Waste Management and Reduce Waste Generation

Samsung SDI applies internal standards that are stricter than the legally-permissible standards set by the government in treating pollutants. Any and all waste generated from the manufacturing process is treated by outsourcing companies specialized in waste treatment, and these companies are assessed annually and verified frequently for their regulatory compliance to doubly make sure that waste is treated in accordance with applicable regulations. Meanwhile, we also increase the recycling of end-of-life batteries and scraps generated from the manufacturing process to ultimately reduce the generation of waste.

Category	2019
Domestic	
Waste recycling	92.7 %
Overseas	
Waste recycling	85.1 %
Domestic	
Total generation	58,246
- General waste	28,082
- Designated waste	30,164
Waste recycled	53,975
Landfills	4,270
Overseas	
Total generation	65,176
- General waste	39,828
- Designated waste	25,348
Waste recycled	55,451
Landfills	9,725

Environmental Efficiency Goals

We set environmental efficiency goals to mitigate our environmental impact that arises from the manufacturing process. These goals concern our water consumption, use of harmful substances, discharge of waste and recycling, and we are committed to attaining these goals by 2020.

	2015	2020 Goals
Water consumption	0.11 kilotons/KRW 100 million	200% + improvement
Harmful substance consumption	0.43 kilotons/KRW 100 million	200% + improvement
Waste discharge	0.97 kilotons/KRW 100 million	200% + improvement
Waste recycling	96%	95% and above
Waste landfill	4%	5% and under

* Scope of data (except water pollutant and air pollutant data) collection: All production facilities in Korea and abroad, the Headquarters, and the R&D Center (excluding sales bases and offices, and including those production facilities only that have production records for 2019)