



**TO MAKE THE WORLD  
GREENER AND SUSTAINABLE  
THROUGH OUR  
INNOVATIVE TECHNOLOGY**



# ABOUT THIS REPORT

## Reporting Principles

This Report was prepared in accordance with the Global Reporting Initiative (GRI) Standards 2021, and discloses a range of sustainability data in reflection of the Industry Classification System of the Sustainability Accounting Standards Board (SASB) and the recommendations of the Task Force on Climate-related Financial Disclosure (TCFD).

## Reporting Period

This Report illustrates Samsung SDI's sustainability management activities and achievements during the 2022 fiscal year (Jan. 1, 2022 ~ Dec. 31, 2022). This may extend to the first half of 2023 for the timeliness and materiality of the information contained, and to the recent three years (2020~2022) for some data whose multi-year trajectory is required to help readers properly understand such data.

## Reporting Scope

The scope of this Report spans the economic, social and environmental information of Samsung SDI and its associates. Financial data is stated on a consolidated basis in accordance with K-IFRS, and annotations were added when variations occurred in reporting scope and boundary.

## Reliability of the Report

This Report contains financial data audited by KPMG Samjong Accounting Corp., as well as non-financial data assured by the Korea Management Registrar for its compliance with the principles of inclusivity, materiality, responsiveness and impact

## Reporting Cycle

Reporting cycle | Annually

Most recent report | June 2022

---

**For inquiries on this Report, please contact us below:** Sustainability Management Office, Business Management Office, Samsung SDI

+82-31-8006-3100 | sustainability@samsung.com | 150-20, Gongse-ro, Giheung-gu, Yongin City, Gyeonggi Province, Korea [17084]



# CONTENTS

## OVERVIEW

---

CEO's Message	05
Company Overview	06
2030 Company Vision	07
Business Overview	08

## SUSTAINABILITY MAIN THEMES

---

1. Infinite Safety	29
2. Move to Net-Zero	39
3. Partnership with Value-Chain Partners and Community	52
4. Accountability in Value-Chain	59
5. Credibility in Corporate Governance	71
6. Transparency in Stakeholder Engagement	81

## SUSTAINABILITY MANAGEMENT

---

Sustainability Management Strategic Framework	17
Sustainability Management Operational Framework	19
Environment Management Implementation System	22
Risk Management System	24
Joining Global Initiatives	26

## APPENDIX

---

Materiality Assessment	87
Financial Performance	89
Sustainability Performance	91
GRI Standards 2021 Index	100
SASB Index	103
TCFD Index	104
UN SDGs	105
GHG Verification Opinion	107
Independent Assurance Statement	109



# OVERVIEW

CEO's Message	05
Company Overview	06
2030 Company Vision	07
Business Overview	08



## CEO's Message

### Dear Stakeholders of Samsung SDI,

In 2022, we were presented with ever greater uncertainties in the global business landscape amid the sustained COVID-19 pandemic, the spread of protectionism, and global supply chain disruptions.

Nonetheless, all of us at Samsung SDI, from employees to partners, strongly aligned ourselves towards our commitment to 'Super-gap' technology competitiveness, the best quality, and profitable qualitative growth, and such worthy efforts allowed us to surpass KRW 20 trillion in revenue and post KRW 1.8 trillion in operating profit.

Last year, we reached yet another significant milestone in laying the groundwork to bolster our ESG management in a systematic and ongoing way. To drive our sustainability efforts, we announced our long-term sustainability management strategy and established the Sustainability Management Committee within the Board. Moreover, we declared our commitment to 'Environment-Friendly Management' and joined RE100, a global renewable energy initiative, to do our part in tackling the global climate crisis.

Our top priority for 2023 will be to disseminate ESG management across our supply chains and the whole of our value chain. From this year on, we will disclose our Scope 3 emissions, other indirect greenhouse gas emissions generated along a company's value chain, and we will assess ESG risks across all our global operations and supply chains.

Meanwhile, Samsung SDI will earnestly strive to fulfill our social responsibility for the environment, safety and compliance. We will also gain greater trust through promotion of mutually-beneficial cooperation with our partners and a harmonious co-existence with our local communities, genuinely reaching out to our stakeholders on an ongoing basis.

At Samsung SDI, we firmly believe in the value of diversity and inclusion in every area of our business conduct. Any form of discrimination on the grounds of gender, religion or nationality is strictly prohibited across all our global operations, and every individual is provided with equal opportunity to pursue growth as one united team.

We look forward to your bountiful encouragement and support as we stride towards 'making the world greener and sustainable through our innovative technology' and becoming a global top tier company by 2030.

Thank you.

**Yoonho Choi**  
President & CEO, Samsung SDI





# Company Overview

## Samsung SDI at a Glance

Since its foundation back in 1970, Samsung SDI produces and sells rechargeable batteries used for electric vehicle, IT device, and Energy Storage System (ESS) applications as well as materials for semiconductors and displays. We commit to securing super-gap technology through transformation and innovation to shape a sustainable, eco-friendly future society.

Company name	Samsung SDI Co., Ltd
CEO	Yoonho Choi
Establishment	January 1970
Headquarters	150-20, Gongse-ro, Giheung-gu, Yongin City, Gyeonggi Province, Korea
Total No. of shares outstanding (common shares)	68,764,530 shares
Total workers	30,716
Shareholders with 5% or more ownership (as of Dec. 31, 2022, common shares)	Samsung Electronics: 13,462,673 shares (19.58%) National Pension Service: 5,449,458 shares (7.92%) BlackRock Fund Advisors: 3,444,030 shares (5.01%)

## Global Network

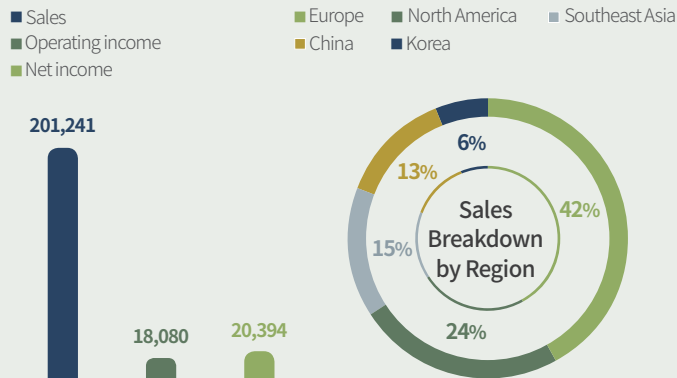
Samsung SDI's global network consists of 31 locations in total, including the Headquarters, the R&D Center, production facilities and sales bases.

Headquarters	1
Production Subsidiaries	12
Sales Subsidiaries/Offices	13
R&D center	5
<b>As of April 2023</b>	<b>31</b>
locations in total	



## Financial Performance

(Based on 2022 consolidated financial statements, unit: KRW 100 million)



## External Assessments Made on Samsung SDI

**MSCI ESG RATINGS** A

Received A in ESG rating in 2023 for 4 consecutive years

**GLOBAL 100**

Ranked 63<sup>rd</sup> in 2023, listed for 6 consecutive years

**Member of Dow Jones Sustainability Indices**

Listed on the DJSI World for the 18<sup>th</sup> time in 2022

**CLEAN200**

Ranked 38<sup>th</sup> in 2023, listed for 5 consecutive years

**CDP DISCLOSURE INSIGHT ACTION**

2022 Climate Change Score: A-

1) Supervised by MSCI (Morgan Stanley Capital International)  
 2) Supervised by S&P Dow Jones and RobecoSAM  
 3) Supervised by the CDP (Carbon Disclosure Project)  
 4), 5) Supervised by Corporate Knights



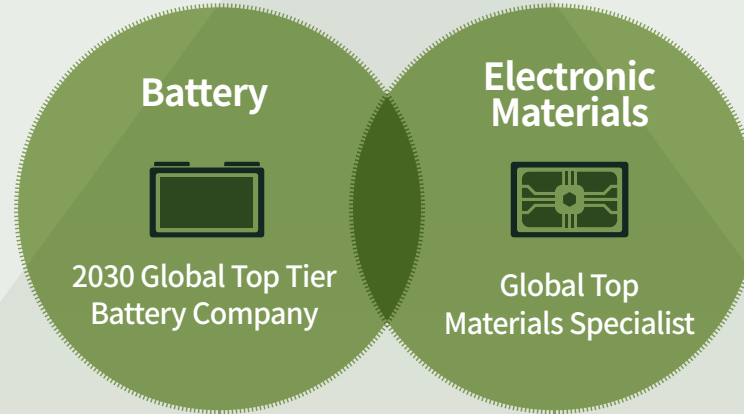
# 2030 Company Vision

Samsung SDI established a new 2030 vision to evolve into a global top-tier company by 2030. Everyone at Samsung SDI move towards the vision of 'To make the world greener and sustainable through our innovative technology'

Vision Statement

## TO MAKE THE WORLD GREENER AND SUSTAINABLE THROUGH OUR INNOVATIVE TECHNOLOGY

Business Goal



Mission & Strategy

### TECHNOLOGY INNOVATION

Secure super-gap technology and differentiated products

### PROFITABLE GROWTH

Pursue profitable qualitative growth

### OPERATIONAL COMPETENCY

Strengthen global operational competency and create a premier corporate culture

### SUSTAINABILITY LEADERSHIP

Bolster ESG management and seek win-win partnerships

# Business Overview

## Automotive Battery

### Business Summary

As the sales of xEVs continued to grow rapidly to account for over 10% of global automotive sales in 2022, Samsung SDI is leading the charge in the transition to xEVs by developing innovative battery technology. We secure super-gap technology competitiveness and differentiate products to position ourselves as an xEV battery leader, and supply high-efficiency, high-capacity Li-ion batteries to global automotive OEMs to help minimize the environmental impact of internal combustion engine vehicles.

### Application



#### Electric Vehicle (EV)

We deploy materials that deliver optimal service life and high-capacity features and design optimized battery components to pursue innovation in extending the driving range of EVs.



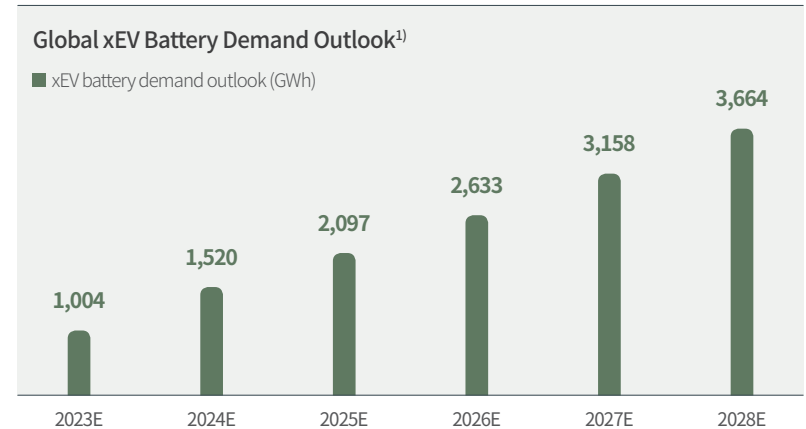
#### Plug-in Hybrid Electric Vehicle (PHEV)

As it is essential to strike the right balance between energy density required for electric-mode driving and power density that supports the engine operation, we are in constant search for the optimal point of balance by staying ahead of the competition in developing battery technology.



### Market Outlook

In 2022, the sustained pandemic, supply chain disruptions caused by the Russo-Ukraine war, and inflationary pressure stalled the growth of the overall automotive market. Still yet, xEV sales continued to increase to surpass 10% of total automotive sales. In Europe, tightening carbon emissions regulations drive the continuous growth of the xEV market while the IRA (Inflation Reduction Act) of the US is expected to spur the nation's xEV market. In China, it is forecast that new energy vehicles will make up 30% of new vehicles in 2023. Global EV makers plan to launch a range of new EV models in line with the initiatives undertaken by key countries to phase out internal combustion engines. Naturally, the xEV market will maintain its growth momentum, with annual xEV sales exceeding 46 million by 2028 to account for nearly 46% of the total automobile market.



1) EV and PHEV combined

\* Source: Samsung SDI forecast (as of May 2023)



# Business Overview

## ESS Energy Storage System

### Business Summary

Samsung SDI applies our technology and manufacturing process tested and proven in our EV battery business to ESS battery to secure high market shares and deliver reliable product quality. This ensures that we leverage our best-in-industry battery design competency and standardized modules to create a diverse product portfolio across the utility, commercial & industrial, residential, UPS and telecom sectors and deliver end-to-end ESS solutions that cater to varying customer needs.

### Application



#### Utility

Installation | Solar/Wind generation plants, substations, etc.

We contribute to ensuring the stability of power grids in the power supply system spanning from power generation to transmission and distribution, and to standardizing renewable energy power generation.



#### Commercial & Industrial (C&I)

Installation | Buildings, factories, etc.

We improve the stability of power operation and the availability of self-consumption by lowering day-time maximum loads in commercial buildings including office spaces, public institutions, schools and hospitals.



#### Residential

Installation | Detached and row houses

We ensure 24/7 supply of eco-friendly energy through alignment with photovoltaic(PV) power systems. This in turn increases residential energy self-consumption rates while reducing electric bills.



#### UPS

Installation | Factories, financial institutions, IT companies (servers), etc.

We help protect data centers from unexpected operational disruptions by ensuring reliable power quality and continuity while minimizing total power consumption and reducing facility investments.



#### Telecom

Installation | Base stations, repeaters

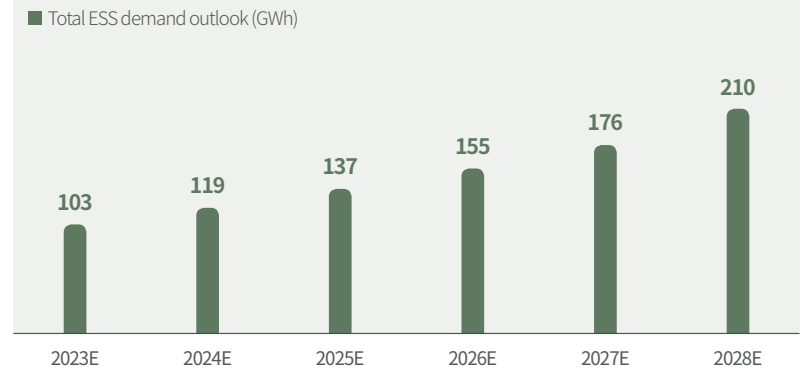
We deliver lifetime performance as well as reduced weight, smaller volume and higher energy density, and bring a dramatic reduction in maintenance expenses through the use of Li-ion batteries.



### Market Outlook

Countries around the world are increasing investments in green infrastructure to stimulate the economy slowing down amid the continued pandemic, and the Russo-Ukraine war heightened interest in energy security to accelerate the global transition to renewable energy. This resulted in sustained demand growth in ESS installations that are essential for energy supply/demand management, and the global LiB ESS market is expected to achieve a CAGR of 15%, expanding from 103 GWh in 2023 to 210 GWh in 2028. Notably, sizable market growth is expected in the US, China and Europe where large-scale, government-led green policy initiatives are being undertaken. The US signed the IRA into law to significantly increase investment support for ESS projects, and China set a national goal for ESS installation and is raising the proportion of renewable energy generation. Europe is also formulating its own plan to support renewable energy through the Green Deal Industrial Plan. Meanwhile, Korea and Taiwan are planning for government-driven initiatives to distribute utility ESSs, and these emerging markets are also expected to boost in line with expanding datacenter construction and the resulting growth in UPS demand.

#### Global LiB-ESS Demand Outlook



\* Source: Samsung SDI forecast (as of May 2023)

# Business Overview

## Small-Sized Li-ion Battery

### Business Summary

Samsung SDI engages in the development and sales of small-sized Li-ion batteries that are categorized into cylindrical and pouch forms. These batteries are expanding their application into broader areas, powering such mobile devices as smartphones, laptops, and power tools in line with the growing market needs for portability, ranging from wearables and micro mobility. On the back of our quality-first management philosophy and steadfast commitment to technology innovation, we maintain solid market dominance in the global small-sized Li-ion battery market.

### Application

Small-sized Li-ion batteries are categorized into batteries that power the three major IT devices of mobile phones, laptops and tablets as well as wireless earbuds and to batteries that supply power to power tools, e-bikes, e-scooters, electric vehicle(EV)



#### Cylindrical

Power tools, gardening tools, vacuum cleaners, e-bikes, e-scooters, electric vehicle(EV)



#### Pouch

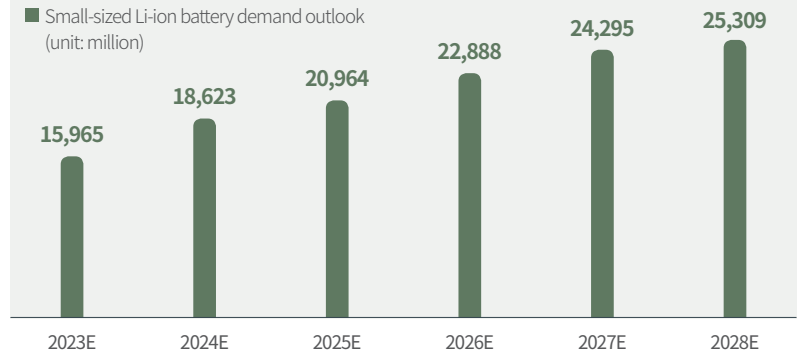
Smartphones, tablets, wearables, wireless earbuds



### Market Outlook

As the lifting of COVID-19 lockdowns and the resulting global economic downturn add to uncertainties across the market, the small-sized Li-ion battery demand for 2023 is forecast to rise by 20% year-on-year to 16 billion cells<sup>1)</sup>. While the 2022 growth was negative in the IT sector due to sluggish demand for the three primary devices of smartphones, laptops, and tablets, the total demand is set to grow continuously in line with 5G-enabled digital transformation progressing at full scale, the growth potential of IoT, metaverse, and other new market segments, and increases in demand for wireless earbuds and other wearables. In the power application market, we will witness lackluster demand for power tools that are driven by the US. Still, mobility electrification will accelerate with the policy support provided by governments worldwide. EV startups and car OEMs will boost their EV manufacturing, and demand for micro mobility including e-bikes and e-scooters will rise mainly in Europe, leading the growth of the cylindrical battery market.

### Global Small-sized Li-ion Battery Demand Outlook



1) Based on demand in our 2023 business plan  
 \* Source: Samsung SDI forecast (as of May 2023)



# Business Overview

## Electronic Materials

### Business Summary

Since the development of EMCs for the semiconductor manufacturing process in 1994, we have established our competitiveness in electronic materials business on the strength of our core technology and expert competency. Samsung SDI mainly engages in the development and sales of semiconductor and display materials. Not only do we bolster our leadership in the established market, but we also remain committed to securing our competitive advantage for such next-generation cutting-edge materials for QD, OLED, EUV lithography market.

### Application



#### Semiconductor

We produce patterning materials (SOH, SOD, and slurry) used to form semiconductor wafer patterns as well as packaging materials (EMC) that protect semiconductors and chips from the external environment.



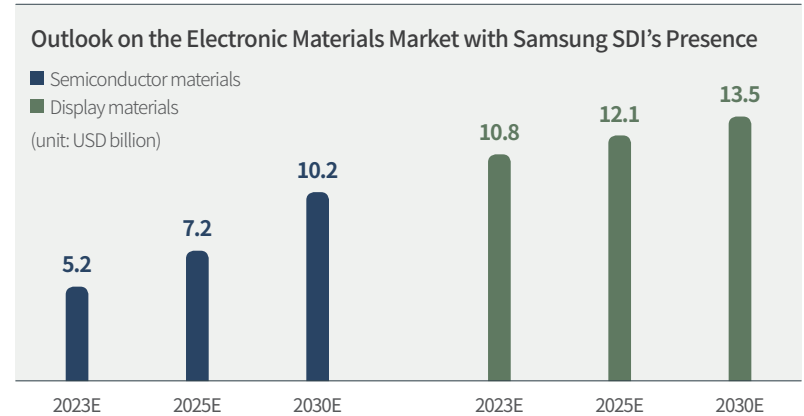
#### Display

Our electronic materials are mainly adopted for LCD, OLED and other display panels. These materials are sold in the form of films or base composite materials, and include films such as POL (polarizing film), FOCA and process materials such as OLED materials and color Photo Resist (color PR).



### Market Outlook

As the global economic growth is expected to decline amid the worldwide inflationary pressure, and international conflicts, this will dampen the market demand for electronic materials in 2023. While positive signals are observed in the semiconductor market from the long-term demand perspective in the wake of the emergence of ChatGPT, companies may find it difficult to exhaust their inventory for the time being amid the sharp drop in demand, and the related materials market won't be experiencing sizable growth. The display market is forecast to maintain its negative growth from the previous year or inch up slightly while OLED-related market growth will be solid in line with the increasing adoption of OLED for IT and TV products and the size of such products becoming ever larger.



\* Source: Samsung SDI forecast (as of May 2023)

# Business Overview

## 2022 Business Highlight

### All-Solid-State Battery

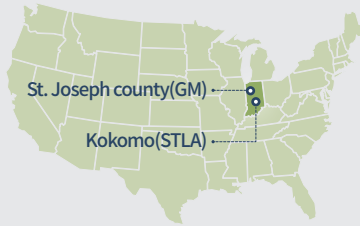


#### Completing an all-solid-state battery pilot line

In March 2023, we completed a 6,500 m<sup>2</sup>-sized all-solid-state battery pilot line at the SDI R&D Center. This facility dedicated to all-solid-state battery manufacturing will drive our efforts to secure manufacturing technology as well as producing industry-leading research outcomes for all-solid-state battery.

### Automotive Battery

Indiana, US



#### Further tapping into markets in the Americas

Samsung SDI partnered with GM (General Motors) to establish an EV battery joint venture in the US. With a goal of initiating mass-production in 2026, we will invest more than USD 3 billion to build a plant with over 30GWh in annual capacity. Following our first joint venture formed with Stellantis, this partnership will create our second battery production facility in the US to further drive our efforts to tap into the US market.

### Energy Storage System



#### Securing DC box solutions with best-in-class safety performance for the SBB

Samsung SDI secured battery DC box solutions that satisfy the most rigorous safety criteria set out in today's global standards. In so doing, we increased the installed battery capacity within the SBB (Samsung Battery Box), and integrated all devices required for operation to improve our competitiveness from the TCO perspective.

### Small-Sized Li-ion Battery



#### Expanding our cylindrical battery line in Malaysia

To cater to the recent growth in cylindrical battery demand, Samsung SDI invested KRW 1.7 trillion in expanding our cylindrical battery line in Malaysia. The 2nd plant where our PRiMX cylindrical battery will be manufactured broke ground in July 2022 and is set for completion in 2025.

### Electronic Materials



#### Leading the market with FOCA and initiating the development of inorganic photoresists

We launched competitive products on the strength of our exceptional FOCA (Foldable Optical Clear Adhesive) technology, leading the display materials market in 2022.

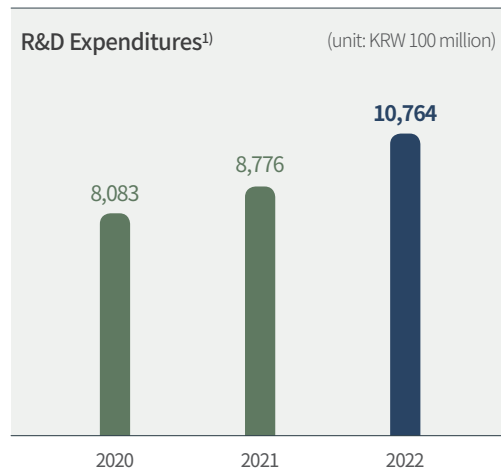
We also initiated the development of inorganic photoresists (PR) noted for its potential for sizable growth in the next-generation semiconductor market, and are currently engaging in sample evaluation.

# Business Overview

## R&D

### R&D Approach

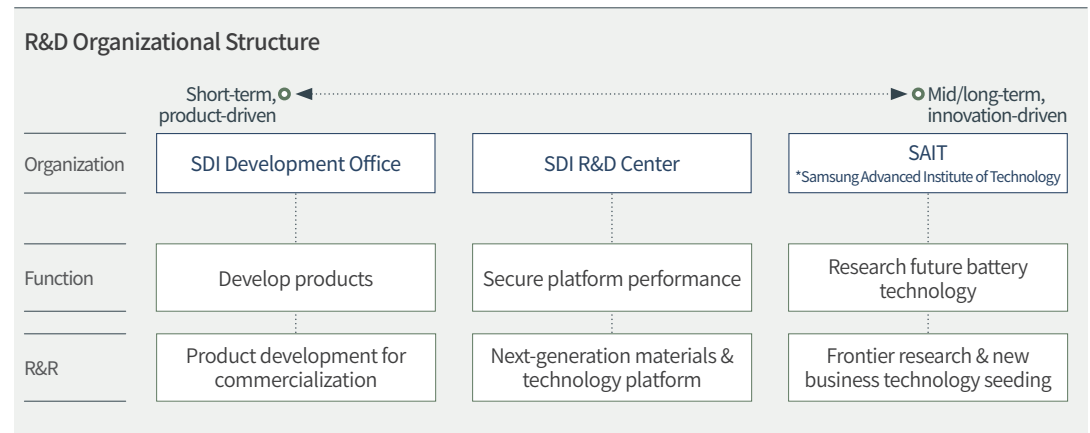
In response to the growing needs for eco-friendly and safe products, Samsung SDI is proactively engaging in R&D to build differentiated technology competitiveness. We also drive our R&D efforts to move ahead in embracing new products and technologies with a focus on battery, IT devices, and semiconductor/display electronic materials. Not only do we set the trend in the rapidly-evolving technology landscape, but we strive to secure future growth drivers. Furthermore, our R&D operations aim to bolster our expertise in researching and developing battery materials and to contribute to ESG management by further exploring recyclable materials to ensure the reliable supply of raw materials.



1) Excluding governmental subsidies, on a consolidated basis

### R&D Organizational System

Samsung SDI operates the SDI R&D Center tasked with establishing platform performance as well as R&D organizations within respective business divisions to reinforce its global technology leadership through close collaboration across business divisions. Small-Sized Li-ion and Automotive and ESS Business departments are located at the Giheung worksite to improve efficiency in battery development. The Electronic Materials Business has moved into the Samsung Future Technology Campus to generate synergy through joint material R&D endeavors. To tailor our R&D on new battery technology to different regions of the world, we opened overseas R&D centers in Munich, Germany (SDIRE, SDI R&D Europe) in July 2022, in Boston, the US (SDIRA, SDI R&D America) and in Shanghai, China (SDIRC, SDI R&D China), paving the way to strengthen our global R&D capabilities.



### Open Innovation

Our strategic industry-academia cooperation program aims to help Samsung SDI secure next-generation battery technology and nurture top-notch talent. The second such program spanning 2022 to 2026 welcomed KAIST as a new member in addition to Seoul National University, POSTECH, Hanyang University, Sungkyunkwan University, and UNIST who attended the first program. Besides, we continue to partner with domestic and overseas universities leading in battery research to set us apart from the competition in technology development while operating R&D centers in the US, Europe and China to reinforce our R&D capabilities.



# Business Overview

## Battery R&D Activities

### All-Solid-State Battery

Samsung SDI is developing all-solid-state batteries which deploy solid electrolytes in place of liquid ones normally used for conventional batteries with an aim to improve battery safety and energy density. With our success in designing and synthesizing solid electrolytes, we have led the way in technology development by manufacturing all-solid-state battery prototypes. We also developed anode-less all-solid-state battery technology with improved cycle life through the adoption of independently-configured solid electrolyte materials and lithium anodes to demonstrate best-in-industry energy density and performance.

Our 6,500m<sup>2</sup>-sized S-Line initiated its construction at the SDI R&D Center in March 2022 as our all-solid-state battery pilot line and completed in March 2023. This pilot line will enable us to start the production of small-sized sample cells and conduct performance, materials, parts, and process tests. We will secure the technology to manufacture larger cells and scale up our manufacturing towards the commercialization of all-solid-state battery.

### Cobalt-free Battery

Cobalt, a key raw material for battery production, is instrumental in ensuring battery safety and performance. Its high prices and geographical concentration, however, also gives rise to supply/demand risk. To mitigate such risk, we are exploring cobalt-less cathodes with reduced cobalt content or cobalt-free cathodes for our high-capacity battery production. Samsung SDI is developing NMX material which does not contain cobalt and still retains the strengths and basic properties of existing cathode materials to the fullest possible extent. Applying NMX that is eco-friendly and price-competitive while mitigating the risk of raw material supply/demand for battery mass-production will surely assist Samsung SDI in securing competitiveness in the EV and ESS battery markets.

### Battery Recycling

The burgeoning EV market will naturally lead to increases in the generation of end-of-life batteries, which draws our attention to minimizing the resulting environmental impact. To expand resource reclamation through battery recycling, we opened the Recycling Research Lab exclusively responsible for researching ways to recycle end-of-life batteries within our R&D Center in May 2022. Work is on-going to increase the recovery of battery materials and reclaim eco-friendly materials, and the Lab will also engage in technology cooperation with partners and in industry-academia collaborations to develop new recycling technology. This, in turn, will help us continuously raise the proportion of recycling such core battery raw materials as cobalt, nickel, and lithium.

## Patent Management

Samsung SDI leverages patents to safeguard our technology and develop market-leading products and services while managing patent-related risks that may occur in business conduct. We proactively file and register our patent applications on our proprietary technology across major countries in consideration of our markets and production locations, and prevent technology associated with trade secrets from being leaked by registering such technology as trade secret and managing them accordingly. We have remained steady with our patent registration efforts since the early days of business to establish a wide-ranging patent portfolio covering the full spectrum of rechargeable battery and electronic materials, and have put our patents to work in bringing market-leading innovative products to market. As to next-generation technology, not only do we develop our internal technology capabilities, but also partner with leading universities and research institutes in Korea and overseas to secure patents in promising future technology areas. For exceptional external patents, we increase our freedom to operate either through patent licensing or patent acquisition. Meanwhile, we minimize patent risk through rigorous verification of competitor patents in the product development process. Our patent competitiveness gained as such ensures that we continue and expand stable business relationships with our customers and suppliers. As of the end of 2022, Samsung SDI's pool of patents included 5,782 patents in Korea and 13,415 patents overseas.

### Patents Registered on a Cumulative Basis

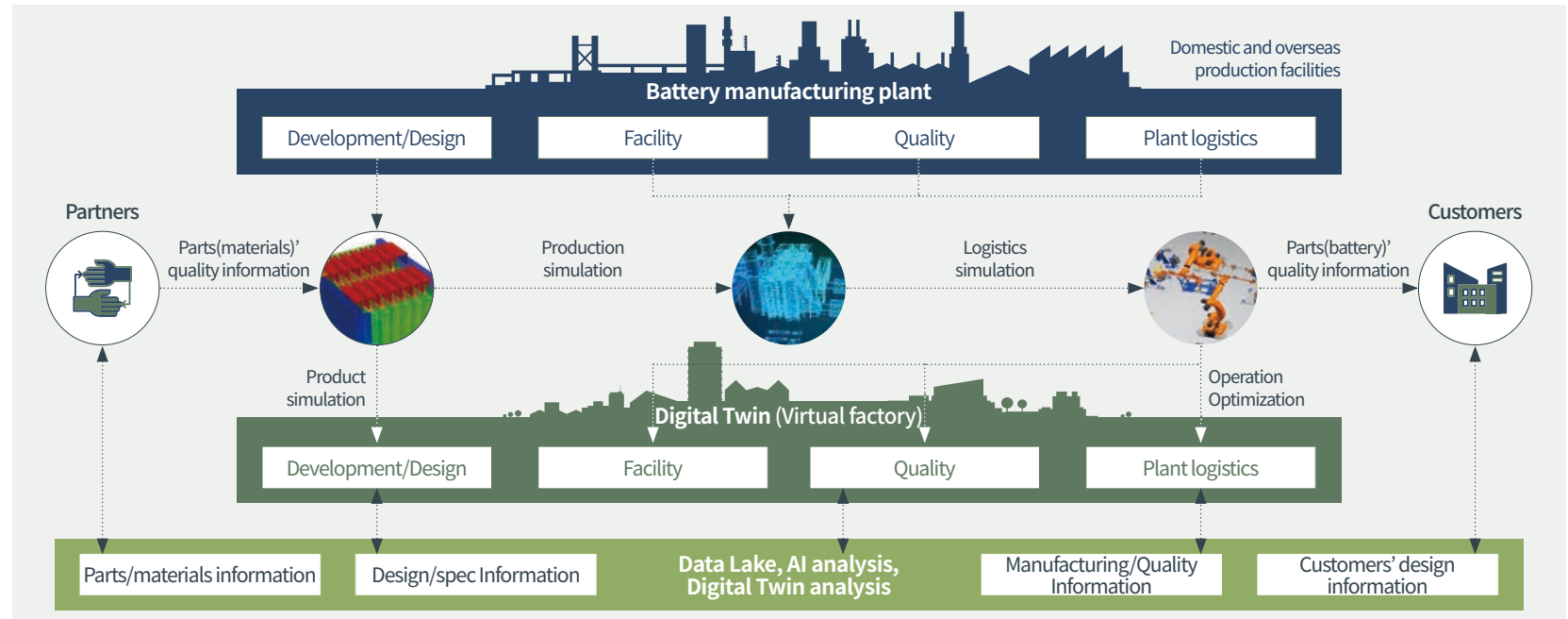
Country	Unit	2020	2021	2022
Korea	cases	5,070	5,231	5,782
US	cases	4,022	3,976	4,107
China	cases	2,038	2,042	2,326
Japan	cases	1,410	1,336	1,435
Europe	cases	4,113	4,410	4,743
Others	cases	983	740	804
<b>Total</b>	cases	<b>17,636</b>	<b>17,735</b>	<b>19,197</b>

# Business Overview

## Advancing the smart factory initiative

Samsung SDI has consistently advanced the smart factory initiative to leverage automation systems in boosting our manufacturing competitiveness by improving our production efficiency and product quality. The Manufacturing Execution System (MES) brings dramatic improvements for large, high-speed data processing. We developed the next-generation MES optimized for EV battery production, and have rolled out this system across our entire global operations starting with new locations in 2022. We also expanded factory logistics throughout the entire process ranging from the raw material warehouse to shopfloor and the finished goods warehouse and are advancing ATS (Automated Transfer System) functionality to improve transfer efficiency. We ultimately aim for unmanned plant operations. With this goal in mind, we equipped all our locations with a system to monitor production operations in real time to automatically control equipment so that worker-induced variation in the manufacturing

process does not affect product quality. Work is also underway to render our system functionality more intelligent to detect the operational status of equipment to predict their failure and take preventive maintenance measures. Going forward, Samsung SDI is implementing our intelligent smart factory strategy to improve the accuracy and speed of equipment control and quality analyses through AI-enabled big data analytics and to leverage digital twin technology for factory logistics forecasting and production optimization simulation throughout the entire lifecycle from raw materials to finished products. In line with the addition of new overseas locations to our global network, we provide immersive job training enabled by the application of VR/AR and work to establish a real-time remote collaboration system to help our shopfloor staff with capacity building. In so doing, we aim to establish smart factories optimized for battery production and continuously boost our manufacturing competitiveness in the process.





# SUSTAINABILITY MANAGEMENT

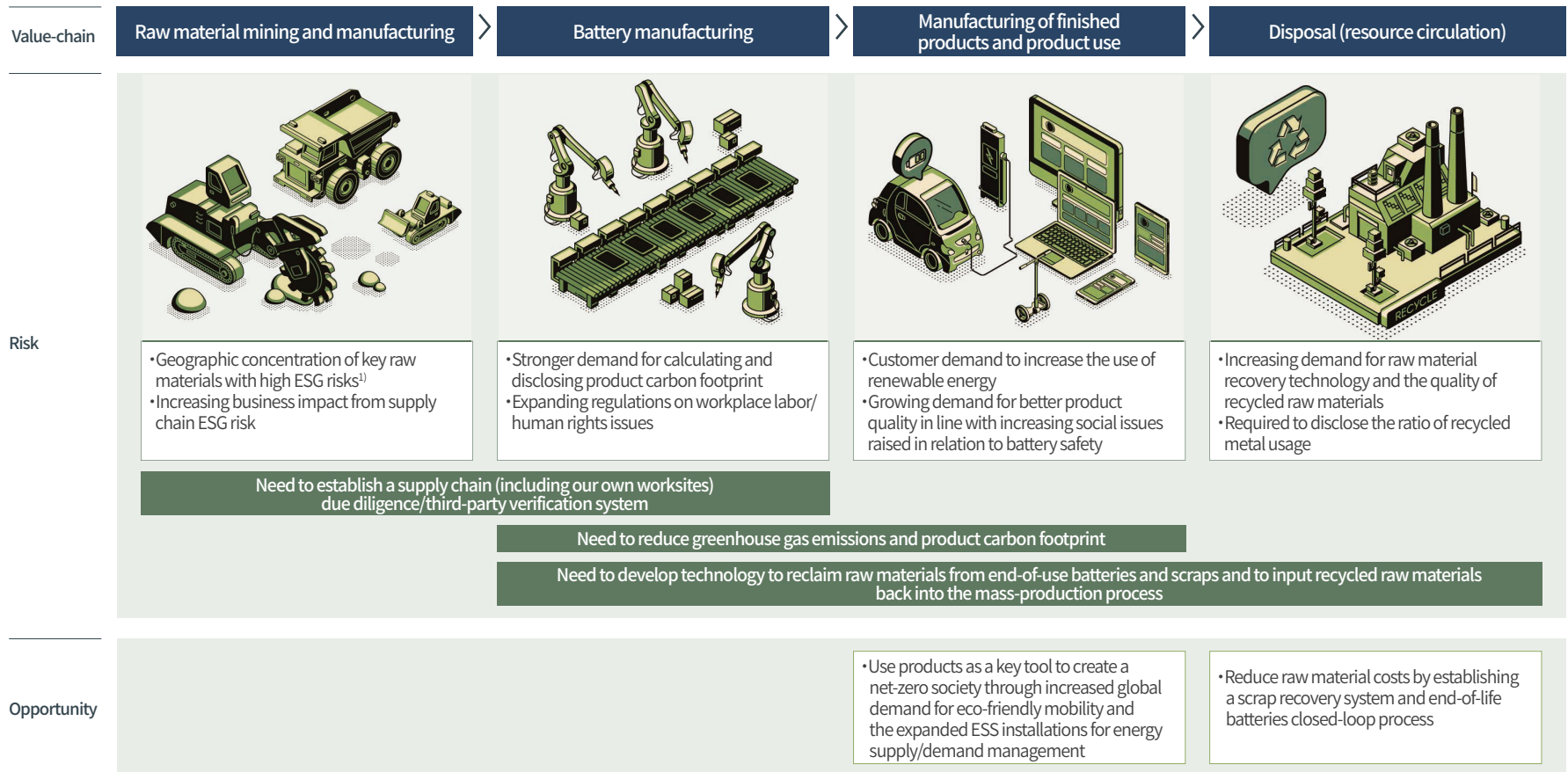
Sustainability Management Strategic Framework	17
Sustainability Management Operational Framework	19
Environment Management Implementation System	22
Risk Management System	24
Joining Global Initiatives	26



# Sustainability Management Strategic Framework

## Managing Our Value Chain from the ESG Viewpoint

Conducting rechargeable battery business is associated with a plethora of ESG issues across the entire value chain. This presents both opportunities to create eco-friendly value in the product use phase and non-financial risks that may occur in other phases of the value chain. To respond to such risks and opportunities, Samsung SDI establishes and implements its sustainability management strategy to consistently deliver greater value to internal and external stakeholders.



1) U.S. Geological Survey, 2022, Mineral commodity summaries 2022: U.S. Geological Survey

# Sustainability Management Strategic Framework

## Sustainability Management Strategic Framework

In March 2022, Samsung SDI established the vision of becoming a 'Super-gap ESG IMPACT Leader' and six focus areas(I, M, P, A, C, T) to secure sustainability leadership.



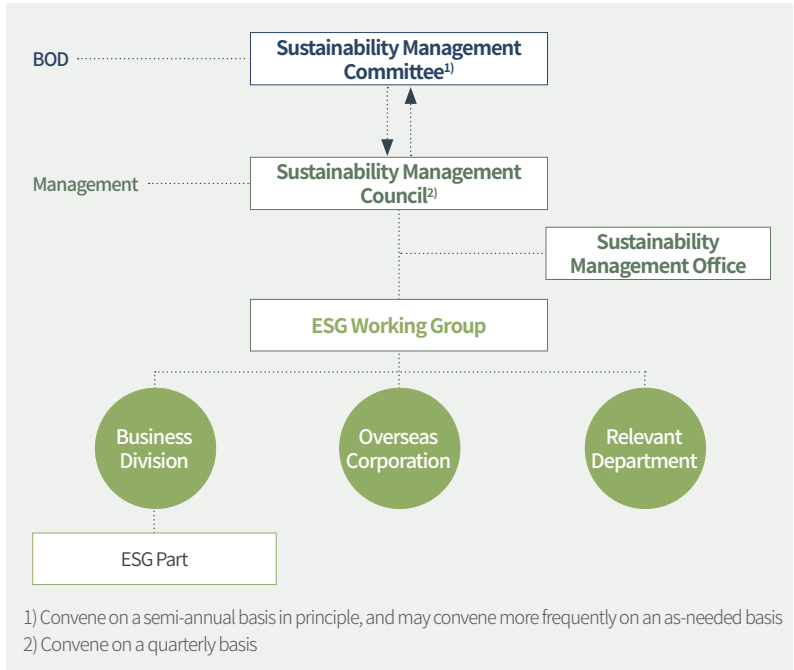


# Sustainability Management Operational Framework

## Sustainability Management Governance

Samsung SDI created the Sustainability Management Committee under the Board of Directors in January 2022, and Sustainability Management Office under the direct leadership of the Chief Financial Officer(CFO) in February to bolster our company-wide sustainability management governance. We also launched the Sustainability Management Council as a C-level consultative body led by the CEO to reinforce the role of top management. In early 2023, we created the ESG Part under the support team of each business division to disseminate ESG management at each level of the Company.

The Sustainability Management Office serves to support the operation of the Sustainability Management Committee and the Sustainability Management Council, and works closely with the ESG Part of respective business divisions, overseas corporations, and relevant departments to expand and bolster sustainability management across the board.



### Chair of the Sustainability Management Committee

Mee Kyung Lee



At the core of sustainability management lies 'sincerity', and the goal of sustainability management is to pursue 'sustainable prosperity'. This means that we not only reduce carbon emissions and protect the environment but also commit to innovation to simultaneously elevate social value and economic value. Samsung SDI defined a new vision in 2022 to emerge as a 'global top-tier company in 2030' and presented our key strategies to realize this vision that are anchored on ESG management along with 'Super-gap' technology competitiveness, the best quality, and profitable qualitative growth. Our sustainability reports drive our efforts to transparently communicate our performance to build trust with stakeholders while identifying potential risk and opportunity and reflecting them into our management strategy. We will go beyond merely abiding by external regulations for ESG management towards building a corporate culture that aligns the whole of the organization to achieving the Net Zero 2050 initiative, doing our part in advancing sustainability for the entire planet earth.

### CFO and Head of the Sustainability Management Office

Jong Sung Kim



ESG leadership is absolutely essential in achieving our company-wide 2030 vision 'to make the world greener and sustainable through our innovative technology'. Samsung SDI engaged in a wide spectrum of activities to bolster ESG management for the past year, and will continue with such activities in the years ahead. In the Environmental area, we joined the RE100 to contribute to the global commitment to combat the climate crisis, and are stepping forward with our project undertakings to maximize the impact of our efforts for GHG emissions reduction and resource circularity. In the Social area, we are working to promote the safety and human rights of our employees, establish a culture of diversity and inclusion, ensure ESG management for partners, and perform supply chain due diligence, fulfilling our corporate social responsibility in so doing. In the Governance area, we continue to advance our Board of Directors by improving its diversity, expertise, and independence while bolstering ethics and compliance management. As the head of the Sustainability Management Office, I will do my utmost to make ESG management a key factor for Samsung SDI's unrivaled competitiveness.

# Sustainability Management Operational Framework

## Activities of the Sustainability Management Committee in 2022

Date	Agenda
Apr. 26, 2022	<ul style="list-style-type: none"> <li>•Appointing the Chair of the Sustainability Management Committee</li> <li>•Reporting the sustainability management action plan for 2022</li> <li>- Establishing ESG strategy, aligning the sustainability management implementation system, increasing recycling, etc.</li> <li>•Reporting the sustainability report publication plan in 2022</li> <li>•Reporting IR trends</li> <li>- Share prices, shareholder status, key investor interests, etc.</li> </ul>
Jul. 4, 2022	<ul style="list-style-type: none"> <li>•Joining the UN Global Compact</li> </ul>
Jul. 28, 2022	<ul style="list-style-type: none"> <li>•Reporting the result of sustainability report publication</li> <li>•Reporting the progress made in preparation to join the RE100</li> <li>- Renewable energy transition goal, net zero status of customers, etc.</li> <li>•Reporting IR trends</li> <li>- Share prices, key investor interests, etc.</li> </ul>
Sep. 8, 2022	<ul style="list-style-type: none"> <li>•Joining the RE100</li> <li>- Simulating the attainment of the RE100 goals, worksite-specific RE100 goals, etc.</li> <li>•Reporting strategic tasks for environmental management</li> <li>- Goals and plans for each of the environment management eight tasks</li> </ul>
Oct. 25, 2022	<ul style="list-style-type: none"> <li>•Reporting UNGC-related action plans</li> <li>- Top management's public endorsement, ESG due diligence on worksites and supply chains</li> <li>•Reporting the key achievements of ESG management in 2022</li> <li>- Joining the RE100, committing to environmental management, conducting supply chain due diligence, etc.</li> <li>•Reporting IR trends</li> <li>- Share prices, key investor interests, etc.</li> </ul>

## Activities of the Sustainability Management Council in 2022

Date	Agenda
Apr. 13, 2022	<ul style="list-style-type: none"> <li>•Mid/long-term sustainability management strategy</li> <li>•Sustainability management action plan for 2022</li> </ul>
Jul. 13, 2022	<ul style="list-style-type: none"> <li>•Impact of EU's environmental regulations on battery business</li> <li>•Progress made by the environmental management taskforce team</li> <li>•Publication of the sustainability report</li> </ul>
Oct. 13, 2022	<ul style="list-style-type: none"> <li>•ESG management lectures provided by external lecturers</li> <li>•Sustainability management performance in 2022 and key sustainability management plans for 2023</li> <li>•Progress made by the environmental management taskforce team</li> </ul>



# Sustainability Management Operational Framework

## Incorporation of ESG Performance in Executives and Organizations Assessment

We have assessed ESG performance on all our executives since 2022 to effectively manage our ESG management performance and reinforce the top management's responsibility. In setting individual MBOs for executives at the beginning of each year, ESG Index is included in their KPIs, and their ESG performance is incorporated in the year-end executive performance appraisal outcomes, which are aligned with top management remuneration accordingly. In order to elevate ESG executive capabilities by business unit, we are also preparing to share ESG goals, measure and assess ESG performance by organization, and plan to assess and align the with financial incentives.



## Company-wide ESG Training

Samsung SDI provided online training twice in 2022 to domestic employees and expatriates at overseas corporations on importance of ESG management and Samsung SDI's mid/long-term strategy for ESG management. This training was completed by 6,310 employees out of 6,658 and by 6,281 employees out of 6,563 in the first and second half respectively. This served to raise their understanding of ESG management and build company-wide consensus on Samsung SDI's ESG management. We plan to make efforts to raise employees' awareness of ESG management in various ways.

### Samsung SDI ESG Training

Date	Training Content
First half of 2022	<ul style="list-style-type: none"> <li>• Basic ESG training                             <ul style="list-style-type: none"> <li>- Meaning and origin of ESG management</li> <li>- Necessity of ESG management</li> </ul> </li> </ul>
Second half of 2022	<ul style="list-style-type: none"> <li>• Samsung SDI's mid/long-term strategy for ESG management                             <ul style="list-style-type: none"> <li>- External ESG environment</li> <li>- SDI's mid/long-term ESG strategy: Vision, strategic approach, focus areas, operational system</li> <li>- SDI's ESG management implementation task: Action for climate crisis, Circular economy, SCM risk management, Labor/human rights, Togetherness with community, Advanced BOD</li> </ul> </li> </ul>

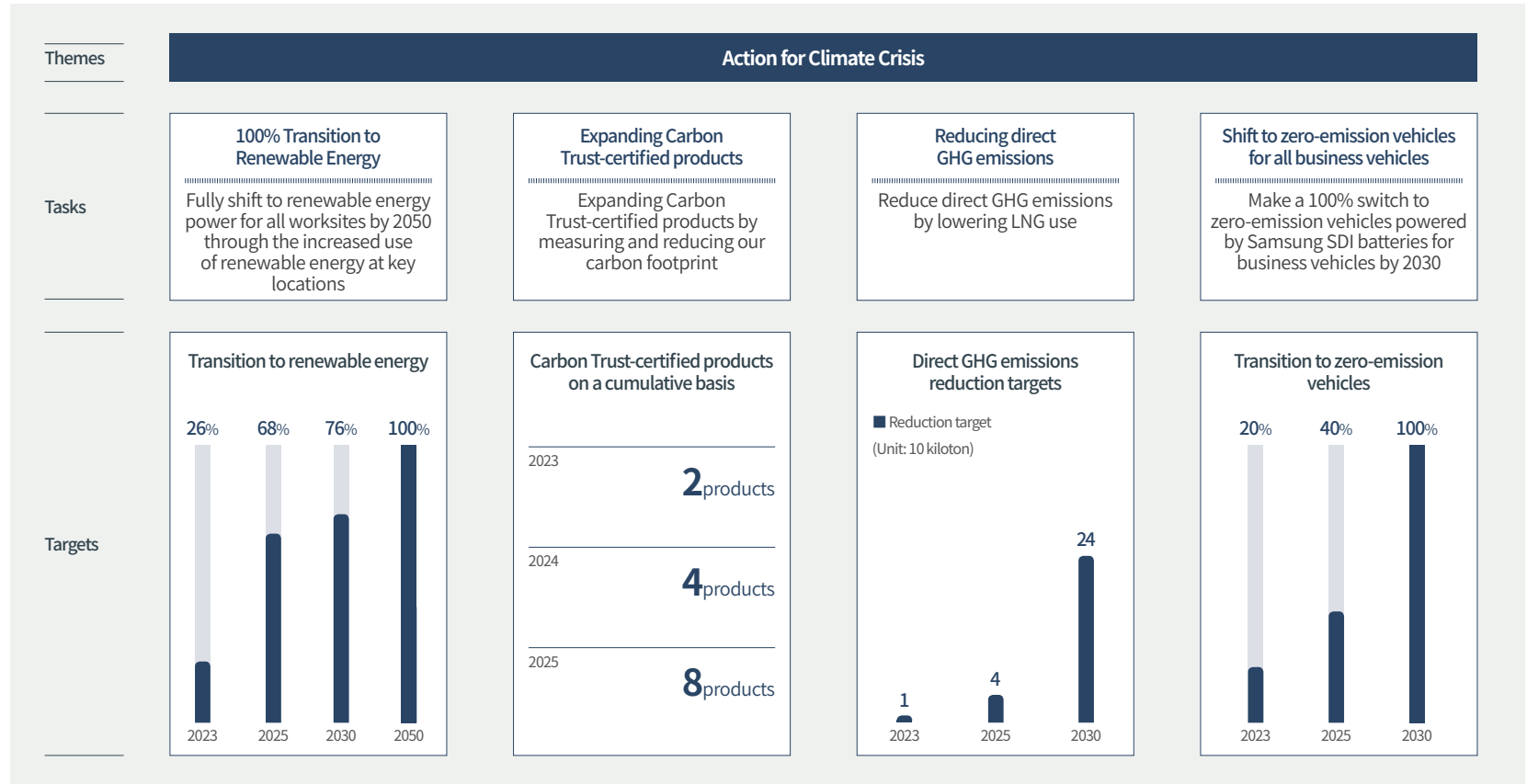


# Environment Management Implementation System

## Promotion of Environment Management Strategy

To recognize the severity of climate change and the environmental crisis and join in on the concerted efforts to rise to such challenges, we launched a company-wide environmental management taskforce in January 2022. We also publicly committed to environmentally friendly management to implement strategic tasks for environmental management while joining the RE100 in October 2022. We are undertaking eight strategic tasks under the two overarching themes of ‘climate change adaptation’ and ‘resource circularity’, and review progress made for each task on a quarterly basis through the Sustainability Management Council supervised by the CEO. Tasks under Action for Climate Crisis include fully transitioning to renewable energy, expanding products certified to carbon footprint standards, reducing direct GHG emissions, and switching to zero-emission vehicles for our entire corporate fleet vehicles.

### Samsung SDI’s Strategic Task for Action for Climate Crisis

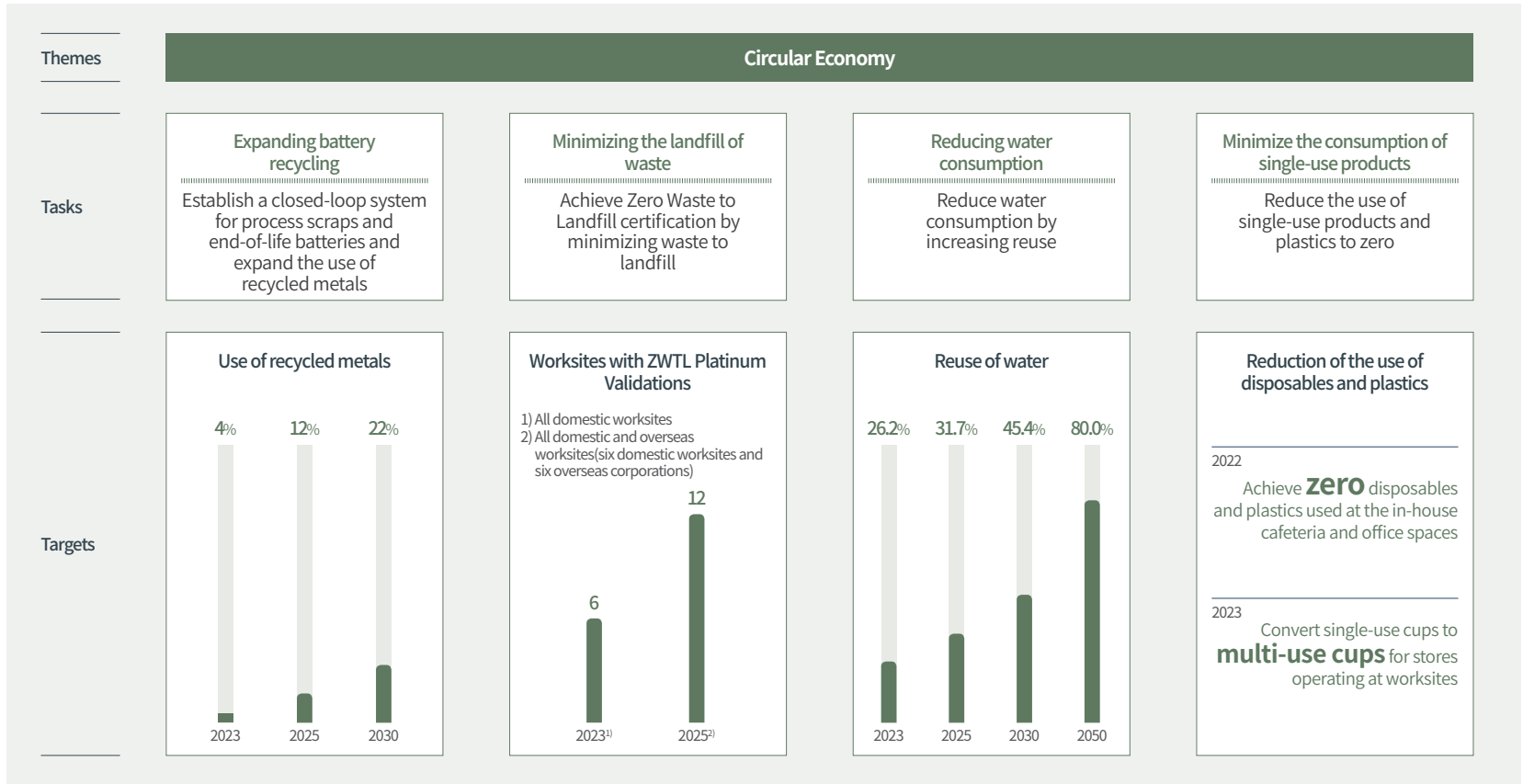


# Environment Management Implementation System

## Promotion of Environment Management Strategy

Under the resource circularity theme, we are working to expand the recovery of resources through battery recycling, minimize waste to landfill, reduce water consumption through increased water reuse, and minimizing the use of disposables. Such activities to maximize resource circularity will help us establish an eco-friendly ecosystem.

### Samsung SDI's Strategic Task for Circular Economy

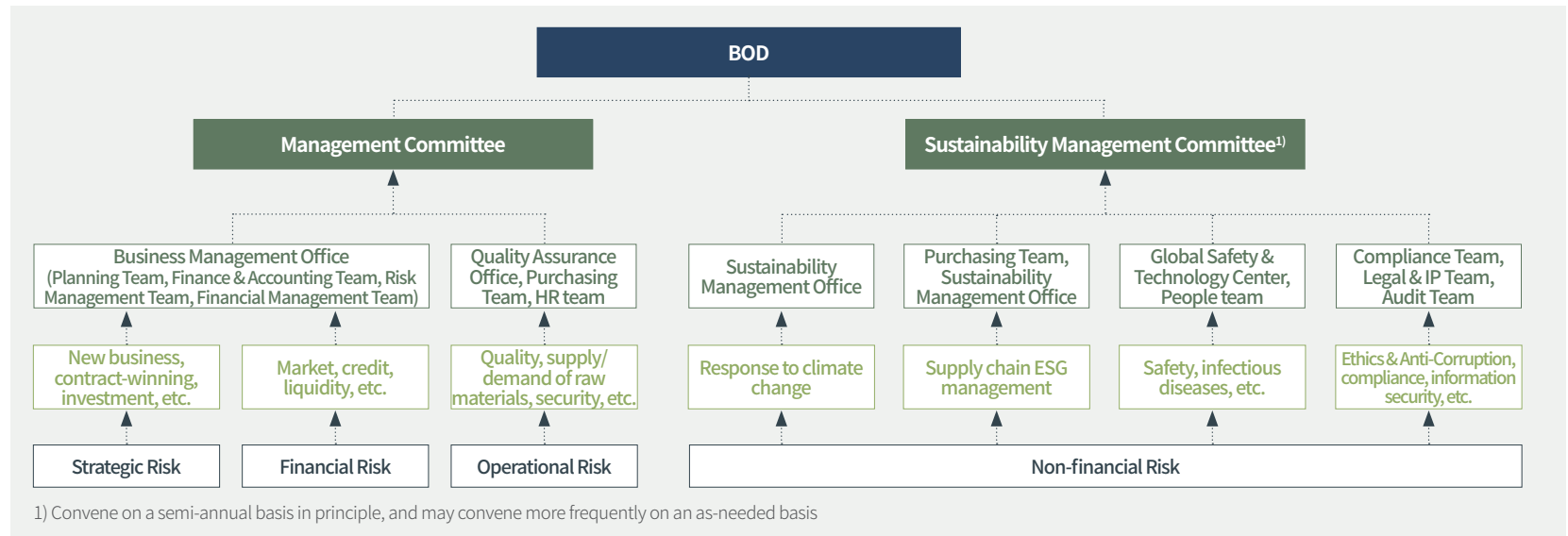


# Risk Management System

## Company-wide Risk Management System

Samsung SDI's Board of Directors comprehensively manages a range of risk that may occur in the business environment concerning operations, finance, and workplace safety, and makes major decisions. We established an internal control system for systemic risk management to specify area-specific risk policies and potential risk categories. Responsible departments engage in preemptive management and regular assessment for respective risks, and the results and response strategies are eventually reported to the Board of Directors either through the Management Committee or the Sustainability Management Committee. Our key business has changed in its nature to win large-scale project orders and supply our products over extended periods of time, and it is increasingly paramount that we manage potential risks in the order-landing and supply phases. This prompted us to create and operate the Risk Management Team as a dedicated organization for the systemic management of project-related risks. Our risk management function for respective business divisions is structurally independent of business departments and is operated as such.

In addition, we build company-wide consensus on our key risks to create a culture of risk management at all levels so that our employees identify and preemptively respond to risk in their own working environment. Risk factors associated with product safety & quality, injuries, and compliance are incorporated in executive and manager performance appraisal metrics, and appraisal outcomes are reflected in determining their compensation. Employees, who immediately report quality risk that may arise throughout our entire operations spanning manufacturing, purchasing, and sales, are recognized with the Quality Hero award to encourage proactive risk identification and reporting. We has operated the S-Partner system to monitor and manage ESG risks that may occur in the supply chain, and to provide a safe workplace, our system allows employees to immediately report potential risk factors that may give rise to injuries. For compliance risk, our Compliance Program Management System (CPMS) assists employees in obtaining information on risk prevention themselves and submit their whistleblowing reports for work-related compliance issues.





# Risk Management System

## Key Risk Impact and Our Response

Risk	Definition and Description	Business Impact	Our Response
<b>Disruptions in the supply/demand of key raw materials</b>	<ul style="list-style-type: none"> <li>A surge in demand for products/services – EV, ESS, etc. - that contribute to Net-Zero society may trigger increases in raw material prices</li> <li>Competition is accelerating in supply/ demand as the reserve of mineral resources is concentrated in specific geographies and such resources are supplied by a handful of companies</li> </ul>	<ul style="list-style-type: none"> <li>Rising raw material prices and intensifying competition in supply/demand of raw materials give rise to increasing battery manufacturing costs, and this may impact our financial performance. When such risks are present for long time, this may lead to price increases for EVs and others and dampen demand on the end user side</li> </ul>	<ul style="list-style-type: none"> <li>Secure raw materials in the mid/long-term through J/V with key raw material partners, equity investment, LTA and other diverse means</li> <li>Recycle key metals reclaimed from end-of-life batteries in collaboration with partners who possess top-notch battery recycling technology</li> </ul>
<b>Supply chain risk associated with the IRA (Inflation Reduction Act) of the US</b>	<ul style="list-style-type: none"> <li>The IRA took effect, stipulating that tax breaks are available for EVs that meet a set proportion of battery components and critical minerals coming from the US or countries which signed an FTA with the US</li> <li>In particular, EVs that containing just a portion of critical minerals or materials sourced from China and other ‘countries of concern’ do not qualify for subsidies and tax breaks</li> </ul>	<ul style="list-style-type: none"> <li>We need to significantly increase the proportion of battery components manufactured in North America for our battery products to be sold in the US (100% in 2029 and afterwards) and the proportion of critical minerals sourced in the US or countries with an FTA with the US or recycled in North America (80% in 2027 and afterwards)</li> <li>Currently, our supply chains include Chinese partners, and it is urgent to diversify our supply chains for graphite whose global supply is mostly dependent on China</li> <li>Failure to comply with the above requirements may lead to serious damage to our orders and sales</li> </ul>	<ul style="list-style-type: none"> <li>We will meet the requirements concerning the proportion of battery components by establishing battery plants in the US and encouraging our key partners to enter the North American market</li> <li>As to critical minerals, work is underway to develop and implement detailed plans to diversify our sourcing across North America and US’ FTA partners while reducing our reliance on China</li> </ul>
<b>Demand for increasing recycled content for battery production</b>	<ul style="list-style-type: none"> <li>Critical minerals – lithium, cobalt, nickel, and graphite – that are consumed as battery raw materials are resources that can’t be extracted indefinitely and are giving rise to water pollution, soil contamination, GHG emissions, and other environmental issues in the extraction and refining process</li> <li>As such, the demand is growing to recycle key battery raw materials, and EU and other countries are tightening their regulations</li> </ul>	<ul style="list-style-type: none"> <li>The proposed Batteries Regulation of the EU regulates the minimum levels of recovered nickel, cobalt, lithium, and other critical minerals used for battery production                             <ul style="list-style-type: none"> <li>* 96 months after the Regulation comes into force: 16% for cobalt, 6% for lithium, 6% for nickel</li> <li>* 156 months after the Regulation comes into force: 26% for cobalt, 12% for lithium, 15% for nickel</li> </ul> </li> <li>To cater to global regulations governing resource circularity and stakeholder needs, customers strongly demand that battery companies increase the recycling of cobalt, nickel, lithium, and other key battery raw materials as a precondition in awarding orders</li> <li>Failure in abiding by the proposed EU Batteries Regulation and meeting customer demands for recycling will lead to decreases in orders and sales, which makes it imperative that we raise the recycled content of key battery raw materials</li> </ul>	<ul style="list-style-type: none"> <li>We are building a closed-loop system to reclaim cobalt, nickel, lithium and other raw materials from the scraps generated from the manufacturing process in partnership with external companies specializing in this specific field, and are expanding this system across our overseas operations</li> <li>To recover raw materials from end-of-life batteries that are disposed of, we will partner with customers to establish an end-of-life battery recovery system</li> </ul>

# Joining Global Initiatives

Samsung SDI voluntarily engages wide-ranging global initiatives to bolster sustainability management. This allows us to share ideas and take action on a host of topics, from renewable energy and social responsibility to battery value chain, conflict minerals and ecosystem protection. Going forward, Samsung SDI will cement our ESG leadership on par with global standards in the Environmental, Social, and Governance areas.

## • RE100 (Renewable Energy 100%)



Samsung SDI joined RE100 in October 2022 and committed to transitioning to full renewable energy by 2050. We aim to achieve RE100 at all overseas corporations by 2025, and at all domestic operations by 2050.

## • UNGC (United Nations Global Compact)



Samsung SDI joined the UN Global Compact to strengthen corporate social responsibility in July 2022, and enunciated the 10 UNGC principles in the areas of human rights, labor, environment, and anti-corruption.

## • GBA (Global Battery Alliance)



We joined the GBA that aims to establish sustainable battery value chains in March 2023. We will participate in the GBA's Battery Passport development efforts to thoroughly prepare for the battery passport which is expected to become mandatory.

## • CDP Supply Chain



Samsung SDI joined the CDP Supply Chain in March 2023. This allows us to establish a system to secure greenhouse gas emission information of value chain partners.

• Joined in 2022 and 2023

## • RMI (Responsible Minerals Initiative)



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

## • 'Cobalt for Development' Project



In September 2019, Samsung SDI 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, Samsung SDI 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.

• Joined in 2021 and before, and continue to engage



# SUSTAINABILITY MAIN THEMES

1. Infinite Safety	29
2. Move to Net-Zero	39
3. Partnership with Value-Chain Partners and Community	52
4. Accountability in Value-Chain	59
5. Credibility in Corporate Governance	71
6. Transparency in Stakeholder Engagement	81



## Key Figures



### Infinite Safety<sup>1)</sup>

Area	Indicator	Unit	2020	2021	2022
Occupational Health & Safety	Employee injuries(incident) (No. of employees injured/ No. of employees X 100)	%	0.014	0.021	0.007
	In-house partner injuries(incident) (No. of employees injured/ No. of employees X 100)	%	0.019	0.035	0
	Improvement tasks identified through workplace safety audits <sup>3)</sup>	cases	635	314	373



### Move to Net-Zero<sup>1)</sup>

Area	Indicator	Unit	2020	2021	2022
Action for Climate Crisis	Direct·indirect GHG emissions intensity	tCO <sub>2</sub> e/KRW 100 million (sales)	12.4	11.6	8.3
	Direct emissions	tCO <sub>2</sub> e	183,925	225,594	242,116*
	Indirect emissions	tCO <sub>2</sub> e	1,215,603	1,347,936	1,418,616**
Circular Economy and Environmental Impact Management	Use of recycled metals <sup>4)</sup>	%	-	2	2
	Waste recycling rate	%	82	92	93
	Water reuse rate <sup>4)</sup>	%	-	22.7	23.0

\* Saved 6,340 tCO<sub>2</sub>e by reducing LNG use

\*\* Reduced 88,900 tCO<sub>2</sub>e by purchasing renewable energy certificates



### Partnership with Value-Chain Partners and Community<sup>2)</sup>

Area	Indicator	Unit	2020	2021	2022
Value-Chain Partnership	Financial activity support <sup>5)</sup>	KRW 100 million	587	810	868
	Signing of the Fair Trade Agreement <sup>6)</sup>	No. of companies	110	111	112
Togetherness with Community	Participation in CSR activities <sup>7)</sup>	%	99.1	93.6	96.8
	CSR expenditures <sup>8)</sup>	KRW 100 million	67.7	87.4	89.2



### Accountability in Value-Chain

Area	Indicator	Unit	2020	2021	2022
SCM Risk Management <sup>1)</sup>	Certified S-Partners	No. of companies	55	75	72
	Third-party audits on cobalt smelters and refiners <sup>9)</sup>	%	92	96	96
Labor/Human Rights <sup>2)</sup>	Employee grievances submitted <sup>10)</sup>	cases	1,193	1,245	1,402
	Female managers	%	11.2	12.0	13.0



### Credibility in Corporate Governance

Area	Indicator	Unit	2020	2021	2022
Advanced BOD <sup>2)</sup>	Ratio of independent directors	%	57.1	57.1	57.1
	Ratio of female directors	%	14.3	14.3	14.3
	Average attendance in BOD meetings	%	93.5	93.7	100
Ethics & Compliance	Employees who completed ethics & compliance training <sup>2)</sup>	No. of persons	12,063	12,598	12,547
	Disciplinary actions taken for corruption identified through audits <sup>11)</sup>	No. of persons	13	1	4
	Partners whose contract was terminated in relation to corruption <sup>2)</sup>	No. of companies	0	0	0
	Compliance review activities <sup>2)</sup>	cases	22	26	22

1) Scope of the Index: Domestic and overseas production facilities

2) Scope of the Index: Korea

3) Reviews scaled down amid COVID-19

4) Calculated since 2021

5) Sum of direct support, the win-win fund raised, and special support

6) Based on the shared growth agreement signed between Samsung SDI and first-tier partners

7) Calculated including participation in volunteer activities, donations in cash and in kind made by employees at the headquarter

8) Sum of management costs and cash costs(donations). Data restatements were made for 2020 and 2021 due to change in calculation formula

9) Smelters and refiners participating in third-party audit programs are included

10) Grievance handling rate is 100%

11) Data changed for 2020 and 2021 due to the addition of overseas corporations to the scope



# 1. INFINITE SAFETY

## Occupational Health & Safety

Appointed the Chief Safety Officer

Created VR safety training rooms

Established a mobile safety system(M-EHS)

## Product Safety

Introduced big data and AI analytics techniques for the quality analysis system

Secured thermal propagation prevention technology

## 2022 KEY ACHIEVEMENTS

# Occupational Health & Safety

## Our Approach and Management Plan

In response to the Serious Accidents Punishment Act which took effect on January 27, 2022, Samsung SDI bolsters our safety accident prevention system to reduce all injuries and accidents occurring in the workplace to zero. We ensure our executives take full responsibility in this regard: responsible executives are appointed in performing on-site reviews and making necessary improvements. Efforts are also made on an on-going basis at all levels to reinforce our health and safety management system, including but not limited to monitoring blind spots that go unnoticed across manufacturing operations, preventive consulting for the Serious Accidents Punishment Act, and special training for risk assessment personnel. Furthermore, we engage in continuous communication and improvement for the safety of our partners. We operate the health and safety council between contractors and subcontractors and establish the mobile G-EHS system to guarantee the right to suspend work, provide safety training, and engage in TBM (Tool Box Meeting) registration and verification.

### Health and safety goal

**Zero** injuries and accidents<sup>1)</sup> every year

### Reinforcing the Board's responsibility for health and safety

Every April, our Board of Directors meets to regularly receive reports on general business management, finance, and other operational issues, which includes 'reporting health and safety plans' as matters submitted for consideration pursuant to Article 12, Clause 2, Paragraph 20 of the Regulations for the Operation of the BOD. This mandates our Board to review our health and safety policy, its organizational composition and role, key activities of the occupational health and safety committee and the partner council, budget and facility status, and performance for the past year and plans for this year.

1) Criteria: All forms of incidents that damage the body/life of people from simple injuries that result in lost workdays to fatal accidents. Scope: SDI employees, employees of on-site partners, and employees of all partners working at Samsung SDI's operations

### Appointing a C-level executive for safety operations

In February 2022, Samsung SDI appointed the Chief Safety Officer. The CSO represents the Company in relation to health and safety operations, and has the authority and responsibility for heading our EHS organization, personnel, and budget while serving as the final decision-maker in this regard. The CSO also engages in overall command and oversight concerning work suspension and subcontracting.

### Dedicated EHS organization

The increasing social demand for rigorous safety management prompted us to establish a dedicated EHS organization and realign our organization to create personnel and support functions. The EHS & Infra Team under the Global Safety & Technology Center was split into the Global EHS Team and the Global Construction/Infra Team to serve as a specialized unit in their respective area. With the Global EHS Team leading the charge, Safety and Environment Groups from respective worksites work together to further boost communications to keep our employees and partners safe from accidents and raise our safety awareness.

### Safety Management Organizational Chart



## INTERVIEW

**Deokyeong Lee**, Professional,  
Safety & Environment Group, Global EHS Team

### Q Is there any change in awareness on safety culture among Samsung SDI employees?

At Samsung SDI, awareness is improving on safety culture, and in fact, a safety culture assessment conducted on employees showed that our score rose by nearly 10% from the previous year. The assessment covered a total of eight categories, and significant improvements were made in the categories of 'top management's commitment and investment' and 'risk factor identification and emergency exercise'. This indicates that our employees recognize senior management is prioritizing safety and environment and is making ample investments in this regard. I will fulfill my responsibility for safety and environment to bring positive change in employees' perceptions on safety culture.

### Q What are the key achievements made in the safety management aspect in 2022?

Our health and safety management activities were reinforced at all areas. Major activities include executives taking responsibility for health and safety operations, monitoring of blind spots on the manufacturing floor, consulting to prepare for the Serious Accidents Punishment Act, specialized risk assessment training, and VR safety training center operation. This resulted in year-on-year decreases in injuries and accidents affecting our employees and in-house partners.

### Q What are the areas that we should reinforce to embed safety culture into our operations?

To embed safety culture into our day-to-day routine, we will first reinforce communication with our shopfloor operations. Secondly, we will praise best practices and offer appropriate rewards, and thirdly, we will expand activities that directly engage our employees. Under our 'Safety Talk' program, responsible executives will visit the manufacturing floor to collect feedback from workers and make improvements while selecting and awarding best practices for accident prevention to raise safety mindset among employees. We will also promote our health and safety activities through TBM contests and health and safety bulletin boards.

# Occupational Health & 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 2022, we provided risk assessment personnel at our domestic operations with professional risk assessment training to elevate their risk assessment performance to identify and improve hazard/risk factors in the work environment. This training consisted of theory and practice to allow participants to learn risk assessment methodologies and prepare assessment reports on real-life cases, further improving their assessment capabilities as a result.

### Disseminating a safety culture

Each year, Samsung SDI performs safety culture assessments on employees. Currently, our employees are in the phase of voluntary participation, and we are working to bolster field-driven safety culture management to move onto the next phase where employees encourage and respect each other. A case in point is our senior management taking responsibility for on-site safety management by visiting our worksites. They identify inconsistencies and communicate with employees to ensure workplace safety, this in turn drives our employees to change their perceptions on safety. We will pursue a wide array of activities to create a field-centered safety culture that engages all employees with leaders taking the lead. This extends beyond our own operations and we continue to team up with our employee families and communities where we operate to disseminate our advanced safety culture.

### Providing VR safety training experience

To encourage our employees to participate and take interest in safety training and maximize the benefits of such training, we have created VR safety training rooms across six domestic and six overseas worksites since October 2022 to provide them with an opportunity to experience VR-assisted safety training. The participants need to wear Oculus goggles and may choose either experience-based training to virtually experience safety accidents or viewing-based training to watch training videos. Such training will be conducted on a semi-annual basis, and new content is being produced. This new mode of safety training will surely increase engagement and satisfaction on the part of employees to prevent safety incidents and regulatory non-compliance in the real-life work environment.

#### VR safety training content

Type	Content
Experience	① Cell on fire/smoking, ② Being jammed in the lift, ③ Being jammed in the roller, ④ Fall from height, ⑤ Collision with the forklift
Viewing	① Handling battery, ② Handling chemicals, ③ Handling heavy objects



VR safety training rooms

## Workplace Safety Management

### Establishing and amending the EHS procedures

To elevate employees' safety awareness and executive capabilities, we amended our company-wide regulations and worksite standards that serve as our EHS procedures. With the help of our Legal & IP Team and a third-party law firm, 28 such regulations and 40 standards were verified to prevent the omission of amended regulatory provisions and detailed procedures. Based on review results, 25 company-wide regulations and 20 worksite-specific standards were amended and were publicly registered at our internal standard regulation management system (PMM) for all employees to access.

### 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 54 modules across the eight categories of safety and environment, health, chemicals, disease prevention, partner companies, audit and common areas. To manage VR safety training and on-site safety management led by executives introduced in 2022, seven modules were added to the system. Our EHS system is operated in accordance with such international standards as ISO 14001 and ISO 45001, and all our domestic and overseas operations received surveillance audits in October 2022 to maintain their certification as verified by the certification body.

### Reinforcing our shop floor safety certification

To keep our shop floor employees safe, Samsung SDI implements the manufacturing work certification program. This ensures that in performing work involving the direct operation of shopfloor equipment, only those workers who completed relevant job training in advance could take error correction measures. This program is classified into three to four grades depending on the worksite, and employees who worked for the set period of time become eligible for taking paper and practice skill tests and should score 80 points or more to pass the test.



## Occupational Health & Safety

In the L1 entry grade, employees need to work for the 3-month OJT period in line with the relevant SOP before taking the test. In L2, employees engage in basic work including replacing materials and consumables, cleaning, and equipment check. As this program is designed to gradually elevate the performance level of employees, employees in grades beyond L2 move onto work requiring advanced skills, including taking action for defects and quality issues.

### Expanding the performance appraisal for manufacturing management supervisors

Our management supervisors, who are responsible for shopfloor safety, are regularly assessed for their EHS competency to provide a safe work environment free from any injuries and/or accidents. These supervisors receive EHS assessments on 34 items across four categories. In 2022, such assessments were made six times in total (twice for each of the Ulsan, Gumi, and Cheongju worksites). While our Cheonan worksite did not receive assessment due to the spread of COVID-19 within its operations, regular ESH assessment resumed in January 2023 in line with the relaxed COVID-19 lockdowns.

#### 4 Evaluation Areas of EHS Management



### Building an emergency response system

Each of our domestic and overseas worksites implements emergency response management regulations to establish a standardized response system to brace for any emergency. Scenarios are produced under 13 emergency situations (fires, explosions, earthquakes), and company-wide exercises are held at least once a year and internal ESH drills are conducted at least once a month. Our in-house firefighting units are under operation 24/7 in case of an emergency.

## Workplace Safety Risk Assessment

### Improving potential process-related risks

Samsung SDI consistently identifies and improves 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. In 2022, a total of 261,689 potential process-related risks were identified by our manufacturing workforce at all levels, and this translates into 31.1 risks per employee, which exceeded the set target (12 risks per employees) by 259.2%.

Since January 2023, best practices have been posted on the Safety Culture bulletin board to further elevate the quality of improvements made and prevent similar accidents from occurring.

### Workplace risk assessment

We perform risk assessment across our domestic and overseas operations as part of our self-initiated preventive system to identify and improve work-related hazard/risk factors on employees' own initiative. Annual regular risk assessments are made on the entire processes and tasks and the results are registered on our computer system for all employees to access. Improvement tasks are also registered to eliminate the hazard/risk factors identified to track improvement results.

In addition, risk assessments are conducted on an as-needed basis for change management when machinery, equipment, raw materials, or chemicals are newly introduced or modified to preemptively assess potential risk from such change and prevent the risk of accidents occurring.

## Supply Chain Safety Management

### Assessing partners for safety performance

To prevent occupational injuries that may arise in subcontracting, we have continued to perform safety assessments on our partner companies since 2020. Such assessments are made for work performed in locations controlled, operated, or managed by Samsung SDI. For partner companies permanently operating at our domestic worksites, they received safety assessments twice in the first and second half of the year respectively, and new construction partners were assessed before bidding for a contract. In 2022, a total of 199 safety performance assessments were made, and six of construction partner companies failed to meet the safety criteria set by Samsung SDI and could not bid for any contract. In 2023, we will establish the Partner-EHS system to allow partner companies to directly register their safety self-assessment results and Samsung SDI to check such results, laying the foundation for web-based communication with partner companies.

### Health and safety grievance handling mechanism for partners

Samsung SDI heeds the voice of partner employees and makes necessary improvements through wide-ranging communication channels such as the occupational health and safety committee and the health and safety council between contractors and subcontractors. In 2022, 30 grievances were submitted to the occupational health and safety committee and 29 grievances to the health and safety council across our domestic operations, and improvement measures were taken for all of these grievances. In July 2022, we established the M-EHS as our mobile safety system to facilitate communication on construction safety. As of the end of 2022, nearly 12,000 people joined the M-EHS, and all construction workers accessing Samsung SDI's worksites can use the system to check the work permit of their company, apply for individual safety training, and make registrations and verifications on their emergency contact list, right to suspend work, and TBM (Tool Box Meeting). Specifically, we continue with TBMs prior to starting work for their benefits in maximizing the prevention of injuries in a short period of time, recognizing risk and proper work methods, learning emergency response measures, and building consensus among co-workers.



# Occupational Health & 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.

### Operating the internally regulated substances grading and approval system

The scope of our internally regulated substances includes carcinogens, reprotoxic chemicals and other substances harmful to the human body as well as legally regulated substances. We prioritize highly toxic substances ((SVHCs, CMR, PAHs) based on their hazards and manage them accordingly to keep our employees safe and protect them from work-related illnesses. In accordance with our internal substances grading and approval system, internally regulated substances 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. 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) as well as the installation of warning signs.

### Grading and Approval of Internally Regulated Substances<sup>1)</sup>



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

### Managing in-process hazards

In the event of change in the production process or the addition of new materials in the early phase of new R&D project undertakings, ad-hoc measurements are made on hazards to safeguard the health and safety of our employees. In particular, we commission third-party professional organizations to perform semi-annual work environment measurements on processes that handle hazards. Here, we apply internal standards that are more stringent than legal standards to hazards, exposure to substances requiring special management, and ventilation facilities. For carcinogenic, reprotoxic or mutagenic substances that require special management, we apply our internal standards that are below 10% of the legal threshold. In case there are processes that exceed our internally-set exposure limits, continuous process improvements are made by sealing affected equipment or even by replacing and/or mitigating chemicals. In addition, local exhaust and ventilation devices receive inspections and assessments at least once a year to keep our employee safe from the exposure to chemical substances.

## Employee Healthcare

### Health promotion activities

To promote healthcare and disease prevention for our employees, we provide regular health check-ups, work environment measurements, health promotion activities, and workplace hygiene management. While these health promotion activities were implemented at the individual worksite level, they have been scaled to the company-wide level for standardization and systemic operation since 2023.

We developed health promotion plans for 2023 in collaboration with the People Team and the Mental Health Secretariat. We also motivate employees diagnosed with specific medical conditions and/or obesity to care for their health through healthcare apps, and publish monthly health newsletters to draw their attention to healthcare. We reviewed comprehensive check-up items for their adequacy to support early disease detection and accuracy improvement, and perform due diligence on health check-up centers to provide our employees with high-quality medical services.

### Preventing work-related illnesses

To prevent musculoskeletal diseases and alleviate employees' work burden, we conduct regular on-site investigations and surveys on the entire operations. We also change work methods based on additional close examinations and analyses to improve our work environment. In 2023, we will expand the network of our Medifit centers operated for disease prevention from two (Cheonan, Gumi) to all our six worksites in Korea.

# Product Safety

## Our Approach and Management Plan

Samsung SDI puts product safety and quality before all else. Guided by our motto 'All for nothing without quality', we continue to bolster our quality management system along the entire product lifecycle to raise our employees' quality-first mindset at all levels. We advance rigorous verification from development all the way to mass-production, and keep our data-based monitoring system up and running to upgrade our preliminary risk verification system.

As we believe that the quality of our partners directly translates into the quality of our products, we focus on disseminating Samsung SDI's quality-first mindset to ensure exceptional quality across the board while engaging in activities to improve the product quality of our partners.

To elevate customer satisfaction, we realigned our VOC (Voice of Customers) collection and analysis system to make necessary improvements in a more swift and accurate manner.

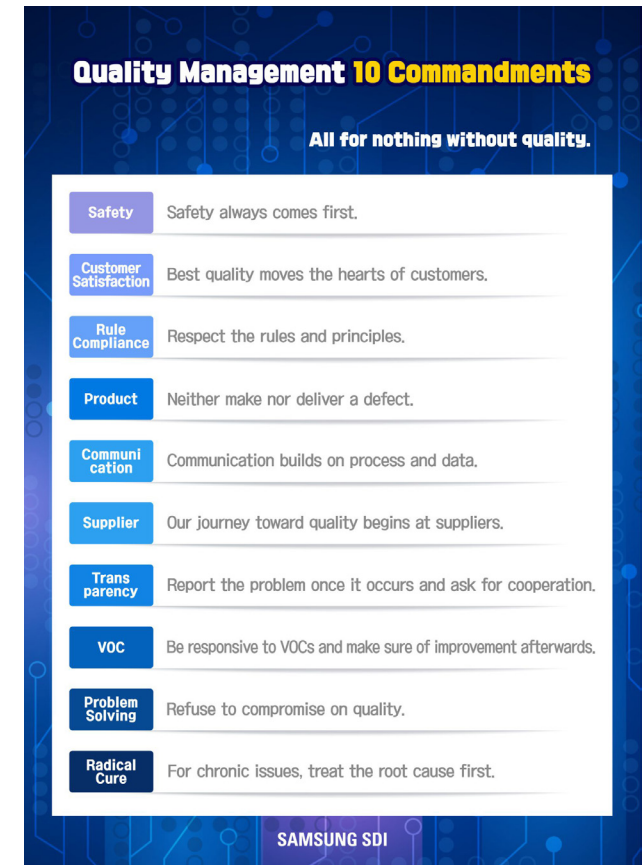
Our Electronic Materials Business launched its PQ (Partner Quality) Part to identify pre-detection tools that help avoid escaped defects and ensure the tailor-made management of polarizing film partners. As a result, the number of quality-related VOCs raised by customers has been on the decline.

### Quality management system

We operate our quality management system in compliance with such global standards as ISO 9001 and IATF 16949 throughout the entire process from product design and manufacturing to shipment and customer satisfaction, and perform internal reviews on our entire global operations. Since we achieved IATF 16949 certification, we have received regular surveillance audits performed by third-party organizations.

### Quality management principle

To secure best-in-class quality on the back of top-tier technology, it is essential that all employees are aligned towards the quality first principle. This is why Samsung SDI established the Quality Management 10 Commandments that embody our overarching principles for quality management in the areas of product development, production, shipment and customer quality management. These Commandments are made available in postings and banners across our operational sites, and were translated into English, Chinese, Vietnamese, and Hungarian for our overseas operations to ensure all our employees develop their quality-centered mindset.



Quality Management 10 Commandments

# Product Safety

## Advancing the Product Safety and Quality Process

### Putting safety first to preemptively ensure quality

We perform FMEA (Failure Mode and Effect Analysis) to identify and improve the risk of battery fires and to prioritize safety in securing quality. Possible improvements are reviewed early on in the development phase to deliver robust products.

We preemptively perform mass service life/storage verifications in the development phase to detect any potential issues in the mass production process, and will review optimal verification conditions to strengthen our detection of low-voltage defects.

We also verify our key process items in a way that tests their limits in the development phase to ensure safety even under worst case situations. We track down changes along a product's lifecycle through non-destructive testing and other means to verify the safety of products in their degraded mode. We will further advance such verifications in 2023.

### Advancing the statistical process control system

Our statistics-based process management system allows us to prevent potential quality risks underlying in our processes and products. Anomaly signs for key management factors are monitored and controlled in real time throughout the entire process from receiving parts to shipping products, and automatic data trend analyses are performed to fundamentally avoid the shipment of defective products.

In 2022, we established our next-generation quality analysis system running on a big data analytics platform to promptly detect, analyze, address and prevent quality anomalies. AI analytics functionality was introduced for automated training on the images of product defects

to prevent defective items from escaping. In 2023, we aim to deploy a wider variety of statistical process control models to automatically predict and preemptively isolate defects and prevent defective products from being shipped in so doing.

### Establishing uniform mass production quality across global operations

In line with the expansion of our global production, we are taking a function-specific, segmented approach to bolstering our core quality throughout all our global operations. We are working to establish a more robust inspection system by rendering inspections automated and more efficient and innovating our process and shipment inspections in the process across all our locations. To ensure unrivaled competitiveness in delivering exceptional quality, we also bolstered our process anomaly control capabilities and implemented meticulous anomaly management. Furthermore, we reinforced the quality of electrodes that form one of our core processes through verification item optimization to strengthen our global verification capabilities and fundamentally eliminate defects as a result.

### Responding to hazardous substances contained in products

Samsung SDI rigorously manage our products in accordance with our internal standards aligned with such global environmental regulations as the EU Restriction of Hazardous Substances Directive (EU RoHS) for electric and electronic devices and the Registration, Evalua-

tion, Authorization, and Restriction of Chemicals (REACH) regulations. We also review hazardous substances and amend our product environmental regulation response guidelines at least twice a year to provide our partners with training to help them properly manage such substances. We receive and manage environmental documents containing materials data sheets and detailed hazardous substance analysis reports<sup>1)</sup> submitted by partners through the material data and green procurement section of our partner portal (SRM). In line with the growing demand for product environmental performance, Samsung SDI applies hazardous substance content standards that are even more rigorous than domestic/overseas environmental regulations, and will preemptively and voluntarily reduce our consumption of potential regulated substances. Specifically, our Electronics Materials Business that manufactures products for semiconductors and displays ensures that in the event that harmful substances are contained in the raw materials to be used for its new products, such substances are reduced or eliminated starting from the development phase to assist customers in promoting the safety of their employees and making their products eco-friendly.

1) Issued by ISO 17025 certification bodies

### Bolstering quality assurance capabilities

Our Electronic Materials Business established infrastructure to perform advanced raw material assessments to bolster raw materials verification. For instance, concentration treatment improved the effectiveness of its amplification detection performed on the existing analysis equipment. Work is also on-going to predict defects through FMEA, introduce new assessment methodologies, and upgrade existing assessment methodologies to distinguish product quality. Such continued efforts to bolster our quality assurance capabilities will drive our commitment to delivering reliable quality for customers.

# Product Safety

## Bolstering Battery Safety

### Reinforcing safety reviews on products under development

Samsung SDI predicts changes in battery condition throughout their lifecycle ranging from Beginning of Life (BOL) to End Of Life (EOL) as early as from the battery development phase to make products even safer. Product safety is verified at the time of shipment through non-destructive testing among others, and preemptive detection is performed on product safety risk that may occur as battery cells degrade during the use phase. Furthermore, some of the product safety assessment items are subject to conditions more rigorous than the ones assured in the early development phase to accurately identify the limit of product performance and exceed the set assurance requirements. Our efforts for product safety start even from the development phase to make sure we do not manufacture batteries that are not qualified for their safety performance.

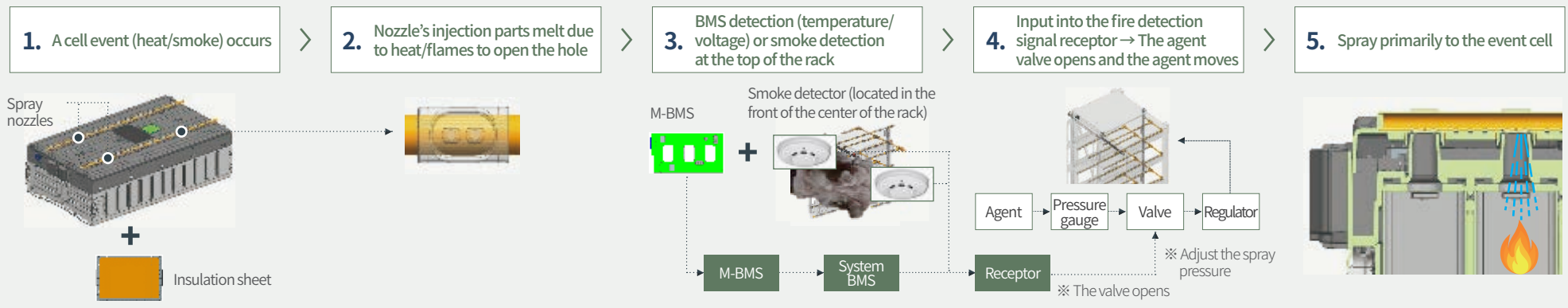
### Deploying a fire extinguishing agent direct spray system for ESS

To ensure the safety of cells that go into ESS products, we deploy our ESS fire extinguishing agent direct spray system that achieves early fire suppression by spraying fire extinguishant primarily on the cell interior/exterior areas detected for incidents. This system was applied to new overseas ESS projects by communicating with customers on its system configuration and design/material specifications, and the system is installed in a way that activates automated, targeted spraying onto the affected cells when an incident occurs. For ESSs already established and up and running, we identify risk factors associated with environment, monitoring, and manufacturing history for our domestic customers, select sites to deploy our direct spray system, and move onto installation following pre-installation review.

### Advancing battery safety management

Samsung SDI's safety management spans from battery production all the way to customer delivery. We establish and comply with front-end safety management standards in the manufacturing process, and apply more rigorous safety management criteria starting from the processes where battery performance can be demonstrated to prevent fires caused by collisions, falls and short circuits. We voluntarily installed firefighting equipment that exceeds statutory requirements, and SDI firefighting units and the process control center operate a 24/7 simultaneous surveillance system. In delivering finished battery products to customers, we abide by international airborne/seaborne transport regulations from packaging to shipping so that our products are safely delivered to customers.

### Mechanism of Fire Extinguishing Agent Direct Spray System for ESS Applications





# Product Safety

## Securing thermal propagation prevention technology

While the increasing energy density of battery cells raises the likelihood of thermal propagation, customers raise their voice for the need for thermal propagation prevention. Against this background, Samsung SDI implemented a technology development project to prevent thermal propagation from the cell all the way to the module and the pack level. In June 2022, a thermal propagation taskforce was created to perform FTA (Fault Tree Analysis) on cells and modules to look into the causes of defects and failures and to identify four factors associated with the prevention of heat propagation. This allowed us to secure thermal propagation prevention technology with the minimum possible price increases and structural modifications, and to propose thermal propagation prevention solutions for respective product development projects. Such thermal propagation prevention technology was made possible by improving the thermal resistance of cells, applying surface insulation between cells, shortening thermal runaway times, and designing appropriate cooling systems. We will establish the safety performance of prismatic stack cells differentiated from that of pouch cells to secure our competitive edge in landing orders. We will also promote our thermal propagation prevention technology to raise awareness on the safety of prismatic stack cells among OEMs and vehicle consumers, alleviating their concern over fires.

## Promoting Customer-centric Product Safety and Quality Management

### Proactively addressing VOC

To ensure our competitive edge in product quality, we keep track of customer defect rates, VOCs and other customer-related metrics as our KPIs. In 2022, we segmented our VOC response process to define R&Rs in each stage and upgraded our quality management system from the IQMS to Q-Portal to shorten our response times. The new Q-Portal system follows the 8D<sup>1)</sup> response process to cater to our growing EV customer base.

We also introduced a statistics-based management program to take stock of the trends of VOC occurrences, pending issues at respective manufacturing sites, and major defects occurring for each product while upgrading the system to automatically submit weekly VOC status reports to senior management. Furthermore, we introduced a reporting system to create Risk Priority Numbers (RPN) for each issue and report issues based on their importance to ensure prompt reporting and communication to top management and relevant departments and to elevate our execution in responding to such issues. In 2023, we will supplement this approach for its shortcomings through case studies and initiate its regular implementation. We also worked to align and advance our VOC handling process between the Headquarters and overseas corporations in line with our global manufacturing expansion. Since March 2022, our Hungarian corporation that produces EV batteries has operated the VOC Committee joined by personnel from the HQ and local technicians to support immediate customer response for newly-submitted VOC, analyze their accurate causes, and develop fundamental solutions in a systemic manner. The VOC Committee has been also up and running at our corporations in the Americas since March 2023 to cater to local customers. In 2023, we will advance our quality management system and establish a relevant system to expand our response to eco-friendly vehicle business for Small-sized Li-ion Battery Business while creating a database of requirements made by EV customers and their implications to develop a potential/recurring defect risk review system. Furthermore, we secure and train customer response personnel at overseas corporations in line with our Global-Standard Operating Procedure (G-SOP) to improve their performance to that of our customer response system at the Headquarters, and ensure approval is promptly granted on new products and products moving onto mass-production. For Electronic Materials Business, quality experts are dispatched to better respond to the quality issues raised by overseas customers, and we identify quality issues in real time and create a database based on these issues through our Focus 119 quality issue management system.

1) 8 Discipline: A process designed to address quality issues raised by customers by identifying root causes, taking corrective action, and developing preventive measures

## Managing and improving customer satisfaction

At Samsung SDI, each business division performs customer satisfaction surveys to collect customer complaints and feedback on a variety of items concerning R&D capabilities, service, and delivery in addition to quality performance. The VOC gathered as such is communicated to relevant departments through meetings and is reflected in evaluating our level of quality and service and setting the course for improvement. Our Small-sized Li-ion Battery Business conducted CSI (Customer Satisfaction Index) surveys on 22 key customers in April and September 2022 to verify effective improvement measures and identify improvements made in customer satisfaction, and launched improvement taskforce activities for six customers whose satisfaction was low due to quality issues among others. The survey performed in April served to go over complaints from respective customers and perform baseline reviews, and improvement plans were developed for each complaint category through collaboration among relevant departments and then were communicated to customers by visiting their sites. The 2nd survey was conducted in April following five to six months of improvement activities to check improvement in customer satisfaction. This revealed that satisfaction among customers for which improvements were made rose by nearly 12.2% from 69.9 points in the first survey to 78.4 points in the 2nd survey, and overall customer satisfaction improved by over 3.5% from 84.7 points to 87.7 points. In 2023, we will define our masterplan to reduce market defects to 1ppm to expand the presence of our cylindrical type battery in the eco-friendly vehicle market, and engage in internal feedback and improvement activities for customer inline and low-voltage defects to consistency pursue greater customer satisfaction. Electronic Materials Business resumed its customer satisfaction survey in 2022 following its suspension in 2020 and 2021 amid COVID-19. The survey used an updated questionnaire to compare its product competitiveness against industry peers and was conducted on 24 key customers for 12 electronic material items in the five categories of product quality, issue response, technology response, delivery/supply, and development performance. This showed that the division was more exceptional than industry peers for 10 items and was equal to its peers for two items. Customer satisfaction survey results are shared among relevant departments to develop and implement improvements to secure competitiveness.

# Product Safety

## CET(Customer Environment Test)

Our CET (Customer Environment Test) aims to minimize risk that may occur when customers use our battery while ensuring the performance stability of our products. For existing or new customers wishing to use our battery cells for their new projects, we investigate in advance the conditions and environments where their products will be deployed and review whether our cells are appropriate for their new projects, whether it being a battery pack or an application. In so doing, Samsung SDI ensures that customers properly use our products for their battery pack or application while preventing potential risk factors that may affect the market and end consumers.

As the share of mobility applications (e-scooter, e-bike, etc.) continued to increase in 2021 and 2022, we raised the bar for waterproof performance ratings and kept our products from entering high-risk application markets. It is worth noting that our CET implementation reached 100% in 2022 by reviewing CET implementation by shipment case so that products that did not receive CET verification would not be made available on the market. We will continue with our CET implementation well into 2023.

In consideration of the importance of e-mobility products, we took a project-based approach rather than implementing CET for key applications to address relevant risks more preemptively. In 2023, we will redefine products subject to CET and project undertaking respectively to bolster our risk response.

## Extending the Scope of Quality Improvement Management

### Supporting overseas corporations with quality improvement

Samsung SDI bolsters our quality gate implementation to secure quality competitiveness across our domestic/overseas production corporations. Function-specific one-on-one matching mirror organizations were created between the Headquarters and each corporation to provide systemic support for these corporations to pursue quality management on their own initiative, along with evaluation testing automation and the improvement of process inconsistencies. As part of such efforts, work/infrastructure/standard inconsistencies were improved to secure uniform quality, and process inspection monitoring was automated to improve the efficiency of testing POS and its methodology to strengthen the overall inspection system. We will continue to pursue automation, efficiency improvement, and advancement of our inspection system in line with the expansion of our overseas corporations to ultimately deliver best-in-class quality.

Our Electronic Materials Business is working to elevate the quality capabilities of local overseas personnel to improve quality satisfaction for overseas customers. Meetings are operated with manufacturing, technology, and quality personnel from our Cheongju worksite to transfer their know-how in polarizing film manufacturing to local staff and expatriates, along with discussions for problem solving, to improve the work skills of our employees at overseas corporations.

### Supporting partners with quality improvement

In 2022, we further raised the bar on our incoming inspections. In addition to regular sampling inspection, we increased the number of samples by 10 to 30 times to perform intensive inspections on the items (appearance, measurements, properties, etc.) that raise issues in our process. This enabled us to prevent quality issues from occurring and affecting our manufacturing process. In tandem with this, we encouraged our partners to improve their quality to avoid defects, and helped supplement their shipment gate for improved outgoing quality. Furthermore, we reinforced our permanent inspection activities concerning new partner qualifications, engineering changes, and quality issues to identify processes that may have critical impact on battery quality and ensure partners engage in intensive review and improvement.

Cross-checking quality with partners from semi-finished parts to finished products also helped share each other's viewpoints and encourage partners to improve quality. With Samsung SDI taking the lead, a quality innovation taskforce was operated for partners with unsatisfactory quality performance to help take their quality assurance system to the next level. Our Electronic Materials Business realigned its operations to perform new SQE (Supplier Quality Engineering) work in addition to raw material quality assurance to help its raw material partners improve their fundamentals. Dedicated SQE personnel will be appointed to assist partners in improving their process and preemptively identifying risk. For polarizing film business, the PQ (Partner Quality) Part was created in 2022 to be exclusively responsible for outsourcing partners, and engineers were designated for each partner for tailor-made partner management.



# M2.OVE TO NET-ZERO

## Action for Climate Crisis

Joined the RE100 and publicly committed to eco-friendly management

Calculated Scope 3 emissions

Achieved Carbon Trust carbon footprint certifications

## Circular Economy and Environmental Impact Management

Expanded batteries closed-loop system to Malaysia/Hungary

Achieved Zero Waste to Landfill (ZWTL) Platinum certifications

## 2022 KEY ACHIEVEMENTS

# Action for Climate Crisis

## Governance

Samsung SDI created the Sustainability Management Committee under the Board of Directors in January 2022, and Sustainability Management Office under the direct leadership of the Chief Financial Officer(CFO) in February to bolster our company-wide sustainability management governance. We also launched the Sustainability Management Council as a C-level consultative body led by the CEO to reinforce the role of top management.

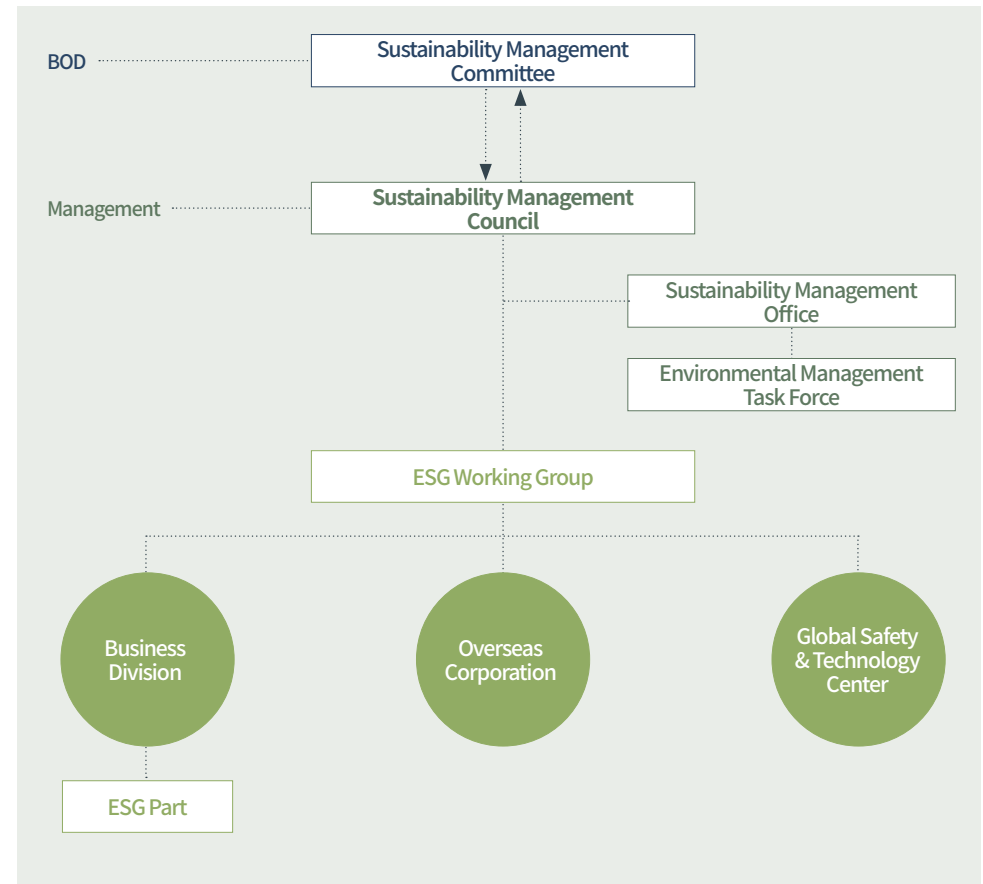
The Sustainability Management Committee, composed of four independent directors, is the highest governance body to make decisions on overall matters related to action for climate crisis. In 2022, the Committee met five times to make key decisions for climate change adaptation to join the RE100, publicly commit to environmentally friendly management, and select and implement strategic tasks for environmental management.

The Sustainability Management Council under the supervision of the CEO is the largest meeting body supervised by our CEO and is mandated to report, discuss, review, and decide on all issues and tasks associated with Samsung SDI's sustainability management. The Council convened three times in 2022, starting with its first meeting in April, to go over the eight tasks implemented by the environmental management taskforce for their progress and issues.

The Sustainability Management Office identifies climate-related risks and opportunities, develops company-wide response strategy in alignment with our business strategy, and supports the operation of the Sustainability Management Committee and the Sustainability Management Council. The Office closely cooperates with the ESG Part of our business divisions, overseas corporations, and relevant departments to expand and bolster sustainability management at all levels.

The Global Construction/Infra Team under the Global Safety/Technology Center engages in a host of activities for climate change adaptation, including the collection and management of GHG emissions data, GHG emissions reduction, renewable energy transition, and energy saving efforts.

### Governance for Climate Crisis Response



# Action for Climate Crisis

## Strategy

### Analysis of Risk and Opportunity Factors

Type	Factor	Financial Impact <sup>1)</sup>			Stakeholder	Our Response		
		Short-term	Mid-term	Long-term				
Risk	Current Regulation & Policy	Emissions Trading Schemes	Low	Mid	High	Governments	<ul style="list-style-type: none"> <li>Develop and implement direct GHG emissions reduction strategies</li> <li>Join RE100 and switch to renewable energy for power consumption across all worksites by 2050</li> </ul>	
		Carbon Border Adjustment Mechanism	Mid	High	High	Customers, Partners, Investors	<ul style="list-style-type: none"> <li>Join RE100 and switch to renewable energy for power consumption across all worksites by 2050</li> <li>Establish an LCA system and implement carbon footprint reduction plans with partners</li> </ul>	
	Emerging Regulation & Policy	Proposal for an EU Regulation concerning batteries and waste batteries	Mid	High	High	EU regulators, Customers, Partners, Investors	<ul style="list-style-type: none"> <li>Join RE100 and switch to renewable energy for power consumption across all worksites by 2050</li> <li>Establish an LCA system and implement carbon footprint reduction plans with partners</li> </ul>	
		EU Corporate Sustainability Reporting Directive	Low	Low	Low	EU regulators, Customers, Partners, Investors	<ul style="list-style-type: none"> <li>Calculate Scope 3 emissions and establish reduction target</li> </ul>	
	Transition Risk	Technology	Expansion of R&D in low carbon technology and product	Low	Low	Low	Customers, Partners	<ul style="list-style-type: none"> <li>Invest in and commercialize technology to make low-carbon and high-efficiency products</li> </ul>
		Market	Customers' demand for product carbon emission reduction	High	High	High	Customers, Partners	<ul style="list-style-type: none"> <li>Secure the ability to respond to markets' and customers' requirements due to the climate crisis</li> <li>Establish an LCA system and implement carbon footprint reduction plans with partners</li> </ul>
				Increasing demand for renewable energy transition	Mid	High	High	Customers, Partners
		Reputation	Call for climate-related risks assessment and disclosure	Low	Low	Low	Shareholders/Investors, Customers	<ul style="list-style-type: none"> <li>Develop and disclose strategies to respond to the climate crisis, including carbon neutrality strategies</li> <li>Disclose information on response to the climate crisis in accordance with the CDP and TCFD recommendations</li> </ul>
	Physical Risk	Acute	Typhoons, floods, heat waves, and fires	Low	Low	Low	Customers, Partners, Employees, Communities	<ul style="list-style-type: none"> <li>Check workplace emergency response manuals on an on-going basis</li> <li>Bolster facility safety, subscribe to emergency insurance plans, etc.</li> </ul>
		Chronic	Abnormal temperature, drought, sea level rise	Low	Low	Low	Customers, Partners, Employees, Communities	<ul style="list-style-type: none"> <li>Prevent low productivity by increasing energy efficiency of cooling and air conditioning system and increase water reuse</li> <li>Consider chronic risks when changing the business plan or reviewing new worksites</li> </ul>
Opportunity	Product/Service	Increasing sales by securing low-carbon products	High	High	High	Customers, Partners, Shareholders/Investors	<ul style="list-style-type: none"> <li>Establish an LCA system and expand carbon footprint certified products</li> <li>Invest in and commercialize technology to make low-carbon and high-efficiency products</li> </ul>	
	Resource efficiency	Operation cost reduction through resource efficiency improvement	Mid	Mid	Mid	Customers, Partners, Shareholders/Investors	<ul style="list-style-type: none"> <li>Expand a scrap recovery system and end-of-life batteries closed-loop process</li> <li>Reduce water consumption by increasing reuse</li> </ul>	

1) Risks and opportunities are categorized into short-term(2023~2025), mid-term(2026~2030), and long-term(2031~) based on the duration of their impact. (e.g. The impact of GHG emissions trading schemes may increase in line with decreasing allowances.)



# Action for Climate Crisis

## Our Response to Risks and Opportunities

### – Reducing GHG Emissions

Samsung SDI caters to stakeholder needs through GHG emissions management and reduction as well as transparent disclosure to swiftly and proactively respond to the global climate crisis. In October 2022, we publicly committed to environmentally friendly management and announced our strategic tasks to counter the climate crisis. We have since progressed towards implementing these tasks by fully transitioning to renewable energy, reducing direct GHG emissions, switching to zero-emission vehicles for our corporate fleet vehicles, and expanding carbon footprint certification. We have participated in the Korea Emissions Trading Scheme since 2015, and our Hungary corporation has joined the European Emissions Trading System since 2021, meeting our obligation to submit emissions data and managing our progress towards the set goals. We improve the transparency of our disclosures through our CDP commitments, and we were awarded an A- rating in 2022. In 2023, we plan to become a CDP Supply Chain member to manage our partners' GHG emissions and forge even closer partnerships.

### Company-wide GHG Emissions

Category	Unit	2021	2022 <sup>1)</sup>
Total emissions	tCO <sub>2</sub> e	1,809,471	2,864,667
Direct emissions	tCO <sub>2</sub> e	225,594	242,116 <sup>2)</sup>
Indirect emissions	tCO <sub>2</sub> e	1,347,936	1,418,616 <sup>3)</sup>
Other indirect emissions	tCO <sub>2</sub> e	235,941	1,203,935

1) 2022 emissions were reported as market-based GHG emissions that reflect the consumption of renewable energy. Our location-based GHG emissions that do not reflect the consumption of renewable energy amounted to 2,953,550tCO<sub>2</sub>e.

2) Saved 6,340 tCO<sub>2</sub>e by reducing LNG use

3) Reduced 88,900 tCO<sub>2</sub>e by purchasing renewable energy certificates

### Transitioning to renewable energy

Samsung SDI set a goal of fully transitioning to renewable energy for our entire domestic and overseas operations by 2050. In October 2022, we joined the RE100 (Renewable Energy 100%) in recognition of our ambitious renewable energy transition plan. To attain this goal, we are exploring a wide array of options to purchase Renewable Energy Certificates (REC) and sign PPAs (Power Purchase Agreement) among others. In 2021 and 2022, we purchased additional RECs to offset some of the power consumed at our corporations in Hungary and Tianjin, China. From 2023, Cheonan and Ulsan worksite began the renewable energy transition through green premium purchases

We aim to fully shift to renewable energy for power consumption at all our overseas corporations by 2025. Guided by our overarching goal of reaching 100% in renewable energy transition by 2050, we will make gradual switches – 68% by 2025, 76% by 2030, and 90% by 2040.

### Use of Renewable Energy

Category	Unit	2022 Performance	2023 Goal	2025 Goal
Use of renewable energy	%	9.3	26.0	68.0

### Conserving energy use

In response to global climate change, we reduce our energy consumption by switching to high-efficiency equipment and recycling waste energy to join in the global climate efforts and respond to climate regulations. We set our energy conservation goals for key energy sources by 2050; we identified key conservation tasks to reach these goals and are working towards these goals at every level of the Company.

In 2022, we provided all our worksites with energy technology support and rolled out best practices to maximize the impact of our energy conservation efforts. We switched to high-efficiency equipment and improved our operational efficiency with a focus on equipment consuming a large amount of energy in. In addition, dehumidifier management standards were relaxed and Testing, Adjusting and Balancing (T.A.B) was performed for air conditioning to optimize our energy use. Our taskforce composed of energy experts assessed the energy consumption of our new and expanded production lines in Korea and abroad to eliminate losses and continuously pursue improvements.

# Action for Climate Crisis

## Key Achievements in Energy Savings by Worksite

Business Division	Worksite	Activity	Achievement
Small-sized Li-ion Battery	Cheonan	Introduced charger/discharger AC power recovery devices	Reduced power consumption
	Tianjin	Changed the energy source of dry ovens	Reduced costs
	Malaysia	Reduced the operation of compressors	Improve power losses
Automotive & ESS	Ulsan/Xi'an/Hungary	Lowered the temperature of washing water in the washing process	Reduced power consumption
	Hungary	Optimized the operational efficiency of dehumidifiers	Reduced air conditioning operational expenses
Electronic Materials	Gumi	Introduced high-efficiency refrigerators	Improved the efficiency of power consumption
	Wuxi	Improved the operational efficiency of RTO <sup>1)</sup> by replacing its heat storage materials	Cut fuel consumption

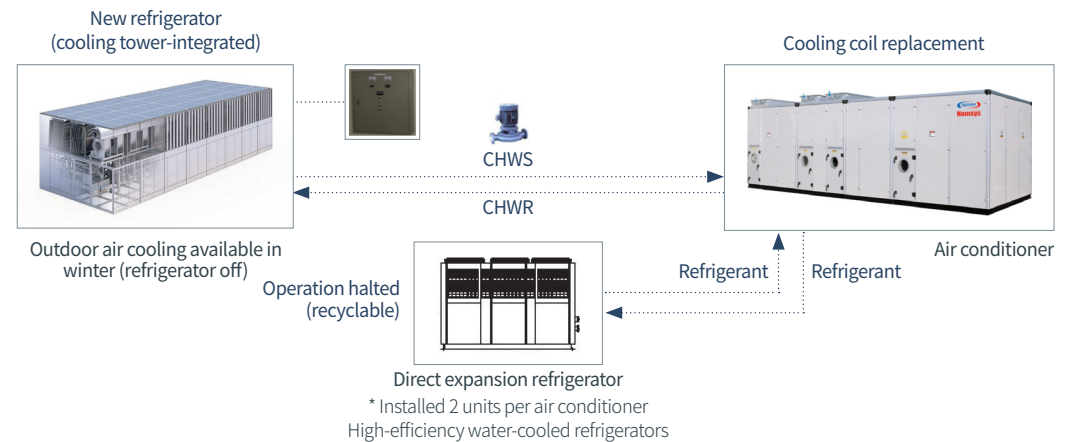
1) Regenerative Thermal Oxidizer

### CASE Lowering the temperature of washing water in the washing process to reduce power consumption

At our Ulsan, Xi'an and Hungarian worksites, washing water in washing equipment used following assembly is managed at the high temperature of 70°C to improve the cleaning capability of the chemicals contained, which results in a sizable amount of heater power consumption. To reduce such power consumption, optimizing the temperature of washing water was required so that the water would hot enough not to cause any quality issues. The cleaning performance of washing water was analyzed in different temperature ranges, and the temperature was decreased from 70°C to 25°C in supplying the water. Real-life tests showed that this temperature reduction did not result in any significant difference in cleaning performance. The reduction made in heater loads for washing water as a result was translated into the annual power savings of 15,080MWh.

### CASE Switching to high-efficiency refrigerators to improve power efficiency

At our Gumi worksite, old refrigerators resulted caused continued increases in maintenance cost, and power expenses for cooling air conditioning equipment rose as well. With the previous air-cooled refrigerators, the refrigerator and the cooling tower were separated, and this necessitated condensation fans to cool down the heat with air. In contract, water-cooled refrigerators with the integrated cooling tower use cooling water to remove the heat and do not require any separate chiller for conditioning equipment. Switching to water-cooled refrigerators and improving air conditioning made refrigerators 2.4 times more efficient while saving 5,768MWh in annual power bills. Switching to a new cooling system also stabilized both temperature and humidity levels over time.



# Action for Climate Crisis

## Reinforcing the energy management system at the worksite level

Following the deployment of the EES (Equipment Engineering System) at our Cheonan worksite, we did the same for our Ulsan worksite in 2022 to improve our energy management efficiency. Work automation made possible with the EES – heat exchanger efficiency management, filter differential pressure management, and load management for transformers and circuit breakers - allowed us to efficiently manage our energy use. We also leverage our S-GEMS to manage the energy consumption of our worksites and their energy saving projects. Going forward, we will continue to identify operational issues and accumulate big data on energy standards to render our management system even more efficient. Between March and September 2022, we engaged in taskforce activities to pursue the structural innovation of our power consumption and identified major improvement tasks including one on 'reclaiming and recycling exhaust air collected from dehumidifying air'. These tasks are implemented in a way that supports their company-wide application in line with identical criteria. For our overseas production facilities in Hungary, Xi'an, and Malaysia, we regularly engaged in skill-up training by identifying energy saving tasks and calculating their benefits.

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

Category	Unit	2020	2021	2022
Total investments	KRW million	2,869	4,710	4,692
Fuel saving activities	cases	98	78	61
Electricity & steam saving activities	cases	667	595	404
Total reductions made	TJ	1,640	1,741	1,905
-Fuel reduced	TJ	396	247	277
Savings generated				
-Electricity & steam reduced	TJ	1,244	1,494	1,628
Total savings generated	KRW 100 million	195	213	313
-Fuel savings generated	KRW 100 million	44	28	43
-Electricity & steam savings generated	KRW 100 million	151	185	270

## Building infrastructure for EVs and electric buses

Samsung SDI joined the K-EV100 led by the Ministry of Environment to fully transition to zero-emission vehicles for all our owned and leased corporate fleet vehicles by 2030, and has since gradually progressed towards this commitment. According to the recommendations by the Ministry of Industry, Trade and Energy to establish EV chargers, we expanded charging areas at each of our worksites to ensure these areas account for 2% of their total parking lots by 2023.

## Zero-emission Vehicles Deployed and Our Goals

Category	Unit	2022 Performance	2023 Goal
Total zero-emission vehicles	No. of vehicles	19	34
Passenger cars for business	No. of vehicles	16	29
Passenger cars for executives	No. of vehicles	2	2
Buses	No. of vehicles	1	3
Transition rate	%	11	20

## Expansion of EV Charging Areas in 2022

Worksite	Unit	Expansion of Charging Spaces
Giheung	No. of spaces	8
Cheonan	No. of spaces	15
Ulsan	No. of spaces	12
Cheongju	No. of spaces	4
Total	No. of spaces	39



Test-drive of an eco-friendly high-floor electronic bus



EV charging area at our Giheung worksite

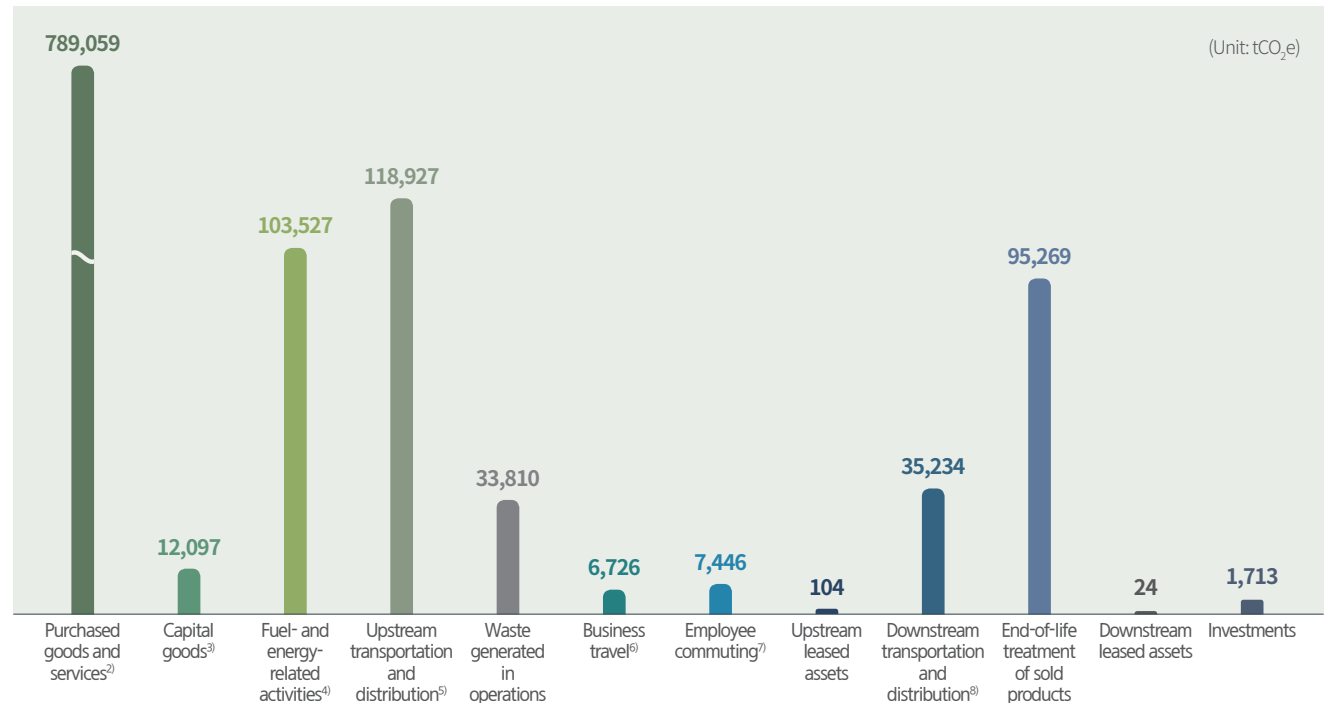
# Action for Climate Crisis

## Rigorous Scope 3(Other indirect emissions) management

As reducing carbon emissions across the whole value chain is increasingly recognized as an instrumental part of the global efforts to achieve carbon neutrality, Scope 3 management is gaining prominence as a key agenda among businesses. To actively join in on the global endeavors for climate change adaptation, Samsung SDI has launched an internal taskforce along with ESG, procurement, logistics, HR/general affairs departments to bolster our Scope 3 GHG emissions management capabilities.

This started with establishing our emissions calculation methodology in line with the GHG Protocol's Scope 3 accounting standards. While we made disclosures on four out of 15 Scope 3 categories, we significantly extended our coverage to 12 categories that are highly associated with our business in calculating and disclosing our GHG emissions. Samsung SDI will feed emissions calculation data into setting our Scope 3 reduction goals in reflection of the SBTi (Science-Based Target initiative) and other global requirements as well as internal/external stakeholder requirements. In tandem with this, we will work with partners to identify and implement reduction tasks and further our efforts to increase the accuracy of emissions calculation by extending the scope of calculation and securing emissions factors.

Scope 3(Other Indirect Emissions) in 2022<sup>1)</sup> : 1,203,935 tCO<sub>2</sub>e



1) Excluded 10) Processing of sold products, 11) Use of sold products, and 14) Franchises from the 15 GHG Protocol categories  
 2) Calculated for the top 90% of the raw/subsidiary material purchase expenses  
 3) Calculated for the top 90% of the equipment purchase expenses  
 4) Fuel- and energy-related activities not included by Scope 1 and 2 (domestic and overseas operations)  
 5) Calculated for the top 80% of the transport/logistics service expenses  
 6) Domestic and overseas worksites, but not included land transport used overseas  
 7) Commuter buses operated at domestic worksites  
 8) Calculated for the top 80% of the transport/logistics service loads



# Action for Climate Crisis

## Our Response to Risks and Opportunities - Managing the Environmental Impact of Products

### LCA(Life Cycle Assessment) implementation

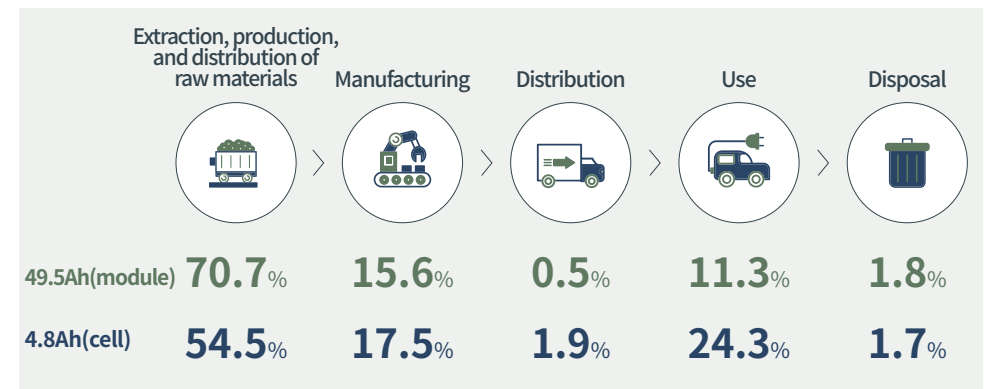
Samsung SDI performs LCA (Life Cycle Assessment) to analyze the environmental impact generated along a product's life cycle from raw material extraction and product use to disposal and recycling. This bases our efforts to explore ways to improve any adverse impact on the environment and respond to EU's Batteries Regulation. We will also gradually expand products certified for their carbon footprint performance to calculate and transparently disclose our carbon footprint left behind along the entire lifecycle. To this end, we will strive to build internal capabilities for carbon footprint calculation and work with partner companies to reduce our carbon footprint.



Carbon Trust Certification 'Carbon Footprint Calculation' →

### Achieved Carbon Footprint certification for batteries

Samsung SDI plans to achieve Carbon Trust carbon footprint certification for major products, and in June 2023, we achieved Carbon Trust certification based on our carbon footprint calculations made on 49.5Ah(-module) and 4.8Ah(cell) products. Carbon emissions were calculated along the entire lifecycle from the extraction of raw materials to their processing and disposal in accordance with the PAS 2050 developed in the UK, and the EU PEFCRs (Product Environment Footprint Category Rules) applied to battery products. While proportions in each stage varied by country of sale, the pre-production stage that extracts, produces, and distributes raw materials accounted for 50% and over in most cases. This alerted us to the needs for managing emissions in our partners' manufacturing and extracting stage as well as our own manufacturing stage. Meanwhile, discrepancies were witnessed in the use stage as electricity emission factors differed by country, which affected the proportion of emissions throughout the entire life cycle.



# Action for Climate Crisis

## Risk Management

Samsung SDI's risk management process starts with identifying and assessing climate-related risks to understand their impact, and moves on to develop response strategies based on their impact on our operations and make decisions accordingly. In line with the ISO 14001 environmental management system standard to which all our operations were certified, relevant departments from EHS, infrastructure, marketing and procurement functions identify climate change impacts associated with external regulations and trends, internal organizational activities, and products. When risks and opportunities are identified, the ESG Strategy Group and the ESG Working Group analyze and prioritize them in consideration of their financial impact, the timepoint of their physical occurrence, and our current response levels. This is reported to the company-wide Sustainability Management Council that meets regularly on a quarterly basis to discuss response strategies and action plans, and critical risks are reported and agendas are proposed to the Sustainability Management Committee for its decision-making. Climate-related, country-specific regulatory risks are included in our company-wide business decision-making process for their integrated management.

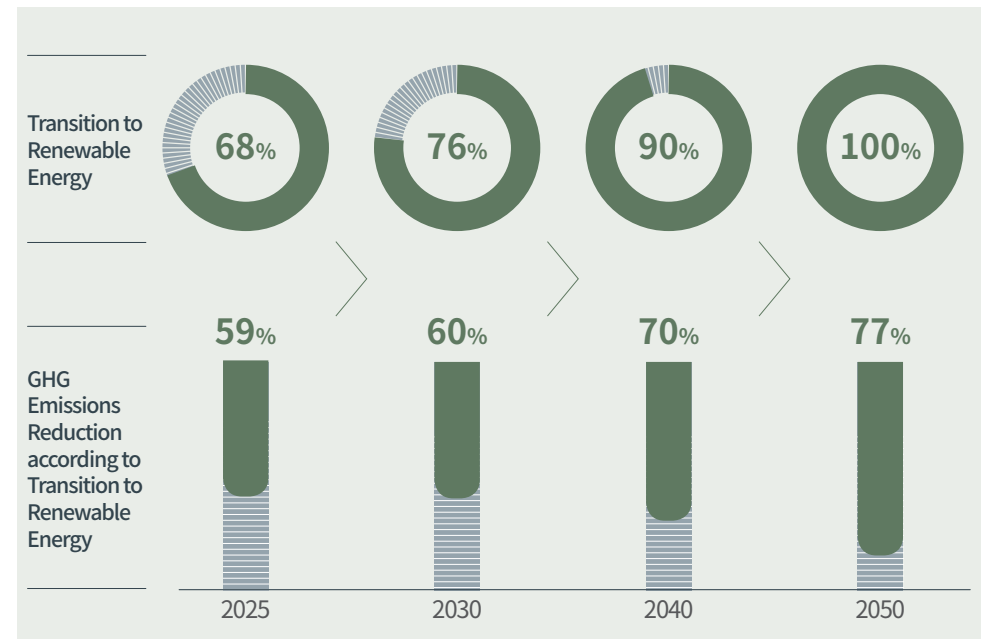
### Internal Process for Risk Management



## Metrics and Targets

We aim to fully shift to renewable energy for power consumption at all our overseas corporations by 2025. Guided by our overarching goal of reaching 100% in renewable energy transition by 2050, we will make gradual switches – 68% by 2025, 76% by 2030, and 90% by 2040 – and this will allow us to reduce our GHG emissions by 77% by 2050 compared to BAU levels.

### Renewable Energy Transition Goal



# Circular Economy and Environmental Impact Management

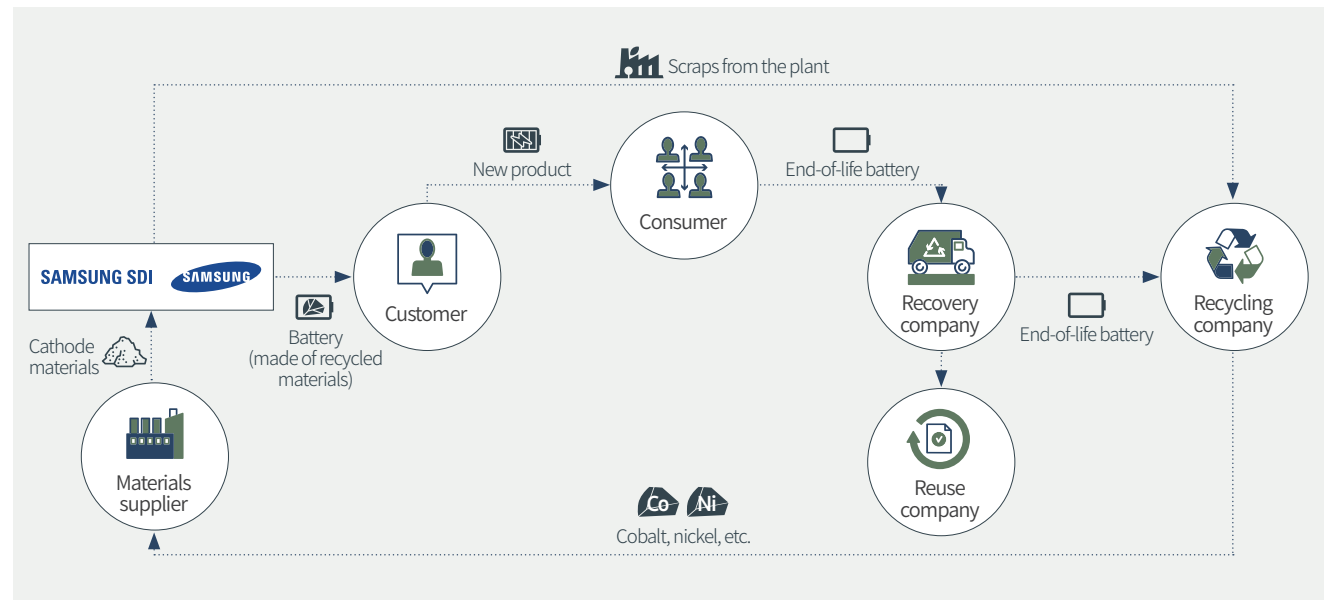
## Our Approach and Management Plan

The expanding battery market may give rise to a surge in the generation of end-of-life batteries, and environmental regulations will take effect in relation to the processing and recovery of such batteries. We strive to increase resource recovery through recycling and reuse to move ahead in responding to such upcoming changes and to mitigate the environmental impact of end-of-life batteries from the viewpoint of battery lifecycle. We are establishing a closed-loop process to reclaim mineral resources from process scraps and end-of-life batteries, and will roll out this process across our global operations. Furthermore, we will pursue process innovation to reduce recycling expenses by 2030 and secure our cost competitive edge as a result.

### Closed-loop process

The closed-loop process is designed to reclaim mineral resources either from process scraps or from end-of-life batteries. To recover mineral resources from the scraps generated from our manufacturing process, we work with third-party companies specializing in this specific area to retrieve cobalt, nickel, lithium and other minerals from process scraps. In recovering mineral resources from batteries used and discarded by end consumers, we will team up with customers (car OEMs) to establish an end-of-life battery recovery system.

### Samsung SDI's Resource Recovery Process



# Circular Economy and Environmental Impact Management

## Recycling and Reuse

### Our progress towards recycling

Samsung SDI is establishing a process scrap recovery system across our overseas locations in Malaysia and Hungary as well as in Cheonan and Ulsan in Korea to retrieve valuable mineral resources. Scraps generated from our plants are collected by companies specializing in scrap recycling to retrieve nickel, cobalt and other minerals. The resources reclaimed as such are transported to our battery material partners and are fed back into the manufacturing of raw and subsidiary materials that are eventually supplied to Samsung SDI. In 2023, we will establish this system across even more overseas locations in Tianjin and Xi'an in China to expand our recycling volume.

### Our Goal in Using Recycled Metals<sup>1)</sup>

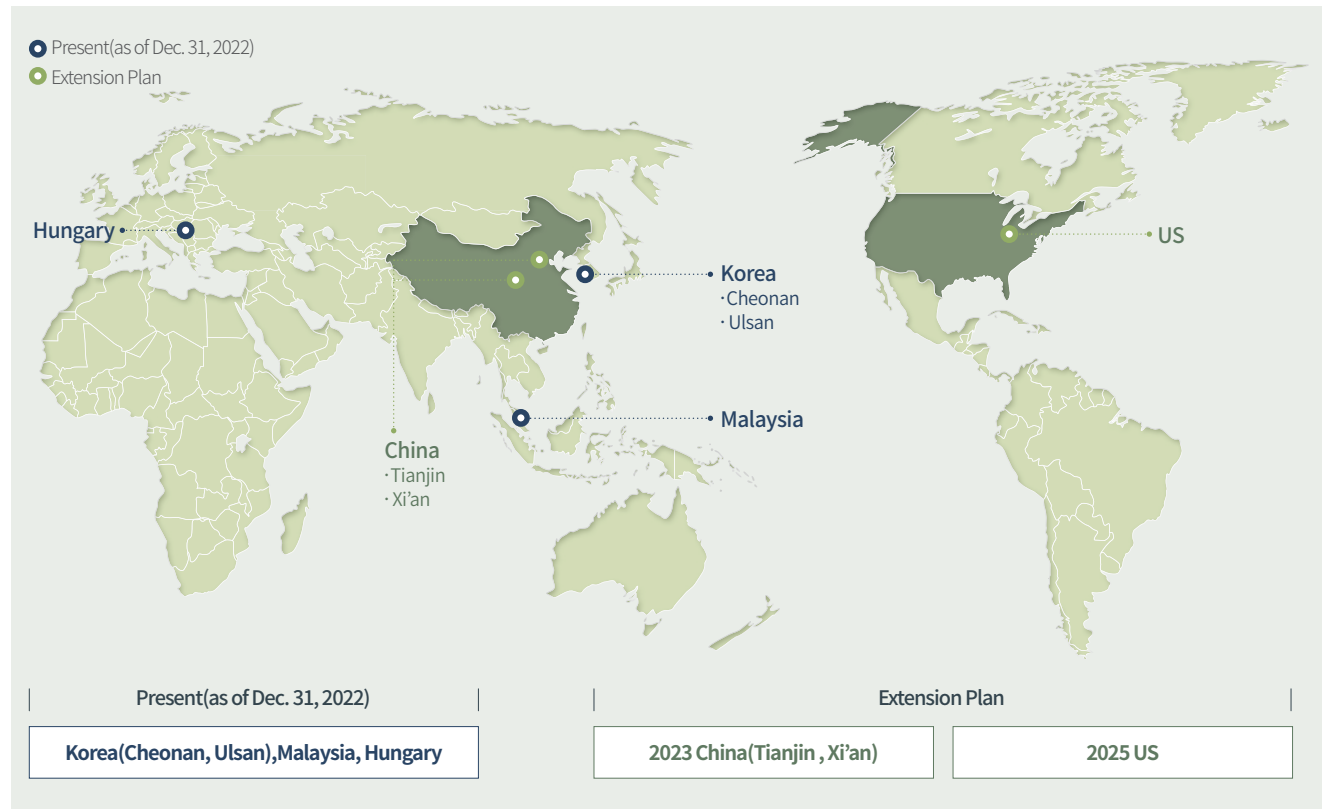
Category	Unit	2022 Performance	2023 Goal	2025 Goal
Use of recycled metals	%	2	4	12

1) Cobalt, nickel, and lithium

### Our progress towards 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

## Waste Management

### Minimizing waste generation and ensuring their safe treatment

Samsung SDI takes the waste-to-resource approach to increase recycling and minimize the waste generated from our domestic and overseas operations. In 2022, we obtained the ‘Zero Waste to Landfill (ZWTL)’ certification<sup>1)</sup> for our domestic plants to raise our profile and brand value as an environmentally friendly business. In 2023, we will earn ZWTL Platinum Validation for all our domestic operations including our Suwon worksite and Gold or higher Validation for our overseas corporations to ZWTL. To ensure reliability in contracting our waste treatment and the lawful treatment of waste within our worksites, we request outsourcing companies to submit their confirmation on regulatory compliance to verify that they abide by applicable laws, and communicate our regulatory compliance opinions to these companies to make sure that waste is processed in a legally appropriate manner. Meanwhile, we fully recycle all end-of-life batteries generated from our R&D and process operations as well as scraps generated from our manufacturing process with the help of recycling companies. Going forward, we will explore ways to recycle batteries used and discarded by customers and end consumers and introduce appropriate recycling methods.

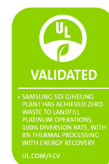
1) Giheung and Cheongju worksites received Platinum Validation, and Ulsan and Gumi worksites received Gold Validation

### Our Progress and Goals towards Waste Management

Category	Unit	2022 Performance	2023 Goal	2025 Goal
Intensity-based reduction in waste generation (Baseline 2020)	%	-38.3	-5.1	-10
Waste recycling rate <sup>1)</sup>	%	93	-	80

### Our Progress and Goals towards Zero Waste to Landfill Validations

Category	2022 Performance	2023 Goal
Platinum	Giheung and Cheongju	Giheung, Cheongju, Gumi, Cheonan, Ulsan, and Suwon
Gold	Cheonan, Ulsan, and Gumi	Tianjin, Wuxi <sup>2)</sup> , Xi'an, Hungary, Malaysia, and Vietnam



Giheung worksite (left) and Cheongju worksite (right) earned Platinum Validations

## Water Resources Management

### Managing our water use and wastewater discharge

Samsung SDI strives to reduce our water consumption. In 2022, we recycled discharged effluents and reused the water discarded when process-specific continuous water quality measurements are made. We also reduced our water consumption by improving the efficiency of our deionized water manufacturing equipment. We set our mid/long-term goal of reusing water between 2023 and 2050 and are making progress towards the water saving tasks identified each year. In 2022, we reviewed alternatives to hazardous chemicals used for wastewater treatment at our domestic operations. This allowed us to switch from sulfuric acid and caustic soda to their substitutes at our wastewater treatment facility and make improvements on our use of harmful chemicals. To preserve the quality of water, we raise the bar in operating and managing the wastewater treatment facilities up and running at our worksites to minimize the discharge of water pollutants. Our internal water pollutant discharge standards are 30~50% more stringent than legally-permissible ones, and we introduce and operate discharge monitoring devices to ensure the water pollutants generated from our operations do not exceed our internal standards.

### Our Progress and Goals towards Water Management

Category	Unit	2022 Performance	2023 Goal	2025 Goal
Water reuse rate <sup>2)</sup>	%	23.0	26.2	31.7
Water withdrawal reduction <sup>3)</sup>	10 thousand tons	29.2	89.0	208.0
Intensity-based reduction in water pollutant <sup>4)</sup> discharge (Baseline 2020)	%	-42.1	-18.9	-33

### Water Pollutant Discharge

Category	Unit	2020	2021	2022
Water pollutants	BOD	11,977	27,447	14,098
	COD	98,907	115,144	100,537
	SS	46,785	43,288	48,654

- 1) Waste recycled/discharged
- 2) Water reused/consumed, Cumulative reduction goals for 2025 were upward adjusted
- 3) Compared to the estimated amount
- 4) Sum of BOD, COD, and SS discharged
- 5) Achieved Platinum validations in February 2023

# Circular Economy and Environmental Impact Management

## Pollutant Management

### Reduction the emission of air pollutants

To reduce the air pollutants that stem from our business operations, we apply internal air pollutant emission standards that are more stringent than legally-mandatory ones, and install and operate optimized air pollution control equipment at each of our emitting facilities. Pollutants released to the atmospheric environment following their treatment are regularly assessed and monitored for their compliance with our internal standards, and are continuously managed for their emission trajectory. To minimize the generation of particulate matters and mitigate our environmental impact on nearby communities, we switched to low-NOx burners for boilers used at our worksites. We also shifted from organic to inorganic fuels for some of our manufacturing processes as part of our sustained efforts to reduce the emission of air pollutants.

### Our Progress and Goals towards Air Pollutants Management

Category	Unit	2022 Performance	2023 Goal	2025 Goal
Intensity-based reduction in air pollutant <sup>1)</sup> emission (Baseline 2020)	%	-65.0	-9.1	-17

1) Sum of NOx, SOx, and PM emitted

### Air Pollutants Emission

Category	Unit	2020	2021	2022	
Air pollutants	NOx	kg	70,114	58,475	39,548
	SOx	kg	3,480	1,871	1,281
	PM	kg	63,329	46,349	44,554

## Employee Engagement

### Minimizing the use of disposables

To keep pace with the government's accelerating and intensifying green policy to regulate the use of disposables among others, we launch campaigns primarily for in-house cafeterias and stores operating at our worksites to encourage our employees to stop using take-out plastic and plastic supplies. In 2022, we found that plastic single-use items were consumed in large quantities at the office. In response, we ensured that bottled water and single-use paper cups were not made available in the office environment and instead recommended employees to opt for personal tumblers and mugs. We also ensured that the purchase of bottled water and beverages as well as single-use paper cups would not be settled as business expenses. We made sure businesses operating at our worksites replace plastic straws with paper ones and stop providing plastic bags to reduce the consumption of plastic and disposables. Looking ahead, we will continue to further boost our employees' voluntary participation and cooperation with our environmental protection initiative to cut down on the use of disposables.

### Our Progress and Goals towards Reducing the Use of Disposables

Category		2022 Performance	2023 Goal
In-house cafeteria	Bottled water	Achieved zero (May)	Continue to achieve zero disposables used
	Bottled water	Achieved zero (June)	at the in-house cafeteria and office spaces
Office	Paper cup	Achieved zero (Sep.)	
	Plastic straw	Replaced with paper straws	Convert single-use cups to multi-use cups
Stores operating at our worksites	Plastic bag	Stopped offering	

### Environmental management campaigns that engage our employees

We launch campaigns that engage our employees so that they could contribute to our eco-friendly management and net zero journey in their daily lives. In 2022, a company-wide idea contest was held to gather together a host of ideas for carbon reduction including energy saving and resource recycling and to award innovative and actionable ideas. We also launched an end-of-life battery collection campaign which is closely aligned with our core business. Our employees brought their products containing used Li-ion batteries, which were then delivered to recycling organizations or safely disposed of depending on their recyclability. We will share our commitment to eco-friendly management with all our employees and drive their voluntary participation in environmental management.



# PARTNERSHIP WITH VALUE-CHAIN PARTNERS AND COMMUNITY

3.

## Value-Chain Partnership

Expanded the win-win cooperation organization

Improved partners' manufacturing capabilities

Signed the autonomous agreement to narrow the gap between large businesses and SMEs

## Togetherness with Community

Joined Samsung-wide CSR Programs

2022 KEY ACHIEVEMENTS

# Value-Chain Partnership

## Our Approach and Management Plan

As a global leader, Samsung SDI pursues joint growth with partners based on win-win partnership, and complies with fair trade principles to promote free competition while helping partners boost their competitiveness to pave the way for sustainable growth. We also implement three joint growth missions to progress farther ahead with partners, creating a mutually-cooperative ecosystem along the way.

### Expanding the win-win cooperation organization

As our expanding global presence further highlights the importance of joint growth with partners, we reorganized the Coexistent Cooperation Office, our win-win cooperation organization, into one under the direct leadership of the Business Management Office while creating a sublevel organization to support innovation consulting. Innovation consultants will assist partners in identifying issues and improvement tasks across their entire operations including quality, manufacturing, and innovation to boost their overall competitiveness.

### Definition of partners

Samsung SDI manages our supply chains by classifying partners into first-, second-, and third-tier partners. First-tier partners directly engage in our product manufacturing and business execution, and second- and third-tier partners provide raw/subsidiary materials. We specifically define the suppliers of key raw materials and components as primary partners, and provide them with a range of support. In selecting and managing partners, we perform paper-based assessment and due diligence to ensure transparency and fairness.

### Win-Win Cooperation Promotion System



### INTERVIEW

**Hayoung Choi, Professional,**  
 Coexistent Operation Group, Coexistent Cooperation Office

**Q How did you support Samsung SDI for its joint growth efforts and partners for their ESG capacity building in 2022?**

The Coexistent Cooperation Office engages in a wide range of win-win growth activities to lay the basis for partners' sustained growth, spanning technology support to boost manufacturing competitiveness and financial/management support to ensure stable operations. We would like to point out that we expanded support for partners' recruitment efforts to help them tackle labor shortages which exacerbated amid the pandemic and hire outstanding talent. Along with our annual training provided under the Consortium for HRD Ability Magnified Program, we also teamed up with the Industrial Bank of Korea to support partners' job fair booth operation and online recruitment, and signed a multilateral MOU with the Korea Polytechnic College to implement the 'Learning-based Matching' program. We also created the ESG Part under our Purchasing Team to provide partners with ESG support in reducing their GHG emissions and fulfilling social responsibility, and implement on/offline training programs to help partner employees with ESG capacity building.

**Q Is there any memorable feedback from partners in relation to win-win cooperation activities?**

As we recently resumed in-person communications with partners, this provided greater opportunities to share ideas with partners on the outlook of the rechargeable battery industry and SDI's management approach. Our partners were particularly enthusiastic when our CEO directly engaged with them through Q&As and interactive communication. Face-to-face communication with our top management surely helped our partners concur on our approach to win-win cooperation.

**Q Tell us about Samsung SDI's approach to bolstering win-win cooperation with partners.**

While we have focused on developing win-win programs and supporting key partners primarily to lay a stronger basis for win-win cooperation, we will shift gears to vertically expand our win-win cooperation network and establish a win-win ecosystem. Our culture of win-win cooperation will extend from primary first-tier partners to all first-tier partners who do business with SDI and even second- and third-tier partners.



# Value-Chain Partnership

## Partner Code of Conduct

Samsung SDI established the Samsung SDI Partner Code of Conduct in reflection of the RBA (Responsible Business Alliance) Code of Conduct which sets out how businesses should fulfill social responsibility along their supply chains, and shares the Code with partners and requests their compliance with the Code. We guide our partners to voluntarily abide by the Code in their day-to-day routines through annual trainings, meetings, notices, and varying channels while publicizing our policy and improving awareness among internal/external stakeholders including customers, investors, senior management and the procurement department.

## Operating the Samsung SDI Partners' Association

The Samsung SDI Partner Association (SSP) aims to maintain mutually-beneficial partnerships, pursue joint growth, and promote wholesome development in line with the spirit of co-existence and co-prosperity. The SSP consists of the subcommittees of materials, components, and equipment and is launched every two years. As of 2022, the 10th SSP was up and running in its first year. A total of 47 partners joined the 10th SSP to share industry prospects in Korea and abroad as well as Samsung SDI's business outlook and strengthen strategic partnerships. Key activities in 2022 include the virtual SSP general assembly, SSP executive/manager seminars, overseas benchmarking for SSP executives, and subcommittee meetings. Shared Growth Day was also hosted to share innovation best practices, award top-performing partners, exhibit products, and hold procurement consultations with Samsung affiliates to promote joint growth.

## 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 commits to establishing fair trade practices not only in our transactions with first-tier partners but also in transactions made among first-, second-, and third-tier partners, and furthers our efforts to bolster competitiveness across the whole of the industry. We support partners to enter into 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 and through the win-win payment system. We also encourage the use of the standard subcontract agreement between first-tier and second-tier partners, and expand our joint growth activities including ESG support and open bidding for key areas of work.

### Performance in Supporting the Signing of the Fair Trade Agreement

Category	Unit	2020	2021	2022
Samsung SDI – First-tier partners	No. of companies	110	111	112
First-tier – Second-tier partners	cases	129	136	157
Second-tier – Third-tier partners	cases	40	45	54

## 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 are former Samsung SDI executives draw on their extensive field experience, management knowhow and expert knowledge to offer management advice to meet the specific needs of partners. This assists partners in improving their management competency and boosting their overall competitive edge in the areas of productivity, quality innovation, strategy, and marketing to join us on our joint growth journey. In 2022, 17 management advisory tasks were implemented for 14 partners. We also implement the Voice of Partners (VOC) program to collect feedback and complaints from partners and make necessary improvements.

### 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

# Value-Chain Partnership

## Assisting partners with talent recruitment

Leveraging the training system and infrastructure available at the Samsung SDI Training Center, we assist partners with their employee capacity-building. The training curriculum consists of 29 courses on job skills, quality management, process management, and business administration. In 2022, training was provided to 1,249 employees from 103 partners through 60 courses. 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 2022, our recruitment and development support program helped create jobs for 49 persons at two partners. In response to global regulations governing supply chain ESG management and stakeholder needs, we provided environmental management training to help partners bolster their ESG capabilities. This training covered the topics of net zero trends and business approaches, ESG management, occupational health and safety management, and response to product environmental regulations, which was completed by 180 persons from 78 partners.

## Providing financial support for partners

We team up with financial institutions to implement financial support programs for partners and contribute to their stable business operations in so doing. We raised KRW 130 billion joint growth funds with the Industrial Bank of Korea, and the interest income generated goes to help second- and third-tier partners as well as first-tier partners pay interest on their loans. In 2022, 62 partners were provided support worth KRW 101.4 billion through the funds.

## Boosting Win-Win Cooperation

### Improving partners' manufacturing capabilities

We engage in supply chain manufacturing innovation tasks to support partners to bolster their manufacturing capabilities. In 2022, we worked with Sangsin EDP which produces CDIs (Current Interrupt Device) for cylindrical battery and undertook on-site innovation activities at the company's request to establish a reliable supply chain system in preparation for volume increases. We set a goal of improving quality defect rates and implementing the 3R5S initiative to ensure reliable quality, and performed on-site reviews and identified tasks with the help of a third-party consultancy and Samsung SDI's manufacturing experts. Key improvements identified and implemented include reducing lot replacement times, switching to a new material for equipment parts, and changing oil components for overall equipment efficiency improvement, and standardizing raw material slitting and changing insulation design dimensions for defect improvement.

### Innovation Task Execution Outcomes in 2022

Category	Overall equipment efficiency improvement	Quality defect rates improvement	3R5S	Total
No. of tasks identified	7	7	3	17
No. of tasks completed	7	6	3	16 <sup>1)</sup>

1) 1 task not completed due to delays in technology development

### Supporting win-win smart factory development

Since 2021, we have supported our small/mid-sized partners to build their smart factory in conjunction with Samsung Electronics and Samsung Electro-Mechanics with an aim to boost their shop floor competitiveness. This helps them deploy ICT-connected operational systems and manufacturing automation systems for their manufacturing facility while elevating their innovative manufacturing mindset and boosting quality and productivity. We have supported eight partners since 2022 and will complete this program in August 2023.

## Operating the benefit sharing system

The benefit sharing system aims to facilitate win-win cooperation with SMEs. Under this program, companies placing and landing orders collaborate in diverse ways to attain the set common goal, and share the benefits generated accordingly. In the first and second half of 2022, we identified seven tasks with seven partners and worked together with them to implement these tasks. This helped partners reduce defects, increase production quantity per man hour, and improve quality, boosting their productivity and manufacturing competitiveness as a result.

## Signing the autonomous agreement to narrow the gap between large businesses and SMEs

In November 2022, Samsung SDI signed the autonomous agreement to narrow the gap between large businesses and SMEs with the Korea Commission for Corporate Partnership and our partners. Under this agreement, we will operate joint growth partnership programs valued at KRW 155.2 billion over the next three years. This program will help our partners across wide-ranging areas including joint investment technology development, smart factory distribution and operation, and productivity improvement. In fact, we signed the 'agreement to resolve the wage gap through innovation' back in 2019 to reduce wage disparities between large businesses and SMEs and pursue mutual growth. We will continue with our joint growth efforts by working even closer with our partners and offering them with effective assistance.



Ceremony to sign the autonomous agreement to narrow the gap between large businesses and SMEs

# 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 with Samsung's core competencies and resources. In 2022, we operated employee-involving programs aligned with our unique business characteristics, and our flagship teen education programs that support capacity-building for our future generations in conjunction with Samsung affiliates.

Going forward, we will partner with Samsung affiliates to jointly operate Samsung's leading CSR programs and bolster the expertise and social contribution of respective programs.

### CSR Goal

Provide learning opportunities to **3 million** elementary/junior/high school students nationwide over the next **decade** under the Blue Elephant program

## Samsung-wide Programs

### Samsung SW Academy for Youth

Six Samsung affiliates<sup>1)</sup> including Samsung SDI operate Samsung SW Academy for Youth to offer a year of theoretical and practical training to help youth wishing to become SW developers improve their competitiveness in the job market. Trainees learn algorithms, coding, web technology and more in the introductory course, and develop real-world capabilities to use AI, IoT, and other 4th Industrial Revolution technologies in the advanced course. A total of 4,732 persons completed training from the first to the seventh batch, and 3,575 of them landed a job in the IT, financial and other diverse sectors with 76% employment rate as of the end of 2022. In 2023, nearly 2,100 students of the 8th and 9th batches are learning at the Academy.

1) Samsung SDI, Samsung Electronics, Samsung Display, Samsung ElectroMechanics, Samsung SDS, and S-1



Samsung SW Academy for Youth

### Samsung Junior SW Academy

Launched back in 2013, Samsung Junior SW Academy provides education that combines software and artificial intelligence to help teenagers develop competency in merging knowledge from different fields to meet the talent needs of the emerging AI era. This assists current school teachers in receiving training during school vacation twice a year to improve their SW and AI competency while offering learning content, educational programs, and practice kits developed in partnership with educational experts to help schools provide high-quality SW and AI education. Students also receive special lectures and mentoring from Samsung employees to design their future career pathways. Nearly 3,600 teachers and 150,000 teens joined this growth journey along with Samsung Junior SW Academy as of 2022.



Samsung Junior SW Academy



## Together with Community

### Samsung Dream Class

Initially started as a combination of afterschool classes and summer camps back in 2012, Samsung Dream Class launched the online platform-based Samsung Dream Class 2.0. This provides three types of learning content - career path guidance to help teens discover their talent and dream and explore various career pathways, future competency development in the areas of global communication, coding, mathematics, and reasoning, and finally, school curriculum learning essential for bringing one's dream to life.



Samsung Dream Class

### Stepping Stone of Hope

Teens raised at care facilities, community homes or foster care homes, rather than by their own family, should live on their own when they turn 18 years old as their statutory protection period terminates. Samsung Stepping Stone provides teens preparing for their self-reliance with residence and customized learning. In collaboration with local governments and NGOs, we offer them residential spaces – one room per person – for up to two years and support them with self-reliance programs covering education and job information. Samsung operated eight centers in Busan, Daegu, Gangwon, Gwangju, Gyeongnam, Chungnam, Jeonbuk, and Gyeonggi, and opened another center in Gyeongbuk in April 2022. In 2023, new centers will open in Jeonnam and Chungbuk to establish a network of 11 'Samsung Stepping Stone of Hope' centers nationwide.



Stepping Stone of Hope MOU signing with Chungbuk

### Blue Elephant

As cyber violence affecting teens is spreading further amid the increased use of smartphones and IT devices, Samsung affiliates have worked to prevent cyber violence among teens since 2020. The Blue Elephant project was inspired by such commitment: the color blue symbolizes calmness and stability and elephants are known for their behavior to group together to protect themselves from predators. Under the Blue Elephant program, we help teens learn how to prevent and cope with cyber violence, provide psychological counseling for victims to regain their emotional stability and recover, and launch campaigns to eliminate cyber violence.

The Blue Tree Foundation and Samsung provided 660,000 elementary, junior, and high school students with online and offline prevention training as of 2022 on a cumulative basis, along with support for academic research to resolve cyber violence issues. In 2022, we engaged in wide-ranging activities – on-site preventive training and campaigns, online forums, employees' talent donation, and discussions for the amendment of the school violence prevention law – in search of more effective ways to keep cyber violence at bay.



Campaign to protect teens from cyber violence in 2022



# Togetherness with Community

## Employee-involving Programs

### Dream Walking School Forest

Samsung SDI implements wide-ranging CSR programs to achieve net zero emissions and resolve particulate matter pollution, bringing us one step closer to a sustainable future. CO<sub>2</sub>, particulate matters (PM), and other air pollutants give rise to increases in average global temperature and cause global warming as a result, posing highly critical social challenges of undermining the health and living environment of our future generations. Dream Walking School Forest aims to create forests that help reduce particulate matter emissions for elementary schools in the vicinity of our worksites through the funds raised in proportion to the steps taken by our employees. This program is operated for three years for each school and consists of outdoor forestation in the first year, indoor forestation in the second year, and environmental training in the third year. In 2022, a total of 6,933 Samsung SDI employees participated in this program for 32,261 hours for Yangcheong Elementary School in Cheongju. This helped prevent hazardous gases and particulate matters from penetrating from the outside to create a safe and pleasant environment for 457 students and 33 school staff, and was also effective in reducing harmful gases and PM levels across the local community.



School Forest signboard hanging ceremony at Yangcheong Elementary School in Cheongju

### Hands-on Environmental Education Book

As part of our educational donation initiatives for children and teens, we donate environmental education books that we directly develop. In 2022, over 1,600 employees volunteered to produce a pop-up book on the importance of water and water circulation. The copies of this book were donated to children at local children centers across the nation. In 2023, we will distribute environmental education books with updated content to help our future generations value mother nature.

### Hands-on Nanum Green Campaign

As an eco-friendly energy company, Samsung SDI runs an upcycling program: our employees volunteer to make beaded jump ropes out of recycled waste plastic and donate them to children at local children centers nationwide. In 2022, nearly 1,000 employees joined this program to help kids stay healthy all while caring for the environment.



Hands-on Environmental Education Book

### SDIHU Samsung SDI Newborn Baby Program

Our Hungary corporation partners with a group of mothers in Göd where it is based to provide gifts to newborn babies under the 'Samsung SDI Newborn Baby Program'. Mothers made eco-friendly supplies for newborns with recycled and naturally-derived materials and packaged special gift boxes from SDIHU and donated them more than 450 families since Feb, 2021. Going forward, we will explore even more CSR programs in the mutually-beneficial journey that we take along with our communities.



SDIHU Samsung SDI Newborn Baby Program

### SDIBS Samsung SDI Running and Walking Week

Our Austria corporation celebrated the 'Samsung SDI Running and Walking Week' for five days between September 23 and 30 2022. This idea was initiated amid COVID-19 which banned all sports events since 2020 and was done in the years 2020, 2021 and 2022. 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 1.262,00 euros raised as such was donated to the Styrian pediatric cancer treatment body council which helps children with cancer.



# 4. ACCOUNTABILITY IN VALUE-CHAIN

## SCM Risk Management

Created the ESG Part under the Purchasing Team

Expanded third-party audits on conflict mineral smelters & refiners

## Labor · Human Rights

Blind surveys on employees related to human rights risks

## Talent Development

Hosted Tech & Career Forum

## Organizational Culture

Facilitated communication with employees

## 2022 KEY ACHIEVEMENTS

# SCM Risk Management

## Our Approach and Management Plan

To establish responsible supply chains, we operate the S-Partner Certification system to preemptively manage safety, environmental, ethics, human rights, and other ESG risks that may occur along our supply chains. We also provide training on regulatory amendment trends concerning labor and environmental issues to support our partners to faithfully fulfill their social responsibility. In line with the emerging social challenges of environmental pollution and human rights violation that stem from the raw material extraction process, we perform risk assessments on our mineral supply chains and step forward to join global conflict mineral initiatives along with our customers and partners.

### Creating an ESG organization for procurement operations

In 2022, we created the ESG Part under the Procurement Strategy Group to systematically fulfill our supply chain social responsibility. This new organization sets the course and takes action in improving ESG risks that affect our domestic and overseas partners in alignment with our new sustainability management strategy. Its priority tasks include managing supply chain carbon emissions and advancing third-party due diligence to respond to global ESG regulations as well as bolstering partners' ESG capacity building to lay the operational foundation.

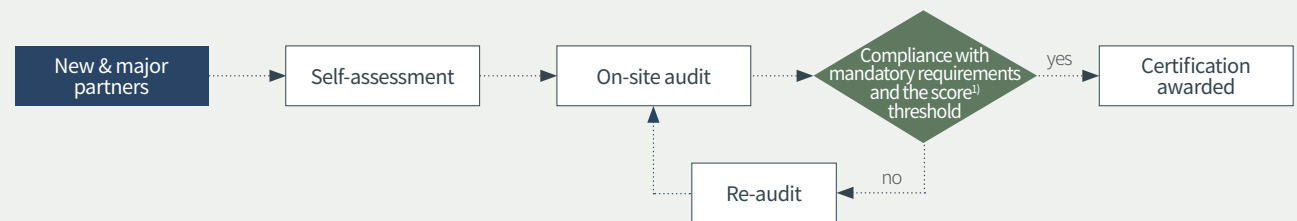
## Managing Partners' Sustainability

### S-Partner Certification system

Samsung SDI has been operating the S-Partner Certification system since 2009 to ensure the sustainability of our supply chains. This system allows us to assess and certify 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. 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 from 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 2022, on-site audits were conducted on 23 domestic and 12 overseas partners, and 37 overseas partners received paper-based audits instead amid COVID-19. In 2023, we plan to conduct audits on 39 domestic and 28 overseas (Malaysia, Vietnam, Japan, Thailand, and others) partners.

### S-Partner Certification Assessment Process



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



# SCM Risk Management

## Progress made on S-Partner Certification Assessment

Certification Assessment Outcomes (unit: No. of companies)

Category		2020	2021	2022
Domestic	Certification terminated	24	26	20
	New partner	2	4	3
	Re-audit	3	3	0
	<b>Total</b>	<b>29</b>	<b>33</b>	<b>23</b>
Overseas	Certification terminated	26	37	45
	New partner	-	5	4
	Re-audit	-	0	0
	<b>Total</b>	<b>26</b>	<b>42</b>	<b>49</b>
Total	Certification terminated	50	63	65
	New partner	2	9	7
	Re-audit	3	3	0
	<b>Total</b>	<b>55</b>	<b>75</b>	<b>72</b>
Partners who failed to meet the certification criteria		0	0	0

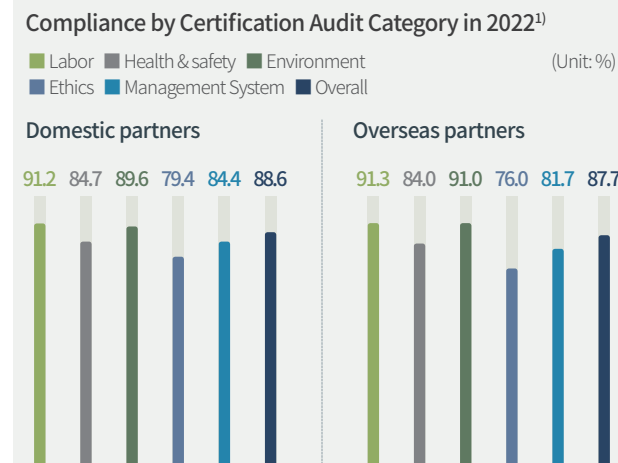
Certification Assessments and Corrective Actions Taken (unit: No. of companies)

Category		2020	2021	2022
Partner assessments	Partners who are subject to assessment	63	75	72
	Partners who received actual assessments	59	75 <sup>1)</sup>	72 <sup>1)</sup>
Corrective actions taken for identified issues	Partners identified as in need of improvement	55	38	23
	Partners who submitted improvement plans	55	38	23
Partners whose contract was terminated due to corruption		0	0	0

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

## S-Partner Certification Audit results and improvements identified in 2022

The S-Partner certification audits performed in 2022 revealed that no significant incidence of non-compliance occurred in such essential categories as ban on forced labor, ban on child labor, wages and compensation, environmental approval, hazardous substances management, and occupational safety. For cases of non-compliance identified through audits, we ensure immediate improvements are made or improvement plans are developed and implemented depending on the significance of the issue at hand and possible improvements. We will expand the number of participants in our partner training conducted on S-Partner requirements and strengthen on-site audits for categories with higher incidences of non-compliance such as occupational safety and hazardous substances management.



1) Compliance rates verified through on-site audits

### CASE

#### Performing audits on partners of overseas corporations in 2022

S-Partner audits help us identify and prevent risk on the partners of our overseas corporations as well as our domestic operations. In 2022, S-Partner audits were performed on the suppliers of key raw/subsidiary materials at our Vietnamese corporation in July and at our Malaysian corporation in October. Personnel from the Headquarters and these corporations teamed up with third-party professionals to conduct audits in the categories of labor, health/safety, ethics, environment, and management system. The audit findings revealed that some partners were in need of continuous in-process environmental improvements and safety-related on-site improvements as well as worker training. There were also partners who lacked documented regulations governing the rules of labor and disciplinary procedures or had incidences of excessive overtime work. These partners prepared and submitted their improvement plans based on audit results, and will be monitored for their implementation of improvement measures. Such audits jointly conducted by employees from the Headquarters served to nurture audit personnel at the corporation level, laying the basis for respective corporations to take the lead in operating the overall management process spanning partner selection, audits, and follow-up measures.



S-Partner certification assessment on partners



# SCM Risk Management

## Responsible Minerals Sourcing

### Responsible sourcing policy

Samsung SDI stipulated our responsible minerals sourcing policy to source minerals in a sustainable and ethical way and establish responsible sourcing practices across our supply chains. In compliance with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from CAHRA, we strictly ban the use of minerals sourced in a way that could cause adverse impact from the socio-environmental aspects in relation to funding armed groups, serious human rights violation, health or safety risks, and environmental destruction.

### Supply chain risk management for minerals

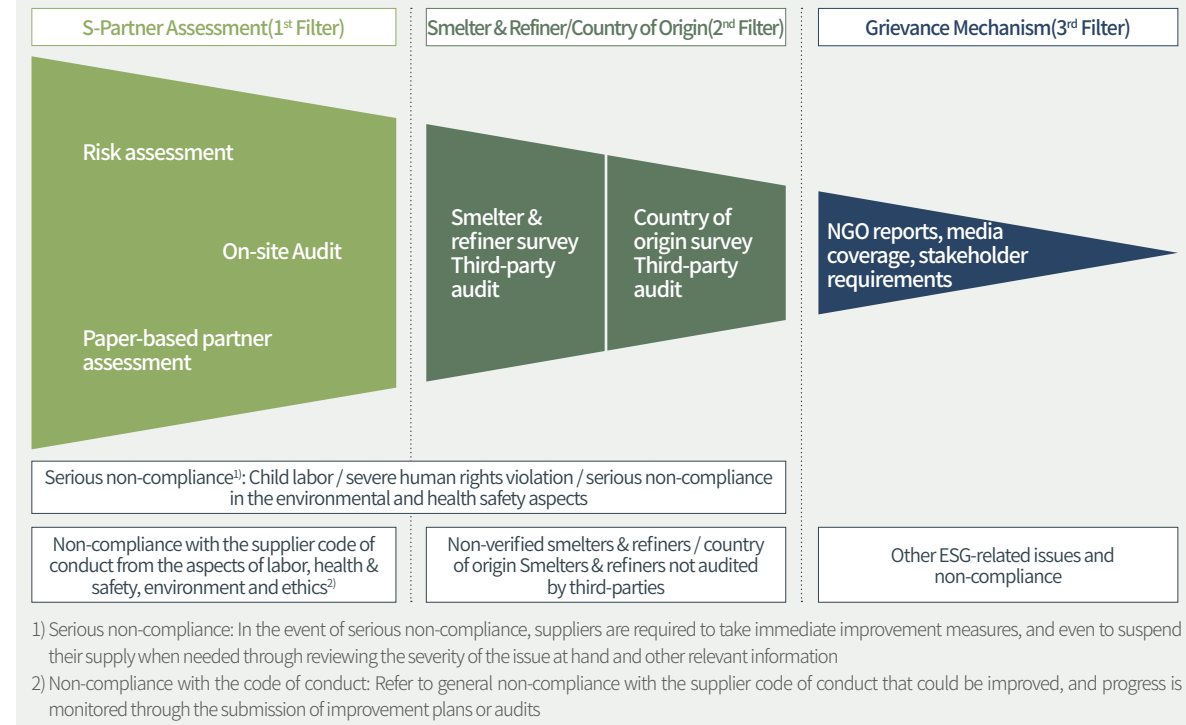
To manage potential risks along our mineral supply chains, we implement our management system established in line with the 5-Step Framework of the OECD Due Diligence Guidance for Minerals. We conduct regular surveys to ensure supply chain traceability and identify socio-environmental risks, and recommend all our smelter & refiners to verify they are conformant with the RMAP (Responsible Minerals Assurance Program) of the RMI (Responsible Minerals Initiative). We also receive due diligence performed by independent third-party organizations for our supply chain sourcing of such critical minerals as cobalt, nickel, and lithium.

Step 1 Establish management systems	Step 2 Identify & assess risks	Step 3 Manage risks	Step 4 Conduct due diligence	Step 5 Publicly report on due diligence
Adopt a policy for responsible mineral supply chains and establish a management system, provide internal capacity-building training	Conduct upstream surveys, perform risk assessments on supply chains and suppliers	Report risk assessment results to senior management, develop and implement risk mitigation plans	Perform third-party supply chain audits, support suppliers to become RMAP-conformant under the RMI	Disclose due diligence results and activities through sustainability reports and on our website

### Risk due diligence system

We operate a risk due diligence system which applies to all our suppliers of raw and subsidiary materials. Based on this, we strengthen the chain of custody while identifying risks along our mineral supply chains and implementing risk mitigation plans with suppliers.

#### Samsung SDI's Supply Chain Risk Due Diligence Process



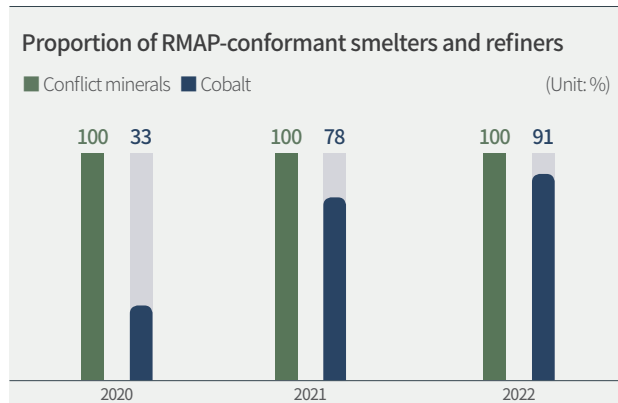
1) Serious non-compliance: In the event of serious non-compliance, suppliers are required to take immediate improvement measures, and even to suspend their supply when needed through reviewing the severity of the issue at hand and other relevant information

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 management

In line with the mounting importance of socio-environmental risk management in the mineral extraction and sourcing process, the necessity for supply chain management is rising for even more diverse minerals. Samsung SDI includes in our scope of management all minerals for which human rights violation or environmental destruction issues are raised in the extraction and sourcing process in addition to 3TG (Tin, Tantalum, Tungsten, and Gold) mined in the Democratic Republic of the Congo and its adjacent countries to ensure we comply with the principles of responsible minerals sourcing. For 3TG conflict minerals, we make sure that all our partners source minerals exclusively from smelters & refiners certified to be conformant with the RMAP (Responsible Minerals Assurance Process). As to cobalt, 21 out of 23 smelters & refiners became RMAP-conformant, up by three from the previous year.



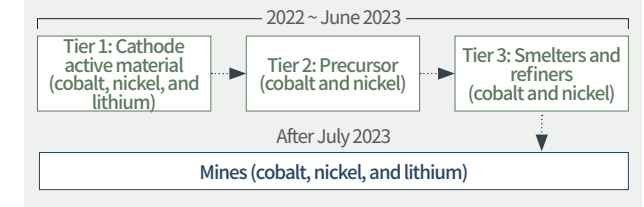
## Samsung SDI's List of Cobalt Smelters and Refiners

No.	Cobalt Smelters & Refiners	Country
1	Dynatec Madagascar Company	Madagascar
2	Chemaf Etoile	DRC
3	Zhejiang Zhongjin Greatpower Cobalt Co.,Ltd	China
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
13	NORILSK NICKEL HARJAVALTA OY	Finland
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

## Third-party audits

To ensure traceability along our mineral supply chains and verify socio-environmental risks, Samsung SDI has conducted third-party audits since 2022 on our supply chains of minerals including cobalt, nickel, and lithium that are consumed as key battery raw materials. In 2022, such independent audits were completed on nine partners from first-tier partners to smelters & refiners, including three cathode suppliers, three precursor suppliers, and three smelters & refiners. According to audit findings, none of the minerals we consumed were sourced through ASM (Artisanal and Small-scale Mining) or from mines at increased risk for human rights violation and environmental destruction. Most of our partners, however, were found to be in need of improvement for their mineral supply chain policy, risk management system, due diligence, and overall responsible mineral management process. We will provide guidance so that our partners develop and implement improvement plans for non-conformant areas identified. In 2023, we will conduct third-party audits on smelters & refiners, and use the supply chain mapping results generated as such in expanding our third-party audits to include mines.

### Third-party Mineral Supply Chain Audit Plans



# SCM Risk Management

## Managing Supply Chain Procurement Risks

### Managing supply chain procurement risks

Supply chain risks include risks that may occur in the parts procurement process as well as environmental and social risks that may arise at partners themselves. Samsung SDI's purchasing risk management follows the 4-step process. The Purchasing Team identifies purchasing-related risks in line with the IATF169491 process and investigates risks that may affect Samsung SDI. The risks investigated are assessed for the severity of the resulting impact and their probability of occurrence, followed by the development of risk-specific short/mid/long-term response strategies. In addition, our history database containing risks that occurred previously helps us assess and manage risks expected to arise 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)

### Diversifying our sourcing in North America and establishing production locations

The Inflation Reduction Act (IRA) which took effect in the US in August 2022 gave rise to the increasing demand to move away from China in sourcing critical materials and producing battery components. In response, Samsung SDI is diversifying our sourcing of critical minerals towards North America and countries who entered into an FTA with the US while establishing battery production locations in North America. Work is underway to develop and implement plans to respond to IRA requirements by ensuring the locally-based supply of raw materials on the part of our partners.

### Our efforts to establish a local procurement system in the EU

The EU is increasingly calling for businesses to pursue localization within the EU region for battery raw/subsidiary materials and critical minerals consumed for their EV production, as evidenced in the EU-UK TCA<sup>1)</sup> and the CRMA<sup>2)</sup>. Samsung SDI is increasing our sourcing of key raw/subsidiary materials in the EU, and consulting local partners to secure critical minerals in the EU region.

- 1) EU-UK TCA (Trade and Cooperation Agreement) : EVs made in the EU and exported to the UK are eligible for tariff exemption on the condition that their battery components originate in the EU
- 2) CRMA (Critical Raw Materials Act): Regulations that aim to diversify the sources of strategic raw material import to gradually expand EU's own capacity for the extraction, processing, and recycling of these strategically important materials and not to exceed 65% in its consumption of each strategic raw material from a single third country by 2030 to reduce EU's dependence on such raw materials.

### Responding to the strike staged by the Korea Cargo Workers Union

In November 2022, the Korea Cargo Workers Union staged a strike, and the resulting stoppage caused disruptions to the supply of raw materials. Samsung SDI secured stocks in advance in our in-house and external warehouses as well as vehicles and drivers operable even during the walkout. Until the strike ended on December 9 that year, we operated a situation room and activated a daily cargo volume check system.



Non-compliance with human rights standards **ZERO**

# Labor · Human Rights

## Our Approach and Management Plan

Samsung SDI endorses the fundamental conventions of the ILO (International Labor Organization), the UN Universal Declaration of Human Rights, the OECD Guidelines for Multinational Enterprises, the UN Global Compact's 10 principles, the RBA (Responsible Business Alliance)'s Code of Conduct and other globally-recognized labor/human rights standards while abiding by the laws and regulation of countries and regions where we operate. We respect universal human rights, the freedom of association, and political/religious/personal freedom while strictly prohibiting discrimination and harassment on the grounds of gender, race, religion, disability, origin, and sexual minority. We will take appropriate action to prevent and mitigate adverse human rights impact that may affect our varying stakeholders.

## Respect for Human Rights

### Protecting diversity and prohibiting discrimination

Samsung SDI respects the diversity of employees and strives to offer all our employees equal opportunity. We ban discrimination on the grounds of gender, nationality, race, religion and cultural background in recruitment, assessment, promotion, and compensation. We also manage a range of diversity metrics including the proportion of female managers to further nurture our female workforce. To minimize conflict while maximizing synergy among diverse employee groups, we encourage that organizational leaders and their members debate diversity issues on a semi-annual basis and more often.

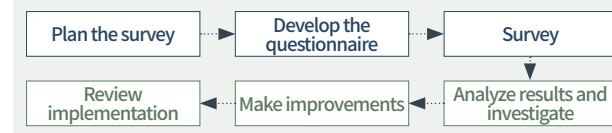
### Preemptively managing labor/human rights risks

To prevent potential human rights risks that may affect our stakeholders in our business conduct, we identify worksites located in vulnerable human rights/labor conditions to make sure risk factors do not occur. Our worksites are verified for their compliance with human rights standards concerning child labor and compulsory labor, working hours, wages and benefits, humanitarian treatment, anti-discrimination/harassment, and freedom of association either under the supervision of the Headquarters or through self-checks. In response to the amendments made to applicable laws, we give notices and make necessary institutional improvements to continuously advance human rights protection.

For 15 overseas corporations, regular self-assessments are made each year to ensure compliance with local labor regulations for working hours, and wages, non-discrimination, forced labor, labor contract, and maternity protection to preemptively identify and manage risks to underscore the importance of advancing human rights and compliance management.

We conduct company-wide blind surveys to prevent human rights risks for employees at our entire domestic operations. The blind survey is supervised by the Headquarters and covers the topics of verbal/physical violence, alcohol consumption, sexual harassment, mental health, safety accidents, and communication. The results are communicated to respective worksites to base their efforts to perform internal verifications to develop and implement measures and prevent and address human rights risks in so doing.

### Blind Survey Process



### 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 concern is submitted, this is addressed depending on the severity of the issue at hand in compliance with internal guidelines including those governing disciplinary actions. To raise human rights awareness and prevent any potential human rights risk, we provide company-wide human rights training to prevent sexual harassment, improve perceptions on disability, and build a culture of mutual respect in response to the enforcement of the Anti-Bullying Law. Our training curriculum is updated each year to keep up-to-date with human rights-related regulatory amendments, human rights impacts identified internally, and changing employee 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 made available on the It Basic bulletin board of our in-house website. This provides our employees with information on behavioral precautions and proper responses in preventing verbal violence and improving drinking practices on an on-going basis to elevate their awareness on the importance of protecting and respecting human rights.

### Grievance handling channels and their operation

In operating internal online/offline grievance handling channels, we extended the scope of concerns raised to include grievances, requests, and suggestions on working conditions, which exceeds the requirements set in the UN Global Compact's 10 principles. Such grievances can be submitted anonymously, and relevant principles including the prohibition of retaliation against whistleblowers are specified in the 'obligation to comply with the employee code of conduct' to ensure the transparent and fair operation of grievance handling channels. Work-related grievances or suggestions for improvement raised by employees either anonymously or under their real names as they wish are handled within 24 hours in principle, and relevant departments ensure prompt response to respective issues. In 2022, a total of 1,402 grievances and inquiries were submitted and were all handled.

# Labor · Human Rights

We also established a separate internal online whistleblowing channel. If concerns are raised over human rights violation, we handle them promptly in accordance with our grievance handling process set in line with the grievance mechanism of the UN Guiding Principles on Business and Human Rights (UNGPs) and continue with monitoring to prevent their reoccurrence while eliminating potential risk factors.

## Employees' Representative Body

At Samsung SDI, two domestic and five overseas 'Labor Unions' are up and running. In Korea, our 'employee code of conduct' stipulates that we respect the freedom of association, the right to collective bargaining, and the right to collective action. To put the health and safety of our employees first in building mutually-beneficial, cooperative labor relations, we uphold the three basic labor rights in making negotiations on working conditions, and sign collective and wage agreements based on the agreed-upon negotiation outcomes. Pursuant to the Act on the Promotion of Workers' Participation and Cooperation, our six domestic and four overseas 'Works Council' convenes at least once every quarter depending on the characteristics of each worksite, and labor representatives to the Council are elected by employees themselves through direct secret voting. The Council makes decisions on the agenda items proposed by respective worksites, which span grievances and HR system improvements in addition to issues related to working conditions. Our overseas corporations operate labor unions and/or councils in conformity with local labor laws to abide by applicable laws and regulations, and engage in consultations to improve working conditions through communication based on mutual respect between labor and management.

## Providing a Great Work Place

### Striking the right work-life balance

We provide a wide array of support programs for our employees to strike the right work-life balance and fully engage in their work. For instance, we have introduced flexible hours to enable employees to manage their own work schedule as well as reduced work hours. We also allow our employees to work from home up to four days a week when possible. We abolished minimum work hour requirements in 2022 and have since introduced hourly annual leave to give our employees greater autonomy with their work schedule arrangement.

Our work-life balance support programs apply equally to all employees including both contract and dispatched employees, irrespective of gender, to meet their childbirth and childcare needs. In 2022, we improved our parental leave program so that our employees could split their entire parental leave period which includes one-year statutory leave and one-year leave that we additionally provide into two. Our parental leave program was also made more flexible by extending the age limit to 12 years old while the statutory age limit is eight year old. Furthermore, we have expanded paternal leave from legally guaranteed 10 days to up to 15 days.

At Samsung SDI, facilities are up and running across our operations to support work-life balance, including maternity protection rooms open for pregnant and breastfeeding employees and in-house daycare centers. On Family Day encourages employees to leave early twice a month. On this day, shuttle bus schedules are brought forward so that employees can go home early and invest in their self-development or spend quality time with their family.

## Improving the quality of life

We operate a range of benefit programs to help improve the quality of life for our employees. In 2022, we expanded support for Samsung SDI e-Library accessible both on online and mobile platforms to provide our employees with a broader spectrum of leisure options and self-development opportunities. With an extensive collection of books, this creates an environment where our employees can read books at any given time and location. Furthermore, we eliminated the limit imposed previously on the size of housings when our employees apply for housing loans taking into account the shifting residential trends.



### 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



### Psychological support

- Provide professional counseling through the Counseling Center
- Operate the mental health clinic



### 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
- Operate fitness centers and physiotherapy clinics

# Talent Development

## Securing Top Talent

### Recruiting talent from diverse backgrounds

Samsung SDI ensures fairness and transparency in our recruitment to give equal opportunity to all applicants irrespective of their backgrounds. We focus on competency in recruiting new hires without considering factors that are irrelevant to individual merit, and also hire on an as-needed basis to bring in top-notch talent who can contribute their accumulated industry experience. Furthermore, we strive to increase the diversity of our workforce by recruiting employees with disabilities and of national merit.

### Securing industry professionals

We work on multiple fronts to identify talented individuals in Korea and abroad and raise our profile as an employer. In 2022, the Tech & Career Forum led by top management was held in Korea and the US to provide job seekers with PhDs who will be the leaders of tomorrow with an opportunity to better understand our business and their potential work descriptions. We also attended the InterBattery Job Fair in an effort to secure industry professionals.



Tech &amp; Career Forum

### Securing global talent

We engage in campus recruiting not only in Korea but also at leading universities in the Americas, Europe, and other regions. In so doing, we recruit top-tier talent in respective fields to establish our global competitiveness. In addition to offline recruiting, we leverage a range of channels, including metaverse job fairs and online one-on-one virtual recruiting, to reach even closer to global talent and secure competent individuals worldwide.

### Nurturing future talent

Samsung SDI operates bachelor/master/doctoral degree courses to nurture talent who will help us build 'super gap' technology competitiveness. In partnership with leading universities in Korea and overseas, we undertake industry-academia projects and pursue open innovation through internships and scholarships to expand opportunities for academia and industry to progress forwards together.



MOU signing to nurture talent with battery expertise

## Employee Training and Performance Appraisal

### Nurturing job experts

We operate tailor-made training courses: we first verify individual job competency levels across all job categories, including development, technology, manufacturing, sales & marketing, and management support, and then analyze areas of expertise in need of development by job category and by individual employee. Our employees set their own learning plans based on analysis results and their capacity-building needs while Samsung SDI provides internal/external job training and online learning available year-round through our in-house training system (SDI Edu Park) to assist employees in bolstering their job expertise. Our EA (Education Agent) program also supports field-driven training in parallel. Our SDI Technology Education Program (STEP) provides technical training to meet our specific needs by job category. In 2022, this systemic technical training, made available in each of the development, process & equipment, quality categories, was conducted on 68 courses and attended by 2,726 employees. Department-level specialized job training is also available, including learning cells and in-house seminars along with EAs, and such training was attended by 14,609 employees. In addition to in-house training, we also conduct master/PhD degree academic training through our partnership with educational institutions to nurture job experts in the development and technology areas. We assist employees in acquiring internationally/nationally-recognized qualifications in the fields of manufacturing, quality, purchasing, finance, workplace safety, and infrastructure as part of our multi-faceted efforts to support all employees to evolve into experts in their own fields. Such job training is followed by surveys to identify participants' satisfaction with training. Respondents provide their feedback on learning outcomes (training content, transfer of training, etc.) and lectures (course, lecturer, etc.) on a scale of one to five, and survey results are used to analyze the effectiveness of our training and continuously improve our training courses.

# Talent Development

## Bolstering global capabilities

The growing global market and our worldwide business expansion underscores the importance of employees' global capabilities. This prompted us to expand support for employees to acquire language certificates for English and Chinese and more. In addition to the Foreign Language Residence Hall (5-8 weeks) and intensive courses (1 week) under operation as our global capacity-building courses, we developed easily accessible language courses for employees who can't be removed from their duties for extended periods of time to take courses across varying time ranges, from early morning and lunchtime to nighttime and weekends. This ensures individual employees complete courses based on their own personal schedule and conditions to bolster their global capabilities. In 2022, 7,322 employees attended such courses, and the proportion of employees acquiring advanced language certificates rose from 32% in 2021 to 34% in 2022.

To preemptively cater to increases in expatriates working at overseas corporations and in employees traveling overseas for business, we continue to provide training on such strategically important languages as Hungarian, Vietnamese, and Malay used in countries where our corporations are located. We operate the work abroad program (field experts and others) to secure top talent: we provide employees with an opportunity to work at one of our overseas corporations for a set period of time so that they could enhance their working-level global capabilities. For personnel working at overseas corporations, we offer introductory training and leadership training held in Korea to help them with capacity-building.

## Operating the Technology Training Center

Our Technical Training Center provides equipment/process technical staff with systemic training to develop common competencies

and technical expertise. Tailor-made level-specific technical training is conducted from introductory to practical levels to help strengthen job competencies and nurture technical experts. This Expert training produced nine experts in 2022 and 54 experts on a cumulative basis to date. To effectively operate the training curriculum from theoretical understanding to hands-on practice, each trainee is provided with their own training kit containing equipment made of core components and modules that are deployed in real-life conditions. Best practices developed to address equipment errors that occur in the field are identified and disseminated across the board, along with the 'component technology expert course' to resolve issues through self-initiated learning on core equipment components. The 'process & equipment expert course' is also provided to help resolve equipment-related challenges and chronic process quality issues so that we could assist our employees in developing unsurpassed expertise in their field. Our Technology Training Center continues to uncover new content and develop technical training courses, driving Samsung SDI's efforts to secure next-generation technology competitiveness and improve productivity.

## Performance appraisal system

Our annual employee performance management is aligned with competency assessments conducted in line with Samsung's standard competency requirements and with performance appraisals made based on individual MBO. Leaders and their members set mutually-agreed work goals and capacity-building plans, and the year-round frequent feedback process facilitates members' goal attainment and supports their capacity-building. This also comes with the appeals process for employees who disagree with their performance review to appeal their performance appraisal to make our performance appraisal system more acceptable. Our peer review program was designed to facilitate collaboration and communication among employees working together through mutual feedback. For leaders who have significant influence within a given organization, we perform 360-degree leadership assessments and provide feedback. Such assessment results provide the

baseline to determine compensation and promotion. To ensure greater fairness, we also refer to other diverse feedback in operating training programs that meet the needs of employees and in selecting leaders and key personnel.

## Retiree support system and program

Samsung SDI operates the Career Consulting Center (CCC) to provide outplacement services that help employees prepare for their after-retirement life. These services consist of individual assessments and life/career designs that leverage standardized analytics, outplacement training, career consulting, and job matching support made possible through the Center's extensive network. The Center informs employees nearing their retirement of outplacement services through its online bulletin board and handouts as specified in the Elderly Employment Act. This ensures that employees gain information in advance on outplacement services and seek further information through interviews when needed while using such services to meet their distinctive needs.

### 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

## INTERVIEW

**Haewon Park**, Professional,  
Employee Engagement Group, People Team

**Q What are the most noticeable changes in SDI's corporate culture in 2022?**

The most noticeable one would be increased communication between the Company and employees. We established a company-wide online broadcast system for top management to provide quarterly updates on our business operations and heed the voice of employees to identify necessary improvements. We also hold lunch discussions led by senior management to gather feedback from field operations and our reverse mentoring program named Gen.Z mentoring under which young employees become mentors for top management. Such changes produced tangible outcomes as we saw a 14-point year-on-year increase in the item 'Our senior management takes the time to collect employee feedback and resolve their grievances' in the SCI survey conducted in September 2022.

**Q Is there any specific characteristic of Samsung SDI's corporate culture that makes you feel proud?**

I would like to point out that a family-friendly culture has been established as an integral part of our corporate DNA. We have a range of support programs – absence, leave, and reduced work hours – to support work-life balance, and our semi-monthly Family Day ensures our employees leave early to enjoy leisure with their family and friends. To promote employees' sense of belonging and pride, each worksite hosts family invitation events on Children's Day, along with 'Family Outing' as another family invitation program.

**Q Please tell us about how you're going to improve Samsung SDI's corporate culture and what your priorities will be.**

Corporate culture doesn't change overnight. We will continue to improve the way we communicate and work, and provide a wide spectrum of employee experience programs to help them lead a healthy and flourishing life at SamsungSDI.

## 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 shared growth through communication and collaboration. To this end, we operate the Change Agents (CA) program to plan and execute corporate culture improvement tasks at the department level on an annual basis, and appointed 298 CAs in 2022. These CAs roll out department-level activities to create a top-tier organizational culture, and facilitate motivation and engagement to drive employees for performance generation in line with the five goals of fair appraisal, team member development, open communication, improved work efficiency, and better collaboration. Such CA activities help our competent global talent improve their work satisfaction and better assimilate themselves to their new environment.

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

**Fair appraisal**

- Improve appraiser competency through strengthened appraisal training
- Establish the procedural fairness of the appraisal process and improve the acceptance of appraisal outcomes by expanding appraisal interviews concerning interim appraisals for process management and feedback

**Team member development**

- Select department-level EAs (Education Agent) to provide customized job-specific training and promote learning led by working-level staff such as learning cells and in-house seminars
- Create a career market for employees looking to relocate to apply for the department of their choosing to aid in employees' career development

**Open communication**

- Expand discussion infrastructure to facilitate the free-flowing exchange of ideas and create a culture of debate
- Facilitating communication through regular town hall meetings between top management and all employees

**Improved work efficiency**

- Identify and award best practices of improving work efficiency to disseminate a culture of encouraging employees to fully engage in high value-added work
- Create efficient meeting practices by reducing meeting durations and unnecessary attendance and streamlining meeting materials

**Active collaboration**

- Expand interactions among relevant departments to create a culture of cross-departmental collaboration
- Operate a collaboration project process to engage relevant departments to select their collaboration projects and to award those who successfully resolve project challenges

# Organizational Culture

## SCI and HCI surveys

Each year, we conduct SCI (Samsung Culture Index) surveys on employees to identify the strengths and weaknesses of our corporate culture and make necessary improvements. Our SCI score has been above 70 points for the past three years. In 2022, the SCI assessment model was updated to create the three main categories of Engagement, Collaboration, and Pride. Questions in each of these categories help us evaluate our corporate culture for employees' job satisfaction based on their work engagement and personal growth as well as for department/corporate satisfaction based on cooperation and respect. This is followed by the improvement activities to ensure we build a wholesome corporate culture.

In addition, annual HCI (Happiness Care Index) surveys are performed to help employees with mental health management. This enabled our employees to self-check their status of mental health concerning individual happiness and stress management and to verify the results and management guides. If necessary, they may receive one-on-one Mind Care Service provided by professional counselors.

## Facilitating Communication and Collaboration

### Communication with employees

To facilitate communication between top management and employees, our key executive members host 'Open Talk' as our town hall meeting. Employees who can't physically attend these meetings may watch live broadcast meetings on their PCs and participate through text messaging. Through 'Open Talk', we share Samsung SDI's policy and vision on an on-going basis while resolving employee grievances on an as-needed basis and covering such topics as ways to implement communication and collaboration, a culture of efficient working, professionalism, and Samsung SDI's mid/long-term vision from 2022. In addition, weekly lunch discussions serve to collect and respond to varying employee feedback, and Leaders Channel, as our monthly department head meeting, provides an opportunity to communicate Samsung SDI's management and institutional operation and share the information with respective department members. In tandem with this, we operate Gen.Z mentoring, a mentoring program to promote mutual understanding with Gen Z employees as well as leadership training to help leaders develop their communication skills, working to disseminate a culture of free-flowing communication along the way.



Gen.Z mentoring

### Executive communication workshop

With the belief that genuine organizational communication is made possible only when top management takes the initiative, we hosted the executive communication workshop in April 2022 to drive our senior management to change their communication mindset. The workshop was joined by all executive members including key executives to share their ideas on the roles leaders should assume for communication, including setting the stage to participate and speak up, hearing out, proactive improvement, and feedback. This was accompanied by a special lecture given by external experts and subgroup discussions to identify ways to promote free-flowing communication and build a sustainable corporate culture in so doing. Going forward, Samsung SDI will strive to create and facilitate a culture of communication that helps build consensus at all levels.

### Facilitating a culture of collaboration

Each year, relevant departments engage in a variety of collaboration projects to disseminate a culture of collaboration among employees and fuel our growth into a global top-tier business. Collaboration serves to gather together experience and knowledge from different functions to generate never-before-possible performance and synergy while encouraging employees to take interest in and explore work performed outside their own organization to develop their individual competency. We host events at the 4th quarter of each year to share the progress made and outcomes generated under the collaboration projects undertaken for the past one year. Each project is assessed against such criteria as collaboration, competitiveness, creativity and challenging spirit, and exceptional ones are awarded.

# 5. CREDIBILITY IN CORPORATE GOVERNANCE

## Advanced BOD

Created the Sustainability Management Committee under the Board

50% in the proportion of females out of independent directors (two out of four)

## Protecting Shareholder Rights and Interests

Announced our shareholder return policy

## Ethics & Compliance

Opened a whistleblowing website for ethics & compliance management

Created the Global Privacy Office under the Legal & IP Team

## 2022 KEY ACHIEVEMENTS

# Advanced BOD

## Our Approach and Management Plan

The Board of Directors makes decisions on matters stipulated by applicable regulations and the Articles of Incorporation, matters delegated by the general shareholder meeting, and key issues related to Samsung SDI's basic management policy and business execution. We separate CEO and Chair roles and the Chair is appointed among directors – both executive and independent directors – through the decision made by the Board to ensure transparent governance.

### Members of the BOD<sup>1)</sup>

On March 15, 2023, Mee Kyung Lee, an expert in environmental management, was appointed as a director at the 53rd General Shareholder Meeting to improve the diversity of the Board and strengthen the expertise of our ESG management.

#### 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		
	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		
	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	Member of the Management Committee		

#### 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 Compensation Committee, and the Independent Director Candidates Recommendation Committee Member of the Audit Committee, the Related Party Transactions 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 Related Party Transactions Committee Member of the Compensation 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		
	Name	Mee Kyung Lee	Gender	Female
	First appointment	Mar. 15, 2023	Expertise	Climate change and environment
	Career	President, Korea Green Foundation		
	Role within the BOD	Chair of the Sustainability Management Committee Member of the Audit Committee, and the the Compensation Committee		

1) Board members as of Mar. 15 2023

\* New appointment: Mee Kyung Lee was appointed as an independent director at the 53rd General Shareholder Meeting held on Mar. 15, 2023

\* Directors assuming multiple positions: Jong Sung Kim, an executive director, serves as a non-executive director at Samsung Display, Won Wook Choi, an independent director, serves as an independent director at LIG Nex1, and Mee Kyung Lee, an independent director, serves as an independent director at HYBE

\* Average BOD tenure: 2.9 years as of Jun. 30, 2023



# Advanced BOD

## Appointment of the BOD

**Board Composition Policy**

Independence

Exclude those who engaged in the Company's commercial matters for the recent 2 years, family members of the Company's largest shareholder and executives, and employees working at corporations that have major interests in Samsung SDI from the appointment of independent directors

Diversity

Proactively consider diversity factors in nominating director candidates, including gender, race, religion, ethnicity, nationality, cultural backgrounds, and expertise

Expertise

Consider extensive knowledge and experience in the areas of management & economy, law, electronic engineering, risk management, and ESG strategy among others

### Establishing the independence and transparency of the Board

To ensure the independence of the Board of Directors, the Board 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 (Article 382, Clause 3 and Article 542, Clause 8 of the Commercial Act). Specifically, we ensure that independent director candidates meet our independence requirements and exclude those who currently engage in Samsung SDI's commercial matters or have done so for the past two years, Samsung SDI's largest shareholder and his/

her spouse and direct descendants/ascendants, executives' spouse and their direct descendants/ascendants, and employees working at corporations (customers and suppliers) that have major interests in Samsung SDI. The final appointment of directors is made by gaining approval at the general shareholder meeting.

Independent directors constitute a majority of the Board (four independent directors) to hold senior management in check in their business execution and make objective and reasonable decisions. To prevent any possible conflict of interest and ensure that the Board 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 Board

We establish the diversity of the Board to build balance into its composition. In selecting director candidates, diversity factors – gender, race, religion, ethnicity, nationality, and cultural backgrounds – are considered so that we have a balanced composition in terms of backgrounds and expertise. We prioritize those candidates who contribute their broader views and embrace diverse stakeholder perspectives to promote objective decision-making. Our Board diversity policy is specified in our sustainability reports and corporate governance reports. As part of our efforts to improve the diversity of the Board, we brought in one more female independent director to our Board in March 2023.

### Improving the expertise of the Board

We appoint independent directors for their wealth of knowledge and experience in the areas of management & economy, law, electronic engineering, risk management, and ESG strategy in addition to their qualifications as stipulated by applicable laws and the Articles of Incorporation so that our business decisions are made based on expertise across diverse areas.

We provide independent directors with information on agenda items prior to Board and committee meetings so that they can sufficiently review such information and faithfully fulfill their management and oversight roles. We also regularly share with them our quarterly business status and outlook, and actively cater to their requests for information in relation to business decision-making. We also provide them with training to help better understand our business and improve their expertise on Board operations. In 2022, all our independent directors received training on industry outlook, risk management, understanding financial statements, and identifying the status of business operations.

#### Training Provided to Independent Directors

Date	Training Topic
Apr. 26, 2022	<ul style="list-style-type: none"> <li>• EV battery market outlook and our responses</li> <li>• Understanding financial statements</li> </ul>
Aug. 21, 2022	<ul style="list-style-type: none"> <li>• Introducing our Hungary Corporation and touring its battery production line</li> <li>• Introducing our Austria corporation and touring its battery production line</li> </ul>

# Advanced BOD

## Operation of the Board

Board meetings are categorized into regular meetings held at least once every quarter and ad-hoc meetings held when the need arises. Board 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 2022, seven regular meetings and one ad-hoc meeting were held to deliberate and decide on a total of 39 agenda items.

### Attendance in BOD Meetings Held in 2022 (%)

Category	Executive Director	Independent Director	Total
Average attendance	100	100	100

## BOD subcommittees

To help the Board efficiently and professionally fulfill its roles and responsibilities, we operate the six committees of the Management Committee, the Audit Committee, and Related Party Transactions Committee, the Independent Director Candidates Recommendation Committee, the Compensation Committee, and the Sustainability Management Committee under the Board.

In January 2022, the Sustainability Management Committee was created to make decisions on our sustainability management strategy and key activities for the purpose of bolstering our ESG management. In 2023, all committees, except for the Management Committee were composed of independent directors only to ensure objective and transparent decision-making.

## BOD Subcommittees

(as of Apr. 2023)

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

## BOD Performance Appraisal and Remuneration

### Independent director 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 Appraisal System

<b>Quantitative Indicator</b> BOD meeting attendance, number of deliberations made on agenda items, activities at the associated subcommittees	<b>Qualitative Indicator</b> Expertise and understanding of Samsung SDI's business
---	---

## Board 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 outcomes of fulfilling their given 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, 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 2022<sup>1)</sup>

Category	Unit	2022
Net payments made	KRW million	6,344
Total remuneration for executive directors	KRW million	5,986
Total remuneration for independent directors	KRW million	358
Average remuneration per executive director	KRW million	1,901
Average remuneration per independent director	KRW million	90

1) The total remuneration include executive directors who resigned during the fiscal year of 2022.

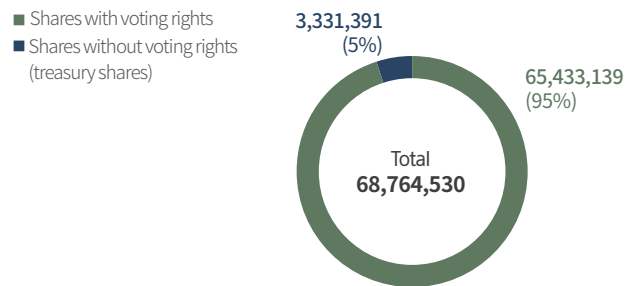
# Protecting Shareholder Rights and Interests

## Increasing Shareholder Value

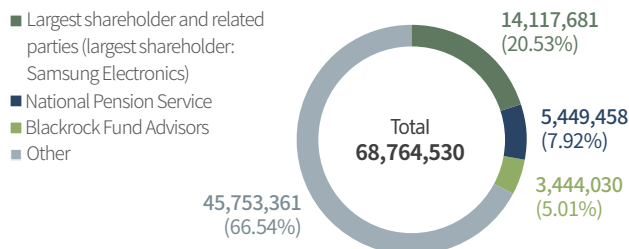
### Shareholder composition and status

Samsung SDI's shares issued include 68,764,530 common shares, and 1,617,896 preferred shares. Out of these, 65,433,139 shares carry voting rights, excluding 3,331,391 common shares owned by Samsung SDI and 1,617,896 preferred shares. Each and every shareholder is given equal voting rights based on the type and number of shares they own.

#### Total Number of Shares (based on common shares)



#### Shareholder Status (based on common shares)



### Announcing our shareholder return policy

To improve the visibility of our shareholder return, we announced our shareholder return policy in January 2022 to pay 5%~10% of our free cash flow each year on top of KRW 1,000 basic dividends over the next three years between 2022 and 2024.

This ensures that we maintain a minimum level of shareholder return even when our free cash flow decreases due to investment expansion, and raise our dividend payouts in proportion to improving free cash flow.

#### Dividend Details

Category	Unit	2020	2021	2022
				1,000KRW +FCF 5%
Dividends per share (common shares)	KRW	1,000	1,000	1,030
Cash dividends	KRW 100 million	669.4	669.4	689.5
Dividend payout ratio	%	11.6	5.7	3.5
Dividend yield	%	0.2	0.2	0.2

## Facilitating Shareholder Communication

### IR activities

To reach out closer to our shareholders and investors, we hold regular conference calls for earnings releases based on tentative earnings and for investor relations reports every quarter. We also actively engage in IR activities for domestic and foreign investors.

We make our corporate website available in English for foreign shareholders, and provide information on our financial status, credit ratings, earnings reports, annual audit reports, and sustainability reports among others. Our quarterly earnings calls are made accessible both in Korean and English webcasts for all shareholders, which are also posted on our website. In addition, materials associated with hosting the general shareholder meeting are made available on our website so that our shareholders may sufficiently review agenda items prior to their decision-making.

# Ethics & Compliance

## Our Approach and Management Plan

Samsung SDI operates distinctive dedicated organizations for systemic ethics and compliance implementation to manage and prevent ethics and compliance risks in line with Samsung's management principle that values regulatory and ethical compliance. Our compliance program spans a range of areas, including subcontracting, trade secrets, anti-corruption, insider trading, data privacy, safety & environment, labor, cartel, and win-win cooperation. We also continue with monitoring and training on ethics, anti-corruption, and compliance to minimize any potential risk of non-compliance that may arise in the course of our employees' business conduct.

## 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 Board, and the Compliance Officer attends all Board and committee meetings to support Samsung SDI's decision-making on compliance matters.

We appoint the compliance chief managers in department head positions and working-level team compliance managers (TCM) to create department-level compliance implementation units to establish and disseminate a field-driven compliance culture. Compliance chief managers assume ownership for compliance management within their own department and encourage members to abide by compliance systems and guidelines and participate in compliance training,

reviews, and other relevant activities. TCMs, newly appointed in 2022 mainly among working-level personnel, support compliance chief managers and take responsibility for team-specific on-site compliance management.

### Compliance control regulations

We operate the Compliance Control Regulations as the highest-level regulations that specify basic procedures for our employees to follow in business conduct as well as overall matters in conformity with the Commercial Act. 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. The Compliance Officer reviews whether our operations conform to these Regulations and assesses the Regulations for their effectiveness, and reports the results to the Board each year.

### Compliance system operation

Samsung SDI operates the Compliance Program Management System (CPMS) to encourage voluntary participation in compliance management and raise employees' compliance mindset. In 2022, we create a dedicated section for overseas corporations within the CPMS and added relevant content to make this system more accessible and useful for our overseas corporations. We also operate a separate technical data request system to prevent possible regulatory non-compliance on the part of our employees in relation to technical data.

## Compliance Management Operations

### Compliance System

Samsung SDI operates a compliance programs to prevent the risk of regulatory non-compliance. We implement a 24/7 system to report contacts made with industry peers to prevent cartel from occurring.

Our internal deliberation committees are also up and running in respective areas to collect feedback from relevant departments and promote close communication. The external sponsorship deliberation committee reviews anti-corruption risks in advance and reports quarterly deliberation results to the Audit Committee. In 2022, all our overseas corporations established their own sponsorship deliberation committee to reinforce their anti-corruption risk management process. We also created the related transaction deliberation committee to advance our related transaction risk management process and improve transparency in doing business with affiliated companies.

Furthermore, we operate assessment and award programs to incentivize employee's voluntary implementation of compliance management and establish compliance management as an essential part of our corporate culture. The compliance index is considered in executive performance assessment, and its detailed assessment items include compliance training and test, message dissemination, self-check, and voluntary theme-based department reviews. The SDI Global Annual Awards has been hosted since 2022 where our CEO directly recognizes employees and/or departments for their contribution to creating and establishing a compliance culture. In 2023, compliance assessment items – employees' implementation of their compliance obligations and our compliance system and completion of compliance training – were included in conducting organizational assessments on business divisions to ensure these compliance metrics are tied to employee incentives.



## Ethics & Compliance

### Compliance review and monitoring

Each year, regular reviews are made for departments at increased risk for non-compliance to verify their regulatory and contractual obligations and reflect the results in future trainings. We analyze internal/external trends and perform non-routine reviews on regulations governing trade secrets, subcontracting, and win-win cooperation to prevent and manage relevant risks. For areas requiring year-round risk management, compliance reviews are integrated as requirements in the decision-making process to prevent regulatory non-compliance. Each compliance implement unit also performs voluntary department-level, theme-based reviews under the supervision of compliance chief managers and TCMs to ensure corrective measures are taken autonomously to address identified risks. In 2022, compliance reviews were conducted on domestic subsidiaries to identify and improve risks along with separate training. We also bolstered compliance controls at overseas corporations. The Compliance Team at the Headquarters provided on-site consulting for corporations in the Americas, Hungary, and Malaysia for compliance review. We established compliance units and introduced the internal compliance review system at overseas corporations to disseminate a culture of compliance management across the board.

### Compliance whistleblowing channels

Samsung SDI operates a compliance whistleblowing mechanism to promptly recognize and prevent regulatory non-compliance and risk factors. One may report all forms of regulatory non-compliance, including violation of fair trade regulations, trade secret infringement, and false/exaggerated advertising. Such whistleblowing reports can be submitted through a range of channels, from the CPMS and our website to e-mail, phone, and fax, and all reports are handled in a

confidential manner and remain strictly anonymous. In 2023, we re-organized our website and the CPMS to make whistleblowing more convenient.

### Compliance management training

To advance compliance management and prevent the risk of regulatory non-compliance, we focus on diverse tailor-made, specialized training programs that cater to the distinctive needs of departments and individual employees. In conducting company-wide online compliance training, we also provide training customized for different job categories to make such training more engaging and increase the effectiveness of training. For departments at increased risk for regulatory non-compliance, we segmented courses for different levels of trainees to maximize their effectiveness. To establish a self-directed compliance culture at overseas corporations, we created an in-house compliance training process led by local personnel. We also provide compliance training to employees of our primary partners to assist them in bolstering their compliance management capabilities.

### Expanding communication on compliance

We engage in a wide array of communication activities to raise compliance awareness at all levels. Our CEO regularly communicates our commitment to compliance both internally and externally, and executives share compliance messages with their department members on a regular basis. The Compliance Team regularly provides employees with compliance information, and sends the quarterly SDI Compliance Letter containing noteworthy media articles on compliance issues as well as regulatory enactments and amendments to independent directors. In 2022, we published the Compliance Oversight Regulations to help employees easily access and use our compliance management regulations and guidelines, and circulated them among executives, compliance chief managers, and TCMs.

## Samsung Compliance Committee

### Purpose and composition

The Samsung Compliance Committee (the 'Committee' hereinafter) was launched in 2020 to bolster compliance oversight and control at Samsung's seven major affiliates<sup>1)</sup> and advance integrity management as Samsung's core value.

The Committee is guaranteed its independence and autonomy as an independent organization created outside of Samsung SDI, and is mandated to review and manage the risk of regulatory non-compliance for Samsung SDI and other major affiliates. The Committee consists of six outside members including its chair and one internal member, and outside members are appointed for their expert knowledge and experience in compliance oversight.

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 regularly with compliance officers from Samsung affiliates on a monthly basis, and also convenes ad-hoc meetings when necessary. The Committee reviews affiliates for their external sponsorships and related transactions, and receives reports on affiliates' violation of regulatory compliance obligations through separate whistleblowing channels including post, e-mail, and third-party organizations. The Committee has its own website to post annual reports, details of the meetings held, and external statements and to receive relevant reports. The Committee engages in a wide array of activities by hosting discussions joined by affiliate CEOs, providing compliance training to high-level affiliate executives, and holding discussions among compliance experts.

# Ethics & Compliance

## Ethical Management System

### Dedicated ethics organization

Samsung SDI operates the Audit Team under the direct leadership of the CEO to advance ethical management. We continuously review ethics and anti-corruption issues to establish a transparent corporate culture. Our domestic and overseas operations receive ethics and anti-corruption evaluations and compliance audits, and the results are regularly reported to the Audit Committee under the Board each year.

### Ethics management guidelines

We implement guidelines to prevent and counter corruption in relation to ethical management, and present clear determination standards and behavioral guidelines concerning corruption to establish a corporate culture of integrity.

#### Ethics Management Guidelines

##### 1. Transactions

Acceptance of bribes and entertainment, lending & borrowing, harmful effects on business partners, preferential treatment for business partners, equity investments

##### 2. Company money and assets

Embezzlement, theft of assets

##### 3. Work discipline

Habitual neglect of duty, lending & borrowing among employees based on hidden motives, harmful effects among employees, outside work

##### 4. Other

Data leaks, etc.

## Ethical Management Operations

### Ethics review and monitoring

Samsung SDI continues with year-round monitoring with a focus on departments that interact with partners to prevent corruption involving partners, and launches full investigation when issues or whistleblowing reports are substantiated. As the Serious Accidents Punishment Act came into force in January 2022, we conducted intensive reviews on our six domestic worksites for their risk of accident occurrence and management system to make necessary improvements.

### Whistleblowing mechanism

We have a variety of whistleblowing programs up and running internally and externally to ensure the fair and prompt resolution of corruption-related concerns. We operate wide-ranging whistleblowing channels, from our in-house ethics management system and third-party whistleblowing websites to e-mail and phone dedicated to whistleblowing, to make whistleblowing more convenient. In 2022, we opened a new whistleblowing website accessible by our employees and external stakeholders to facilitate whistleblowing on ethics and compliance management. This website specifies our management principles and types of corruption and regulatory non-compliance subject to whistleblowing, and supports nine languages in total including Korean, English, Chinese, and Hungarian taking into account accessibility for locally-hired personnel working at overseas corporations as well as our domestic employees. We seek consent for reports submitted under one's real name in relation to personal data collection and its provision to third-parties, and whistleblowers may raise their concern anonymously if they wish.

### Ethics training

We provide ethics and anti-corruption training at least once a year. Training content was produced in nine languages to provide online training, and such training was conducted for all our domestic and overseas employees. As to offline training offered to new hires and full-time recruits with previous work experience in Korea, we have extended its scope to newly hired contract employees and have operated a regular training system since 2022.



# Ethics & Compliance

## Information Security

Samsung SDI is reinforcing our information security system to safeguard our critical assets and key information in response to increasingly sophisticated security threats. As our technology portfolio includes automotive battery technology that is considered as national core technology, we operate the industrial technology leakage prevention and management system. We also implement regular information security reviews and awareness building activities to prevent risks associated with information security.

### Information security policy

Our information security policy consists of basic principles and their implementation guidelines for Samsung SDI and employees to follow, and we operate and manage our security performance measurement index. Our information security policy defines all tangible/intangible information assets owned or generated by Samsung SDI, and applies to all outsiders who visit Samsung SDI including partner employees as well as our own employees. We keep our information security policy up-to-date by reflecting applicable laws in Korea and overseas and security measures associated with new information technology and new security threats each year, and the amendments made are posted on our in-house online bulletin board so that they are communicated at all levels.

### 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. 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 information security managers appointed at domestic and overseas worksites, operates the Information Security Working Group to share and handle issues related to information security.

### Information security management system

We installed digital CCTVs and established an access control management system to safeguard facilities within our worksites and control third-party access. All our worksites are accessible by authorized employees only, and visitors are required to make access requests prior to their visit to gain permission for entry in accordance with our Visiting Arrangement System. We operate a rigorous exit inspection system to ensure our critical assets and information are not taken out of our worksites without authorization. We deploy a range of IT systems to keep our critical information secure, including a blocking system to detect external security threats early on, a control system to block unauthorized outgoing transmissions, and an encryption system that enables viewing only on company PCs. To prevent IT system hacking and service outage, we test system each year to ensure the set incident response process works properly by conducting exercises under hacker attack simulation scenarios. We also operate a disaster recovery system so that normal system operation is possible even in the event of natural and man-made disasters, and conduct annual mock drills to ensure the well-functioning operation of this system. Each year, we appoint SAs (Security Agent) who keep close tabs on

working-level security operations, and are establishing self-directed, working-level security management practices through collaboration between SAs and our information security organization.

### Raising awareness on information security

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. We conduct monthly simulation-based malicious code e-mail tests and leverage in-house broadcasts, campaigns, and other varying channels to keep our employees vigilant against such threats. In particular, professional training is conducted each year for information security personnel to internalize information security capabilities. Our 'security report reward program' encourages employees to submit reports when they identify the risk of security-related incidents. Furthermore, we provide partners with annual security training to raise the security awareness of their employees and help prevent data leaks.



# Ethics & Compliance

## Data Privacy

Samsung SDI recently established a new part specializing in data privacy, Global Privacy Office, to operate our data privacy policy and management system pursuant to applicable laws so that we can safeguard the personal data of our employees, customers and visitors and keep personal data breaches at bay. In addition to the safety measures prescribed by the Personal Information Protection Commission, we have also adopted technical and managerial protection measures to secure the safety of personal data.

### Data privacy policy

To protect personal data and rights and interests of our employees, customers and visitors, Samsung SDI has implemented a Privacy Policy to specify the items of personal data collected, the purpose of data processing, the duration of use, and safeguards among others. Pursuant to Article 29 (Duty of Safeguards) of the Personal Information Protection Act, we also have established a Personal Data Internal Management Plan to systematically protect and manage personal data. Our Personal Data Internal Management Plan aims to ensure that personal data is not lost, stolen, leaked, falsified, damaged, or misused through systemic personal data management. The Plan defines the roles and responsibilities of the Chief Privacy Officer and covers matters on technical, managerial, physical safeguards and internal reviews for personal data as well as response procedures to be undertaken in the event of an issue occurring. This Plan applies to our own employees as well as partner employees who handle personal data, and is available on the internal work system accessible for all employees handling personal data.

In addition, Image Data Processing Device Operation and Management Guidelines contain provisions on matters related to our image data processing devices and image data.

### Data privacy management organization

In December 2022, we established the 'Global Privacy Office' with expertise in data privacy under the Legal & IP Team to ensure systemic and professional data privacy operations. We also appointed the head of the Legal & IP Team as the Chief Privacy Officer (CPO) to thoroughly perform all work stipulated under the Personal Information Protection Act and manage our systems containing personal data. The Global Privacy Office is responsible for overall data privacy operations, ranging from establishing strategies and operating policies for data privacy and establishing and bolstering relevant processes to addressing and supporting data privacy-related legal affairs and conducting data privacy training and review.

### Data privacy management system

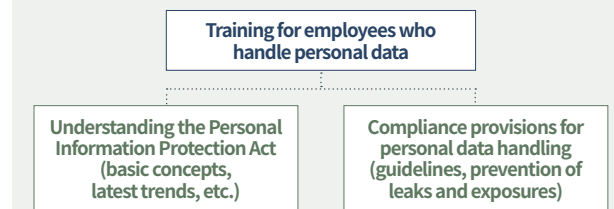
Our Chief Privacy Officer performs monthly reviews on access logs, including the account of employees handling personal data, the time and location of access, the subject of data handled, and the details of tasks undertaken, to manage the personal data handling work performed by employees responsible for handling such data. When employees handling personal data download personal data, this is thoroughly verified for justifications for such downloads. Furthermore, internal reviews are made at least once a year on the implementation of our internal management plan governing access rights management, access log storage and review, and encryption measures as well as our compliance with the data privacy policy. The Privacy Office 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 verify the consent given on the collection and use of personal data prior to registering such data in our corporate system to prevent any unauthorized collection of data without prior consent. For visitors, our Visiting Arrangement System applies the prior consent process for those who make visit applications to fully abide by the Personal Information Protection Act. In the event personal data breaches occur due to non-compliance with our data privacy policy, disciplinary and other personnel measures could be taken depending on the severity of the issue at hand and according to our internal regulations. Such breaches could be subject to punishment pursuant to the Personal Information Protection Act and other applicable regulations.

### Data privacy training

We provide training at least once a year to our employees 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 to improve their understanding on data privacy. Training topics are chosen in reflection of internal/external issues including regulatory amendments made concerning personal data privacy. In 2022, 370 persons (296 Samsung SDI employees handling personal data and 74 outsourcing company employees handling personal data) completed training on understanding the Personal Information Protection Act and compliance provisions to follow in handling personal data.

#### Data Privacy Training Content in 2022





# T RANSPARENCY IN STAKEHOLDER ENGAGEMENT

6.

Operated the  
official blog/  
Facebook page/  
YouTube channel









Disclosed  
transparently

2022 KEY ACHIEVEMENTS

# Expanding Stakeholder Communication

## Our Approach and Management Plan

Samsung SDI defines our key stakeholders as customers, shareholders, investors, employees, partners, communities, civic organizations, industry associations, universities, research institutes, governments, and media. We operate communication channels to efficiently gather varying feedback from respective stakeholder groups and effectively reflect such feedback in our business operations to forge even closer partnerships with internal/external stakeholders.

Stakeholder	Communications in 2022	Ways to Increase Value
 <b>Customers</b>	<ul style="list-style-type: none"> <li>• Customer visits</li> <li>• QBR(Quarterly Business Review) meetings</li> </ul>	<ul style="list-style-type: none"> <li>• QTR(Quarterly Technical Review) meetings</li> <li>• Website</li> </ul>
 <b>Shareholders &amp; investors</b>	<ul style="list-style-type: none"> <li>• IR earnings conference calls</li> <li>• IR NDR</li> <li>• IR website and company phone number</li> </ul>	<ul style="list-style-type: none"> <li>• General shareholder meetings</li> <li>• IR conferences and year-round meetings</li> <li>• Disclosures</li> </ul>
 <b>Employees</b>	<ul style="list-style-type: none"> <li>• Works Council</li> <li>• Counseling Center</li> <li>• Management briefings</li> <li>• Satisfaction surveys</li> </ul>	<ul style="list-style-type: none"> <li>• Change Agent</li> <li>• SDI talk</li> <li>• Global SDI Pick!</li> <li>• Newsletters</li> </ul>
 <b>Partners</b>	<ul style="list-style-type: none"> <li>• Purchasing portal system</li> <li>• SSP(Samsung SDI Partner's Association)</li> </ul>	<ul style="list-style-type: none"> <li>• Exchange meetings with partners</li> <li>• CEO and executives' visits to partners</li> </ul>
 <b>Communities &amp; civic organizations</b>	<ul style="list-style-type: none"> <li>• Community councils</li> <li>• CSR activities</li> <li>• Sisterhood ties</li> </ul>	<ul style="list-style-type: none"> <li>• Participate in CSR activities to contribute to help solve community issues</li> <li>• Revitalize the local economy</li> <li>• Prevent adverse environmental impact</li> </ul>
 <b>Industry associations/ universities/ research institutes</b>	<ul style="list-style-type: none"> <li>• Memberships at associations and societies</li> <li>• R&amp;D (Open Innovation)</li> <li>• Joint cooperation programs</li> </ul>	<ul style="list-style-type: none"> <li>• Support R&amp;D</li> <li>• Expand industry-academia cooperation</li> </ul>
 <b>Governments</b>	<ul style="list-style-type: none"> <li>• Participation in government-led projects</li> <li>• Joint cooperation programs</li> </ul>	<ul style="list-style-type: none"> <li>• Participate in governmental policies and abide by laws</li> <li>• Faithfully pay taxes</li> <li>• Transparently disclose information</li> </ul>
 <b>Media</b>	<ul style="list-style-type: none"> <li>• Prompt, transparent, and accurate disclosures</li> <li>• Press releases and newsletters on our products, technologies and markets</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure prompt and transparent communication with the media</li> <li>• Disclose accurate and diverse information</li> </ul>

# Expanding Stakeholder Communication

## Key Communication Channels

We operate a range of communication channels to promptly communicate the latest news of Samsung SDI while identifying and reflecting stakeholder needs. In addition to content on industry trends and useful daily information, we also share content that manifests Samsung SDI's distinctive characteristics.

### Official blog

Our official blog serves to provide highly useful information across the different categories of Samsung SDI, our products, and employees. This channel is filled with a wealth of information covering various topics that interest stakeholders.



### Official Facebook page

Our Facebook page provides an overview of diverse information shared through our wide-ranging communication channels, and enables us to promptly communicate information on our business and current status.



### Official YouTube channel

Our YouTube channel provides wide-ranging stakeholders an easy-to-understand and intriguing view of Samsung SDI's business, products, and technology. Vlog produced by our employees to share their work life and content on job descriptions help reach out closer to job seekers to provide them with useful information.



Company Overview



Battery Lab



SDI's history



Job Description



Employee Vlog



SDI Jungbotong

# Transparent Disclosure

## Sanctions Imposed Concerning Our Meal Service Contract and Improvements Made

### Case overview

In relation to our employee meal service contract with Samsung Welstory, we were ordered on August 27, 2021 by the Fair Trade Commission to take corrective action and pay fines (KRW 4.369 billion) on charges of violating Article 45, Clause 1, Paragraph 9 of the Monopoly Regulation and Fair Trade Act, and we paid the fines in November that year. Presently, administrative proceedings are pending for this measure. As to the corrective action ordered by the Commission, a decision was made to grant a stay of execution on January 27, 2022. We would like to note that there is no risk of criminal punishment concerning this case since neither Samsung SDI nor our employees were not charged with arrested for criminal offences in relation to our employee meal service contract.

### Improvements made concerning our employee meal service

In filing a revocation lawsuit, Samsung SDI is strongly arguing that our employee meal service contract with Samsung Welstory was entered into at arm's length and that it is difficult to accept the decision made by the Commission. Irrespective of the revocation lawsuit, we introduced competitive bidding for our in-house cafeteria operations under the supervision of our Board of Directors while improving and supplementing our related transactions process with an aim to alleviate concerns over our employee meal service contract and promote win-win cooperation.

#### 1. Introducing competitive bidding for our in-house cafeteria

Under the supervision of the Board and in line with the principle of improving employee welfare and benefits, we established a competitive bidding process to avoid private contract signing while boosting transparency, fairness, and adequacy of pricing. Between September 2021 and the end of 2022, competitive bidding was completed for six in-house cafeterias operated at our entire domestic operations.

Competitive bidding started with the dormitory cafeteria at our Cheonan worksite in September 2021, and was implemented at the in-house cafeteria of our Cheongju worksite in April 2022. In November that year, in-house cafeterias at four of our worksites in Giheung, Cheonan, Ulsan, and Gumi also chose their meal service provider through competitive bidding. As such, employee meal service companies were chosen through competitive bidding, and the entire process was made publicly available both internally and externally. In making assessments in each stage, external experts and members of our Works Council participated to make this process more objective.

#### 2. Improving our related transactions deliberation process

Our existing process, which was led by the Related Party Transactions Committee under the Board of Directors and the Board itself making deliberations and granting approvals, was partially improved and supplemented. In September 2022, the related transactions deliberation committee was established to bolster our risk management for related transactions. The committee collects feedback from relevant departments concerning our transactions entered into with companies that are subject to Article 47 of the Fair Trade Act as well as our transactions entered into with companies in the construction, SI, advertising, logistics and other industries that are under intensive monitoring for their potential for receiving unjustified favors from affiliated companies. The committee also reviews private contracts for their procedural legitimacy and transactional transparency. Furthermore, the committee ensures that major transactions subject to its review switch to competitive bidding to raise the proportion of competitive bidding as a result.

In October 2022, we created the vendor registration deliberation committee to prevent the reckless registrations of new vendors for infrastructure procurement and services and to ensure transparency in registering and managing vendors. When one of our affiliates registers as a new vendor, this is reviewed for the risk for related transactions from the vendor registration phase to improve transparency in doing business with our affiliates.



# Transparent Disclosure

## Sanctions Imposed Concerning Subcontracting and Improvements Made

### Case overview

In relation to the non-issuance of paper documents in requesting technical data, Samsung SDI was ordered on May 3, 2022 by the Fair Trade Commission to take corrective action (reoccurrence prevention order) and pay fines (KRW 270 million) on charges of violating Article 12, Clause 3, Paragraphs 2 and 3 of the Fair Transactions in Subcontracting Act, and paid the fines on July 25 the same year. It is difficult to accept the measure made by the Commission, so administrative proceedings are pending in relation to it, and three hearings were held as of the end of March 2023.

### Improvements made concerning subcontracting

#### 1. Supplementing the technical data request system

We invested in supplementing our existing system (KRW 250 million in total investment) to ensure that we sign the technical data request agreement and the non-disclosure agreement, and that receiving and disposing of technical data can be performed through the system. The updated technical data request system integrated the essential procedures required for regulatory compliance – prior consultations, request issuance and agreement signing, and technical data receipt/return/disposal – so that our employees could consecutively perform such work through the system. This resulted in rigorous controls being placed on possible regulatory non-compliance associated with technical data requests. We also perform year-round monitoring and compliance review.

In addition, we deployed necessary features on the system to prevent the risk of regulatory non-compliance and operate an ‘end-to-end process’ for technical data request and request paper issuance. This ensures the full online issuance and retainment of technical data requests (agreement) and received data through the system. Specifically, this system functionally mandates that technical data requests (agreement) be signed in the initial phase of generating the material approval sheet, and in the event that the agreement is not entered into, progressing to the next step is made impossible. This means that at Samsung SDI, prior consultations and agreement signing have become a mandatory prerequisite to receiving partners’ technical data that are receivable only through the system.

#### 2. Providing regular and year-round training on subcontracting regulations (concerning technical data)

We continued with company-wide promotional activities (postings made using Knox, manual distribution) and provided offline/online regular and year-round training to users from relevant departments (procurement, development, quality, and manufacturing technology among others).

Over the past three years, we provided 10,138 employees with technical data training on 19 occasions, including three company-wide postings, nine offline trainings, and seven online trainings.



# APPENDIX

Materiality Assessment	87
Financial Performance	89
Sustainability Performance	91
GRI Standards 2021 Index	100
SASB Index	103
TCFD Index	104
UN SDGs	105
GHG Verification Opinion	107
Independent Assurance Statement	109



# Materiality Assessment

Samsung SDI conducted double materiality assessment in accordance with the GRI (Global Reporting Initiative standards 2021), EU’s CSRD (Corporate Sustainability Reporting Directive), and IFRS (International Financial Reporting Standards)’s Exposure Draft for sustainability disclosures. We identified ESG topics material to Samsung SDI based on understanding on our business context, and looked into each ESG topic for their inside-out impact – how our business operations impact economy, environment, and people (employees, customers, end-users, and value chain workers) - and for their outside-in impact – how respective ESG topics impact the financial aspect of Samsung SDI. This was followed by impact assessments conducted on internal/external experts who have in-depth understanding of Samsung SDI and ESG. Assessment results received Board’s final review and approval, and this led us to arrive at eight key ESG topics.

## Double Materiality Assessment Process

Process	Objective and Activity	Detailed Process and Consideration	Output				
Understand the business context	Understand Samsung SDI’s business operations and relationships and sustainability contexts to completely identify significant actual and potential sustainability impact	<ul style="list-style-type: none"> <li>Business operations in general: Mission, business model/strategy, products and services, location, type of workers, etc.</li> <li>Business relationship: Main business, customer/supply chain characteristics, etc.</li> <li>Sustainability context: Economic, environmental, and social issues associated with industry, activity, and location as well as laws and regulations</li> </ul>	Identify stakeholders				
Create a pool of topics	Choose topics fit for our corporate and industry characteristics and whose disclosure is required by stakeholders	<ul style="list-style-type: none"> <li>Analyze major disclosure guidelines (GRI, SASB, etc.)</li> <li>Analyze major ESG rating standards (MSCI, DJSI, etc.)</li> <li>Analyze material ESG topics reported by industry peers</li> <li>Analyze internal ESG management data including sustainability strategy and focus areas</li> </ul>	List 22 topics				
Characterize topics	Identify topics for their impact characteristics (positive/negative, actual/potential), and determine how to assess these topics depending on their type identified	<ul style="list-style-type: none"> <li>Understand policies/regulatory requirements, media articles, global disclosure and assessment standards, internal news, and shareholder/investor requirements for each topic</li> <li>Identify inside-out impact: Characterize topics: Identify the subject of impact (economy, environment, people) and categorize impact into positive/negative and actual/potential impact</li> </ul>	Develop impact assessment tools				
Assess topics for their impact	Survey internal/external experts who deeply understand Samsung SDI and ESG to prioritize topics	<table border="1"> <tr> <td>Inside-out(Social and environmental impacts)</td> <td> <ul style="list-style-type: none"> <li>Topic assessment criteria: Scale, scope, remediability, and likelihood</li> </ul> </td> </tr> <tr> <td>Outside-in(financial impacts)</td> <td> <ul style="list-style-type: none"> <li>Topic assessment criteria: Probability of resource input, stakeholder dependence, probability of change in business model and strategy, impact on financial expenses</li> </ul> </td> </tr> </table>	Inside-out(Social and environmental impacts)	<ul style="list-style-type: none"> <li>Topic assessment criteria: Scale, scope, remediability, and likelihood</li> </ul>	Outside-in(financial impacts)	<ul style="list-style-type: none"> <li>Topic assessment criteria: Probability of resource input, stakeholder dependence, probability of change in business model and strategy, impact on financial expenses</li> </ul>	Produce impact assessment results and priorities
Inside-out(Social and environmental impacts)	<ul style="list-style-type: none"> <li>Topic assessment criteria: Scale, scope, remediability, and likelihood</li> </ul>						
Outside-in(financial impacts)	<ul style="list-style-type: none"> <li>Topic assessment criteria: Probability of resource input, stakeholder dependence, probability of change in business model and strategy, impact on financial expenses</li> </ul>						
Select material topics	Set priorities for reporting topics to the Sustainability Management Committee under the Board	<ul style="list-style-type: none"> <li>Quantitatively analyze impact assessment results</li> <li>Group material topics for disclosure based on assessment results</li> <li>Review and approval at the Board level</li> </ul>	Choose material topics and group disclosure topics				

# Materiality Assessment

## Materiality Assessment Results

ESG	Material Topic	Identified Impact	Key Impact	Impact on	Impact level <sup>1)</sup>		GRI Index	Related Focus Area	Page
					Social/Environmental impact	Financial impact			
E	Building a battery circular economy	Positive-actual	Establishing a closed-loop resource circulation system to ensure effective battery disassembly/recycling designs and to recycle reclaimed materials helps mitigate environmental impact and expand the circular economy ecosystem.	Environment, economy	●●●●●	●●●●●	301-2	Move to Net-Zero	48-49p, 94p
	GHG emissions	Negative-actual	GHG emissions generated from the overall value chain cause the negative impact of climate change, and may incur management costs to respond to emissions trading schemes and other regulations.	Environment, economy	●●●●●	●●●●●	305-1-5	Move to Net-Zero	40-42p, 45p, 93p
	Renewable energy transition	Positive-actual	Expanding renewable energy not only helps proactively address climate change but also contributes to landing orders and improving business relationships with global leading customers demanding transition to 100% renewables.	Environment, economy	●●●●●	●●●●●	302-1, 3	Move to Net-Zero	42p, 47p
	Product environmental LCA and and environmental impact mitigation	Positive-actual	Assessing and mitigating environmental impact, including carbon emissions generated from a product's lifecycle, helps respond to the (draft) EU Batteries Regulation and meet relevant requirements from global car OEMs and other key customers.	Environment, economy	●●●●○	●●●●●	Non-GRI	Move to Net-Zero	46p
	Energy efficiency management	Positive-actual	Improving the efficiency of energy used in the entire manufacturing process brings positive impact to operational efficiency and profitability.	Environment, economy	●●●●○	●●●●○	302-1, 3, 4	Move to Net-Zero	42-44p, 93p
S	Supply chain sustainability/risk management	Positive-actual	Managing potential environmental/social risk factors that may affect partners helps manage value chain risk and prevent/mitigate negative impact.	People, environment	●●●●○	●●●●●	308-1-2, 414-1-2	Accountability in Value-Chain	60-64p, 96p
	Health/safety accidents affecting employees (high-consequence injuries and others)	Negative-actual	Health and safety accidents involving employees bring negative impact on employee retention and may lead to business disruptions and suspension, making it impossible to continue with reliable manufacturing operations.	People, economy	●●●●●	●●●●○	403-1-9	Infinite Safety	30-33p, 92p
	Product safety and quality accidents (recalls and others)	Negative-potential	Exposure to product safety issues and lack of quality management efforts may result in direct/indirect damage to public health and safety.	People, economy	●●●○○	●●●●○	416-1-2	Infinite Safety	34-38p, 93p

1) ●●●●● Very High ●●●●○ High ●●●○○ Moderate ●●○○○ Low ●○○○○ Very Low



# Financial Performance

53<sup>rd</sup> as of Dec. 31, 202252<sup>nd</sup> as of Dec. 31, 202151<sup>st</sup> as of Dec. 31, 2020

(unit: KRW)

## Consolidated Statement of Financial Position

Category	End of 53 <sup>rd</sup>	End of 52 <sup>nd</sup>	End of 51 <sup>st</sup>
<b>Assets</b>			
Total current assets	9,651,702,375,329	7,444,907,068,203	5,657,405,165,394
Cash and cash equivalents	2,614,271,849,898	2,325,692,348,376	1,545,974,321,801
Trade and other receivables, net	2,933,814,798,893	2,195,425,598,789	1,870,381,153,317
Inventories, net	3,204,515,834,716	2,487,316,318,701	1,810,785,260,639
Other investments	534,662,104,634	164,541,358,730	167,037,269,633
Other assets	335,800,401,510	258,708,109,360	256,395,938,005
Current derivative assets	28,637,385,678	13,223,334,247	6,831,221,999
Total non-current assets	20,605,822,795,798	18,388,285,928,733	15,876,827,101,435
Trade and other receivables, net	6,879,322,583	13,538,047,881	25,279,489,150
Investments in equity-accounted investees	8,940,282,254,638	7,885,424,300,376	7,143,396,948,925
Tangible assets, net	8,965,469,798,907	7,635,995,590,121	6,128,099,170,818
Intangible assets, net	814,931,162,728	798,911,068,282	793,573,297,061
Investment property	147,558,866,183	150,410,177,327	150,502,139,591
Deferred tax assets	168,913,513,518	140,864,868,927	96,846,429,192
Other non-current investments, including derivatives	1,245,883,336,770	1,572,410,115,693	1,358,684,147,489
Other non-current assets	137,715,011,245	105,884,740,957	106,629,882,558
Derivative assets	6,070,437,854	84,847,019,169	73,815,596,651
Employee benefits assets	172,119,091,372	-	-
Total assets	30,257,525,171,127	25,833,192,996,936	21,534,232,266,829
<b>Liabilities</b>			
Total current liabilities	8,006,938,827,488	6,461,285,795,016	4,983,633,140,961
Trade and other payables	4,285,754,045,541	3,269,446,524,533	1,809,091,871,927
Income taxes payable	229,613,880,891	126,201,165,219	44,391,708,778

Category	End of 53 <sup>rd</sup>	End of 52 <sup>nd</sup>	End of 51 <sup>st</sup>
Advance received	230,132,847,224	211,277,273,149	353,726,970,697
Unearned revenue	78,688,354,316	39,131,549,681	17,761,781,525
Short-term borrowings	2,851,183,213,651	2,510,216,802,997	2,427,504,179,850
Derivative liabilities	57,510,091	2,330,249,501	28,783,093,680
Provisions	331,508,975,774	302,682,229,936	302,373,534,504
Total non-current liabilities	5,033,084,187,511	4,175,207,887,065	3,191,672,237,752
Trade and other payables	697,531,224,825	265,947,483,830	210,040,906,245
Long-term advance received	50,623,504,840	35,429,209,729	1,344,199,495
Long-term borrowings	2,297,040,000,000	2,107,760,803,273	1,484,319,604,943
Employee benefit liabilities, net	2,005,409,849	9,358,262,362	38,705,231,267
Derivative liabilities	82,319,778	10,016,686,557	-
Provisions	91,878,306,036	93,311,709,876	79,823,289,635
Deferred tax liabilities	1,893,923,422,183	1,653,383,731,438	1,377,439,006,167
Total liabilities	13,040,023,014,999	10,636,493,682,081	8,175,305,378,713
<b>Total shareholders' equity</b>			
Equity attributable to owners of the Parent Company	16,485,723,513,578	14,704,264,131,372	12,977,616,019,092
Capital stock	356,712,130,000	356,712,130,000	356,712,130,000
Capital surplus	5,001,974,693,202	5,001,974,693,202	5,001,974,693,202
Other capital	(345,131,583,767)	(345,131,583,767)	(345,131,583,767)
Accumulated other comprehensive income	1,003,816,893,169	1,174,235,557,799	545,959,019,790
Retained earnings	10,468,351,380,974	8,516,473,334,138	7,418,101,759,867
Non-controlling interests	731,778,642,550	492,435,183,483	381,310,869,024
Total shareholders' equity	17,217,502,156,128	15,196,699,314,855	13,358,926,888,116
<b>Total liabilities and equity</b>	30,257,525,171,127	25,833,192,996,936	21,534,232,266,829

## Financial Performance

### Consolidated Statements of Comprehensive Income

53<sup>rd</sup> from Jan. 1, 2022 to Dec. 31, 202252<sup>nd</sup> from Jan. 1, 2021 to Dec. 31, 202151<sup>st</sup> from Jan. 1, 2020 to Dec. 31, 2020

(unit: KRW)

Category	53 <sup>rd</sup>	52 <sup>nd</sup>	51 <sup>st</sup>
Revenue	20,124,069,515,854	13,553,220,248,796	11,294,770,446,035
Cost of sales	15,903,322,834,044	10,475,602,069,114	8,914,217,432,960
Gross profit	4,220,746,681,810	3,077,618,179,682	2,380,553,013,075
Selling, general and administrative expenses	2,412,733,668,608	2,010,042,579,185	1,709,217,654,651
Operating income	1,808,013,013,202	1,067,575,600,497	671,335,358,424
Other income	62,998,019,043	51,960,888,011	50,205,002,985
Other expenses	206,316,945,755	93,328,475,158	147,740,368,241
Financial income	1,390,645,972,964	547,619,989,802	528,826,123,713
Financial expenses	1,442,761,340,601	440,534,600,273	591,925,690,538
Share of profit of equity accounted investees	1,039,696,669,877	530,041,919,350	292,710,207,317
Profit before income taxes	2,652,275,388,730	1,663,335,322,229	803,410,633,660
Income tax expenses	612,913,940,744	412,933,761,988	172,444,336,134
Profit for the year	2,039,361,447,986	1,250,401,560,241	630,966,297,526
Other comprehensive income	(139,877,439,687)	629,464,562,852	136,609,851,168
Items that will never be reclassified to profit or loss	(82,073,743,779)	232,418,639,469	59,405,681,279
Remeasurements of defined benefit liability	87,645,868,605	(5,968,133,542)	4,557,253,690
Unrealized net changes in fair value of FVOCI financial assets	(166,678,916,451)	312,538,060,698	73,814,357,496
Related tax	(3,040,695,933)	(74,151,287,687)	(18,965,929,907)
Items that are or may be reclassified to profit or loss	(57,803,695,908)	397,045,923,383	77,204,169,889
Change in equity of equity-method accounted investees	(9,615,209,282)	191,618,539,908	60,009,573,086
Change in gain on translation of foreign operations	17,859,070,952	238,564,516,062	(26,482,304,334)
Effective portion of unrealized changes in fair values of cash flow hedges	(67,984,703,341)	17,423,534,765	77,530,704,627
Related tax	1,937,145,763	(50,560,667,352)	(33,853,803,490)

Category	53 <sup>rd</sup>	52 <sup>nd</sup>	51 <sup>st</sup>
Total comprehensive income	1,899,484,008,299	1,879,866,123,093	767,576,148,694
Profit attributable to:			
Owners of the Parent Company		1,169,801,394,611	574,723,493,870
Non-controlling interests		80,600,165,630	56,242,803,656
Total comprehensive income attributable to:			
Owners of the Parent Company		1,793,592,722,080	719,623,908,425
Non-controlling interests		86,273,401,013	47,952,240,269
Earnings per share			
Ordinary share – Basic earnings per share	29,191	17,492	8,593
Preferred share – Basic earnings per share	29,241	17,542	8,643

### Sales by Business Division

(unit: KRW 100 million)

Category	53 <sup>rd</sup>	52 <sup>nd</sup>	51 <sup>st</sup>
Energy solution	175,663	109,469	87,288
Electronic materials	25,578	26,063	25,660
Total	201,241	135,532	112,948

# Sustainability Performance

## Economic Performance

### Production

Business Division	Unit	2020	2021	2022	
Energy solution	Small-sized battery <sup>1)</sup>	Million cells	1,576	1,950	2,172
	Automotive battery	Million cells	77.1	105.2	127.2
	ESS	Million cells	14.8	20.3	20.8
Electronic Materials	Polarizing film	1,000 m <sup>2</sup>	96,356	98,802	77,872

1) Data for 2020 and 2021 was restated based on the annual report

### Taxes Paid by Country and Continent

Category	Unit	2020	2021	2022
Korea	KRW	10,770,144,804	117,804,568,306	210,672,837,530
Japan	KRW	270,427,271	310,057,934	421,309,896
Americas and Europe	KRW	37,120,086,061	66,167,763,563	63,953,685,429
China and Southeast Asia	KRW	39,396,460,066	65,644,370,222	70,336,936,363

Samsung SDI honestly and faithfully files and pays taxes in the countries where we operate. We do not use any tax system devoid of commercial substance for the purpose of tax avoidance nor engage in cross-border income transfer or tax avoidance using tax havens. We sincerely follow country-specific tax policies, and make sure we keep up-to-date with changing tax policies. To this end, all our employees responsible for tax affairs comply with our legally-appropriate tax policy in their business conduct.

### Corporate Taxes paid (consolidated)

Category	Unit	2020	2021	2022	Note
Pre-tax profit	KRW million	803,411	1,663,335	2,652,275	On a consolidated basis
Corporate tax expenses	KRW million	172,444	412,934	612,914	On a consolidated basis
Effective tax rate	%	21.46	24.83	23.11	On a consolidated basis
Corporate taxes paid	KRW million	124,576	217,775	278,533	On a consolidated basis (corporate taxes paid as specified in the cash flow statement)
Cash tax rate	%	15.51	13.09	10.50	On a consolidated basis

### Contributions Other Spendings<sup>1)</sup>

Category	Unit	2022
Lobbying, interest representation or similar	KRW million	0
Local, regional or national political campaigns/organizations/candidates	KRW million	0
Trade associations or tax-exempt groups (e.g., think tanks) <sup>2)</sup>	KRW million	1,209

1) Samsung SDI does not make political donations accordance with Article 31 of the Political Fund Act.

2) 3 largest contributions in 2022

- Korea Chamber of Commerce and Industry(KRW 211 million)
- Korea Battery Industry Association(KRW 600 million)
- Korea Display Research Association(KRW 45 million)

### Green Sales<sup>1)</sup>

Category	Unit	2020	2021	2022
Green sales	KRW 100 million	87,288	109,469	175,663

1) Green sales were calculated as revenues from our battery business which falls into the 'green' economy category under the EU Taxonomy. In 2022, our battery business (energy solutions) accounted for 87.3% of total sales, 98.7% of CAPEX, and 89.1% of OPEX.

# Sustainability Performance

## Infinite Safety – Occupational Health & Safety

### Occupational Injury

Category	Unit	2020	2021	2022	
Employees	Injuries	cases	4	6	2 <sup>1)</sup>
	Accident rate <sup>2)</sup>	%	0.014	0.021	0.007
	- Domestic	%	0.028	0.037	0.018
	- Overseas	%	0.006	0.011	0
	Illness rate		0	0	0
	Fatalities	No. of persons	0	1	0
	In-house partners	Injuries	cases	1	1
Accident rate <sup>2)</sup>		%	0.019	0.035	0
Fatalities		No. of persons	0	0	0

1) Accidents in grade D or higher that involved Samsung SDI employees (2 cases in Korea)

2) (No. of injured employees/No. of employees) X 100

### Detailed Occupational Injury Data in 2022

Category	Calculation	Domestic	Overseas	Total
Employees	Injury frequency rate (No. of injuries/No. of annual work hours <sup>1)</sup> ) X1,000,000	0.073	0	0.027
	Loss rate (No. of lost work days/No. of annual work hours) X1,000,000	6.061	0	2.252
	Injury rate (accidents + illnesses) (No. of injured employees/No. of employees) X 100	0.018%	0%	0.007%
In-house partners	Injury frequency rate (No. of injuries/No. of annual work hours <sup>1)</sup> ) X1,000,000	0	0	0
	Loss rate (No. of lost work days/No. of annual work hours) X1,000,000	0	0	0
	Injury rate (accidents + illnesses) (No. of injured employees/No. of employees) X 100	0%	0%	0%
Employees + in-house partners	Injury frequency rate (No. of injuries/No. of annual work hours <sup>1)</sup> ) X1,000,000	0.065	0	0.024
	Loss rate (No. of lost work days/No. of annual work hours) X1,000,000	5.388	0	1.980
	Injury rate (accidents + illnesses) (No. of injured employees/No. of employees) X 100	0.016%	0%	0.006%

1) Annual work hours = 8 hours X 300 days X No. of employees

### EHS (Environment, Health & Safety) Reviews and Audit

Category	Unit	2020	2021	2022
EHS meetings supervised by the CEO	No. of meetings	6	5	4
Improvement tasks identified through EHS audits	Domestic cases	475	242 <sup>1)</sup>	326
	Overseas cases	160	72 <sup>1)</sup>	47 <sup>1)</sup>

1) Due to COVID-19, the audit was scaled down

### Safety Job Qualification Training

Category	Unit	2020	2021	2022
Completion of safety job qualification training	%	99.9	100	100
Employees to be trained <sup>1)</sup>	No. of persons	1,942	2,002	2,073
Employees who completed training	No. of persons	1,940 <sup>2)</sup>	2,002	2,073

1) Full-time and contract employees are included

2) Two employees did not take the performance test

### Acquisition of National Health & Safety Engineer Qualifications

Category	Unit	2020	2021	2022
Employees with industrial engineer and above qualifications <sup>1)</sup>	%	51	60	55
Employees with master engineer and above qualifications <sup>2)</sup>	%	23	24	25

1) Qualifications recognized within the Safety and Environment Group (industrial safety engineers, industrial hygiene management engineers, firefighting equipment engineers + masters and technicians)

2) Qualifications recognized within the Safety and Environment Group (masters and technicians)



# Sustainability Performance

## Infinite Safety – Product Safety

### Development of Qualify Workforce

Category	Unit	2020	2021	2022
Quality management training hour <sup>1)</sup>	hours	42	117	181

1) In 2020, no training other than legally-mandatory training was provided due to COVID-19

### Customer Satisfaction Score

Business Division	Category	Unit	2020	2021	2022
Small-sized Li-ion Battery	Customer satisfaction score	Point	85.1	91.9	87.7
	Companies surveyed	No. of companies	15	22	24
	Customers surveyed	No. of persons	15	22	24
Automotive & ESS Battery	Customer satisfaction score	Point	81.2	81.0	81.6
	Companies surveyed	No. of companies	5	4	4
	Customers surveyed	No. of persons	5	4	4

## Move to Net-Zero – Action for Climate Crisis

### Energy Consumption

Category	Unit	2020	2021	2022
Company-wide consumption	TJ	23,661	27,464	32,799
- Domestic consumption	TJ	11,601	12,186	12,093
- Overseas consumption	TJ	12,060	15,278	20,706
Company-wide consumption intensity	TJ/KRW 100 million	0.21	0.20	0.16

### GHG Emissions

Category	Unit	2020	2021	2022 <sup>1)</sup>	
Total emissions (the sum of direct/indirect emissions)	tCO <sub>2</sub> e	1,399,528	1,573,530	1,660,732	
Direct/indirect emissions	Direct emissions	tCO <sub>2</sub> e	183,925	225,594	242,116
	Indirect emissions	tCO <sub>2</sub> e	1,215,603	1,347,936	1,418,616
	Direct/indirect emissions intensity	tCO <sub>2</sub> e/KRW 100 million	12.4	11.6	8.3
By region	Domestic	tCO <sub>2</sub> e	561,197	587,846	582,503
	Overseas	tCO <sub>2</sub> e	838,331	985,684	1,078,229
By product	Small-sized battery	tCO <sub>2</sub> e	763,831	868,223	892,538
	Automotive & ESS battery	tCO <sub>2</sub> e	393,962	454,820	516,853
	Electronic materials	tCO <sub>2</sub> e	195,817	184,720	186,114
	R&D and others	tCO <sub>2</sub> e	45,918	65,767	65,227
Other indirect emissions	Purchased goods and services	tCO <sub>2</sub> e	-	-	789,059
	Capital goods	tCO <sub>2</sub> e	-	-	12,097
	Fuel- and energy-related activities <sup>2)</sup>	tCO <sub>2</sub> e	-	223,150	103,527
	Upstream transportation and distribution	tCO <sub>2</sub> e	568	621	118,927
	Waste generated in operations	tCO <sub>2</sub> e	-	9,977	33,810
	Business travel	tCO <sub>2</sub> e	1,673	2,193	6,726
	Employee commuting	tCO <sub>2</sub> e	-	-	7,446
	Upstream leased assets	tCO <sub>2</sub> e	-	-	104
	Downstream transportation and distribution	tCO <sub>2</sub> e	-	-	35,234
	End-of-life treatment of sold products	tCO <sub>2</sub> e	-	-	95,269
	Downstream leased assets	tCO <sub>2</sub> e	-	-	24
Investments	tCO <sub>2</sub> e	-	-	1,713	

1) 2022 emissions were reported as market-based GHG emissions that reflect the consumption of renewable energy. Our location-based GHG emissions that do not reflect the consumption of renewable energy amounted to 2,953,550tCO<sub>2</sub>e

2) Applied emission factor was changed(When the same emission factor is applied, the emission in 2021 is 102,563tCO<sub>2</sub>e)

## Sustainability Performance

### Move to Net-Zero – Circular Economy and Environmental Impact Management

#### Waste Generation and Disposal

Category	Unit	2020 <sup>1)</sup>	2021	2022
Total generation	ton	159,168	175,143	175,060
- Domestic	ton	71,046	74,151	69,262
- Overseas	ton	88,121	100,992	105,799
Company-wide generation intensity	ton/KRW 100 million	1.41	1.29	0.87
Hazardous waste generated	ton	73,999	86,627	84,514
Domestic	Recycling rate	%	95.5	96.0
	Landfill rate	%	0.4	0.2
Overseas	Recycling rate	%	71.8	88.5
	Landfill rate	%	1.5	4.4
General waste disposal	Incineration	ton	9,310	3,114
	Landfill	ton	1,239	725
	Recycling	ton	73,290	80,627
	Others (neutralization, etc.)	ton	1,330	4,050
Hazardous waste disposal	Incineration	ton	15,699	2,750
	Landfill	ton	327	3,910
	Recycling	ton	57,837	79,828
	Others (neutralization, etc.)	ton	137	140

1) Restatements were made by recalculating the waste generated and treated in 2020

#### Green Purchases<sup>1)</sup> Made

Category	Unit	2021	2022
Use of recycled metals	%	2	2

1) Green purchases are defined from the perspective of recycling directly associated with Samsung SDI's business, and refer to raw materials collected after their use and disposal and recycled

#### Environmental Management Investments Made<sup>1)</sup>

Category	Unit	2021	2022
Environmental Management Investments	Plan	KRW million	29,281
	Achievement	KRW million	30,916
	Rate of Investment Execution	%	106
			103

1) 6 domestic worksites in Giheung, Suwon, Cheonan, Cheongju, Gumi, and Ulsan and 6 overseas corporations in Tianjin, Xi'an, Wuxi, Vietnam, Malaysia, and Hungary

#### Water Withdrawal

Category	Unit	2020	2021	2022
Company-wide withdrawal	ton	8,060,766 <sup>1)</sup>	8,714,979	9,551,318
- Domestic	ton	3,895,356	4,018,931	3,643,041
- Overseas	ton	4,165,410	4,696,048	5,908,277
Company-wide generation intensity	kiloton/KRW 100 million	0.07	0.06	0.05
Withdrawal by source	Industrial water	ton	4,380,986	4,667,804
	Utility water	ton	1,751,228	1,716,392
	Surface water	ton	1,735,050	2,127,482
	Underground water	ton	193,502	203,301

1) Restatements were made by recalculating the water withdrawal in 2020

#### Water Reuse<sup>1)</sup>

Category	Unit	2021	2022
Company-wide water reuse	Water reused	ton	2,559,268
	Water consumed	ton	11,274,247
	Water reuse rate	%	22.7

1) Calculated since 2021

#### Effluent Discharge

Category	Unit	2020	2021	2022
Company-wide discharge	ton	3,453,609	3,350,084	3,754,770
- Domestic	ton	2,299,058	2,038,574	1,976,173
- Overseas	ton	1,154,551	1,311,510	1,778,597
Company-wide discharge intensity	kiloton/KRW 100 million	0.03	0.02	0.02

#### Pollutant Generation

Category	Unit	2020	2021	2022
Water pollutant discharge intensity	BOD	kg/KRW 100 million	0.11	0.20
	COD	kg/KRW 100 million	0.88	0.85
	SS	kg/KRW 100 million	0.41	0.32
Air pollutant emissions intensity	NOx	kg/KRW 100 million	0.62	0.43
	SOx	kg/KRW 100 million	0.03	0.01
	Dust	kg/KRW 100 million	0.56	0.34

## Sustainability Performance

### Partnership with Value-Chain Partners and Community – Value-Chain Partnership

#### Purchases Made along the Supply Chain

Category	Unit	2020	2021	2022
Total purchases made	KRW 100 million	73,455	90,568	134,189
- Raw/subsidiary material purchases made	KRW 100 million	60,793	75,157	118,744
- Equipment purchases made	KRW 100 million	9,971	13,065	12,796
- MRO purchases made <sup>1)</sup>	KRW 100 million	2,691	2,346	2,649
Ratio of local purchases made by partners (based on battery business)	%	35.3	52.0 <sup>2)</sup>	38.0

1) MRO (Maintenance, Repair & Operation) purchases include the purchase of packaging materials

2) Restatements were made as the proportion of local purchases was re-calculated

#### Shared Growth Support and Performance

Category	Unit	2020	2021	2022	
Financial support	Direct support (credit assistance for molding fees, etc.)	KRW 100 million	135	158	213
	Contributions to the win-win fund <sup>1)</sup>	KRW 100 million	450	650	650
	Special support (training, etc.) <sup>1)</sup>	KRW 100 million	2	2	5
Direct/indirect management support	On-the-job training (partners)	No. of persons	851	1151	1249
		No. of companies	89	96	103
	Online training (partners)	No. of persons	35	48	60
		No. of companies	5	29	36
	Recruitment support <sup>2)</sup>	No. of persons	52	73	49
		No. of companies	3	3	2
Performance in technology support and protection	Innovation guidance	No. of companies	6	6	7
	Original trade secret certification system	cases	52	75	0
	Technology escrow system	cases	8	3	2
Performance in new market penetration	Buyer meetings hosted	cases	7	6	6
	Product exhibitions operated for partners	cases	0	0	1

1) For first-, second-, and third-tier partners 2) Support for creating jobs for youth (aged 15 and older and 30 and under)

#### Fair Trade Agreement

Category	Unit	2020	2021	2022
Samsung SDI – first-tier partners	No. of companies	110	111	112
First-tier partners – second-tier partners	cases	129	136	157
Second-tier partners – third-tier partners	cases	40	45	54

### Partnership with Value-Chain Partners and Community – Togetherness with Community

#### Employees' Participation in CSR Programs

Category	Unit	2020	2021	2022
Participation in CSR programs	%	99.1	93.6	96.8
Volunteer hours per employee in Korea <sup>1)</sup>	hours/no. of persons	8.7	8.5	8.2

1) For one day each year, 8 hours are set as the target volunteer hour to encourage volunteering

#### Major CSR Achievements

Category	Unit	2020	2021	2022	
Samsung SW Academy for Youth <sup>1)</sup>	Beneficiaries	no. of persons	0	1,700	2,300
Samsung Junior SW Academy <sup>1)</sup>	Beneficiaries	no. of persons	0	0	43,720
Stepping Stone of Hope <sup>1)</sup>	Beneficiaries	no. of persons	0	0	6,284
Blue Elephant	Beneficiaries	no. of persons	93,862	259,339	308,941

1) This is jointly-conducted program, and the data reflect program results generated after Samsung SDI joined the program

#### CSR Expenditures

Category	Unit	2020	2021	2022
Management expense <sup>1)</sup>	KRW 100 million	16.5	13.2	18.1
Cash expenses <sup>2)</sup>	KRW 100 million	51.2	74.2	71.1

1) Directly-operated programs

2) Donations made (Samsung year-end love your neighbor funds, etc.)

## Sustainability Performance

### Accountability in Value-Chain – SCM Risk Management

#### S-Partner Certification

Category	Unit	2020	2021	2022
Domestic	No. of companies	29	33	23
Overseas	No. of companies	26	42	49 <sup>1)</sup>
Total	No. of companies	55	75	72
Partners who failed to meet the certification criteria	No. of companies	0	0	0

1) 37 partners were certified with document evaluations

#### Third-party Audit for Cobalt Smelters & Refiners

Category	Unit	2020	2021	2022
Smelters & refiners reported	No. of companies	24	23	23
Smelters & refiners certified <sup>1)</sup>	No. of companies	21	22	22
Conformant	No. of companies	8	18	21
Active	No. of companies	13	4	0
Other third-party audit <sup>2)</sup>	No. of companies	0	0	1

1) Smelters and refiners participating in active RMI audit programs are included

2) Companies that have conducted independent third-party audits that are equivalent to RMI RMAP

### Accountability in Value-Chain – Labor · Human Rights

#### Employee Data

Category	Unit	2020	2021	2022	
Total	No. of persons	27,984	28,913	30,716	
By gender	Male	No. of persons	21,194	21,923	23,077
	Female	No. of persons	6,790	6,990	7,639
By region	Korea	No. of persons	10,705	10,859	11,412
	Asia (excluding Korea)	No. of persons	12,058	12,108	11,988
	Europe	No. of persons	4,959	5,572	6,691
	Americas	No. of persons	262	374	625
By age	Under 30	No. of persons	12,284	12,134	12,353
	30~49	No. of persons	14,065	14,943	16,313
	50 and older	No. of persons	1,635	1,836	2,050
By employment type	Full-time	No. of persons	24,392	25,051	25,964
	Contract	No. of persons	1,454	1,316	1,453
	Dispatched <sup>1)</sup>	No. of persons	2,138	2,546	3,299
By nationality	Korea	No. of persons	10,948	11,142	11,771
	China	No. of persons	6,704	7,121	6,875
	Malaysia	No. of persons	2,345	2,142	2,558
	Vietnam	No. of persons	2,545	2,483	1,972
	USA	No. of persons	236	348	572
	Others	No. of persons	5,206	5,677	6,968

1) Domestic dispatched employees mainly assume positions of executive secretaries and interpreters, and overseas dispatched employees are responsible for manufacturing and packaging inspection among others.



## Sustainability Performance

### Recruitment

Category	Unit	2020	2021	2022	
Total	No. of persons	5,512	6,271	7,218	
By gender	Male	No. of persons	4,144	4,864	4,988
	Female	No. of persons	1,368	1,407	2,230
By region	Domestic	No. of persons	367	494	914
	Overseas	No. of persons	5,145	5,777	6,304

### Turnover<sup>1)</sup>

Category	Unit	2020	2021 <sup>2)</sup>	2022	
Total turnover	%	11.3	15.3	12.9	
- Domestic	%	1.8	2.9	2.9	
- Overseas	%	17.7	23.4	19.4	
Voluntary turnover	%	10.8	14.8	12.0	
- Domestic	%	1.6	2.6	2.6	
- Overseas	%	16.9	22.7	18.2	
By gender	Male	%	10.8	15.3	12.1
	Female	%	12.9	15.6	15.1
By region	Asia	%	16.9	13.3	11.4
	Europe	%	21.4	28.7	20.6
	Americas	%	15.0	24.6	21.8
By age	Under 30	%	16.9	25.6	19.8
	30~49	%	7.9	8.8	8.8
	50 and older	%	5.3	11.1	10.5

1) Turnover data is calculated by dividing the annual number of resignees by the annual average number of employees.

2) Restatements were made for 2021 turnover data due to change in calculation formula

### Organizational Culture

Category	Unit	2020	2021	2022
Samsung Culture Index (SCI) assessment scores <sup>1)</sup>	Point	70.9	70.0	73.5
Employees who participated in SCI	%	93.8	89.5	92.5
Change Agents selected	No. of persons	283	292 <sup>2)</sup>	298

1) Restatements were made for 2020 and 2021 data as the data were re-calculated in line with the SCI calculation method updated in 2022

2) Restatements were made due to the re-calculation of employees selected

### Diversity and Social Equality

Category	Unit	2020	2021	2022		
Employees with disabilities <sup>1)</sup>	No. of persons	172	178	181		
Local recruitment	Leaders at overseas worksites <sup>2)</sup>	No. of persons	241	271	280	
	Locally-hired leaders	No. of persons	117	158	154	
	Locally-hired leaders	%	48.5	58.3	55.0	
By job category	Development	%	20.1	20.7	23.0	
	Manufacturing	%	25.7	37.1	33.5	
	Quality & EHS	%	36.5	38.9	33.0	
	Sales & marketing	%	25.5	25.4	30.8	
	Others	%	18.0	14.9	19.3	
Female employees	By region	Korea	%	13.6	14.1	15.9
		Asia (excluding Korea)	%	34.7	34.8	32.0
		Europe	%	20.7	19.4	25.8
By position	Americas	%	24.8	27.8	32.0	
	Rank-and-file employees	%	26.9	26.7	27.3	
	Managers (senior professionals and higher positions)	%	11.2	12.0	13.0	
Executives (unregistered executive and higher positions)	%	6.7	8.6	8.5		

1) Based on the number of employees reported to Korea Employment Agency for Persons with Disabilities (KEAD)

2) Leader positions include group/team leaders and other leaders assuming such official positions.

### Training

Category	Unit	2020	2021	2022
Total training expenditures	KRW 100 million	75	87	122
Accumulated No. of trainees	No. of persons	50,628	55,621	70,339
Training hours per employee <sup>1)</sup>	Hours/No. of persons	90	91	93
Training expenses per employee <sup>1)</sup>	KRW/No. of persons	765,132	876,066	1,005,018
Sales and marketing training expenses	KRW million	9	11	22

1) Based in Korea

### Remuneration<sup>1)</sup>

Category	Unit	2020	2021	2022
Wage	KRW million	1,184,894	1,463,694	1,669,172
Retirement benefits	KRW million	84,213	102,604	96,900

1) There is no gender-based disparity in wage

## Sustainability Performance

### Welfare and Benefits

Category	Unit	2020	2021	2022
Welfare and benefits expenditures	KRW million	366,873	421,096	499,220
Return-to-work ratio <sup>1)</sup>	%	100.0	95.5	99.5
Parental leave				
Return-to-work and retention ratio <sup>2)</sup>	%	100.0	99.5	99.0

1) Ratio of employees who returned to work in the concerned year after taking parental leave the previous year

2) Ratio of employees who worked 12 months and longer among those who returned to work after taking parental leave the previous year

### Employee Grievance Handling (domestic)

Category	Unit	2020	2021	2022
Grievances submitted	cases	1,193	1,245	1,402
Grievance handling rate	%	100	100	100

### Grievances Submitted in 2022

Category	Unit	2022
By channel	Online	cases
		1,402
		%
		100
Offline		cases
		-
		%
		-

Category	Unit	2022
Working conditions		cases
		668
		%
		47.6
Benefits		cases
		337
		%
		24
By type of grievance	HR system	cases
		216
		%
		15.4
Health and safety		cases
		131
		%
		9.3
Others		cases
		50
		%
		3.6

## Credibility in Corporate Governance – Advanced BOD

### Composition of the BOD

Category	Unit	2020	2021	2022
Members of the BOD	Executive Director	No. of persons	3	3
		3		
	Independent Director	No. of persons	4	4
			4	
Number of female registered executives	No. of persons	1	1	1

### Operation of the BOD

Category	Unit	2020	2021	2022
Average BOD Attendance	Total	%	93.5	93.7
		100		
	Executive Director	%	87.9	85.2
		100		
	Independent Director	%	92.7	100
			100	
Average BOD tenure	Total	years	1.6	2.3
		2.9 <sup>1)</sup>		

1) As of Jun. 30, 2023

# Sustainability Performance

## Credibility in Corporate Governance – Ethics & Compliance

### Compliance and Ethics Training Provided to Employees in 2022

Category		Unit	Headquarters	Subsidiary (Overseas Corporation)	Partner
Compliance	Employees subject to training	No. of persons	12,787	194	102
	Employees who completed the training <sup>1)</sup>	No. of persons	12,547	194	102
	Completion rate	%	98%	100%	100%
Anti-corruption/ethics <sup>1)</sup>	Employees subject to training	No. of persons	10,825	17,359	-
	Employees who completed the training <sup>2)</sup>	No. of persons	11,546	16,813	-
	Completion rate	%	107%	97%	-

1) Partners are not subject to anti-corruption/ethics training

2) Based on cumulative numbers

### Worksite Corruption Risk Assessment

Category		Unit	2020	2021	2022
Total worksites		No. of worksites	27	27	31
Worksites identified as at risk (number)	Total	No. of worksites	2 <sup>1)</sup>	-	3
	Domestic	No. of worksites	1	-	1
	Overseas	No. of worksites	1	-	2
Worksites identified as at risk (rate)		%	7	-	10

1) Restatements were made for 2020 data as overseas operations were included in the scope of calculation

### Compliance Audit

Category	Unit	2020	2021	2022
Compliance audits performed	cases	22	26	22

### Corruption Audits and Resulting Disciplinary Measures Taken

Category		Unit	2020	2021	2022
Disciplinary measure taken as a result of corruption audits <sup>1)</sup>	Total	No. of persons	13	1	4
	Domestic	No. of persons	12	-	4
	Overseas	No. of persons	1	1	-
Business partners whose contract was terminated in relation to corruption		No. of companies	-	-	4

1) Restatements were made for 2020 and 2021 data as overseas operations were included in the scope of calculation

### Information Security Training

Category		Unit	2020	2021	2022
Information security training		No. of persons	7,639	8,786	10,502
Data privacy training provided to employees handling personal data		No. of persons	388	388	370

# GRI Standards 2021 Index

## General Disclosures(GRI 2)

Topic	No.	Disclosure	Pages	Note
GRI 2: The organization and its reporting practices	2-1	Organizational details	6p	
	2-2	Entities included in the organization's sustainability reporting	-	7p of the Annual Report(in PDF format)
	2-3	Reporting period, frequency and contact point	2p	
	2-4	Restatements of information	-	Annotations were made when deemed necessary
	2-5	External assurance	109p	
GRI 2: Activities and workers	2-6	Activities, value chain and other business relationships	6p, 8-11p, 17p, 91p	
	2-7	Employees	96p	
	2-8	Workers who are not employees	96p	
GRI 2: Governance	2-9	Governance structure and composition	72p, 74p	
	2-10	Nomination and selection of the highest governance body	73p	
	2-11	Chair of the highest governance body	72p	
	2-12	Role of the highest governance body in overseeing the management of impacts	19-20p, 24p, 40p, 74p	
	2-13	Delegation of responsibility for managing impacts	19-21p	
	2-14	Role of the highest governance body in sustainability reporting	19-20p, 40p	
	2-15	Conflicts of interest	73p	
	2-16	Communication of critical concerns	20p	
	2-17	Collective knowledge of the highest governance body	72-73p	
	2-18	Evaluation of the performance of the highest governance body	74p	
	2-19	Remuneration policies	74p	
	2-20	Process to determine remuneration	74p	
	2-21	Annual total compensation ratio	74p	215p, 218p of the Annual Report (in PDF format)

Topic	No.	Disclosure	Pages	Note
GRI 2: Strategy, policies and practices	2-22	Statement on sustainable development strategy	5p	
	2-23	Policy commitments	18p, 65p, 76p, 78p	
	2-24	Embedding policy commitments	54p, 65-66p, 76-78p	
	2-25	Processes to remediate negative impacts	60-61p, 65-66p, 77-78p	
	2-26	Mechanisms for seeking advice and raising concerns	77-78p	
	2-27	Compliance with laws and regulations	84-85p	178p of the Annual Report (in PDF format) <sup>1)</sup>
	2-28	Membership associations	26p	
	GRI 2: Stakeholder engagement	2-29	Approach to stakeholder engagement	82p
2-30		Collective bargaining agreements	65-66p	

1) Orders to pay fines were given by the Fair Trade Commission in relation to the two cases of alleged violation of the Fair Trade Act and the Subcontract Act, and administrative proceedings are pending currently

## Material Topics(GRI 3)

Topic	No.	Disclosure	Pages	Note
GRI 3: Material topics	3-1	Process to determine material topics	87p	
	3-2	List of material topics	88p	
	3-3	Management of material topics	28p, 30-38p, 40-49p, 60-64p	



## GRI Standards 2021 Index

### Economic Performance(GRI 200)

Topic	Disclosure	Pages	Note
GRI 201: Economic Performance	201-2	Financial implications and other risks an opportunities due to climate change	40-41p
	201-3	Defined benefit plan obligations and other retirement plans	97p
GRI 202: Market Presence	202-2	Proportion of senior management hired from the local community	97p
GRI 203: Indirect Economic Impacts	203-1	Infrastructure investments and service supported	95p
	203-2	Significant indirect economic impacts	54-55p
GRI 204: Procurement Practices	204-1	Proportion of spending on local suppliers	95p
GRI 205: Anti-Corruption	205-1	Operations assessed for risks related to corruption	99p
	205-2	Communication and training about anti-corruption policies and procedures	76-78p
	205-3	Confirmed incidents of corruption and actions taken	99p
GRI 206: Anti-Competitive Behavior	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	- No such case
GRI 207: Tax	207-1	Approach to tax	91p
	207-4	Country-by-country reporting	91p

### Environmental Performance(GRI 300)

Topic	Disclosure	Pages	Note
GRI 301: Materials	301-1	Materials used by weight or volume	- Not applicable
	301-2	Recycled input materials used	49p, 94p
	301-3	Reclaimed products and their packaging materials	- Not applicable
GRI 302: Energy	302-1	Energy consumption within the organization	42-44p, 93p
	302-2	Energy consumption outside of the organization	- Not applicable
	302-3	Energy intensity	93p
	302-4	Reduction of energy consumption	42-44p, 93p
	302-5	Reductions in energy requirements of products and services	- Not applicable
GRI 303: Water and Effluents	303-1	Interactions with water as a shared resource	50p
	303-2	Management of water discharge-related impacts	50p
	303-4	Water withdrawal	50p, 94p
GRI 305: Emissions	303-5	Water discharge	50p, 94p
	305-1	Direct (Scope 1) GHG emissions	93p
	305-2	Energy indirect (Scope 2) GHG emissions	93p
	305-3	Other indirect (Scope 3) GHG emissions	93p
	305-4	GHG emissions intensity	93p
	305-5	Reduction of GHG emissions	44p
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	51p, 94p
GRI 306: Waste	306-1	Waste generation and significant waste-related impacts	50p
	306-2	Management of significant waste-related impacts	50p
	306-3	Waste generated	50p, 94p
	306-4	Waste diverted from disposal	50p, 94p
	306-5	Waste directed to disposal	50p, 94p
GRI 308: Supplier Environmental	308-1	New suppliers that were screened using environmental criteria	61p
	308-2	Negative environmental impacts in the supply chain and actions taken	61p

## GRI Standards 2021 Index

### Social Performance(GRI 400)

Topic	Disclosure	Pages	Note
GRI 401: Employment	401-1	New employee hires and employee turnover	97p
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	66p
	401-3	Parental leave	66p, 98p
GRI 403: Occupational Health and Safety	403-1	Occupational health and safety management system	30-33p
	403-2	Hazard identification, risk assessment, and incident investigation	30-33p
	403-3	Occupational health services	33p
	403-4	Worker participation, consultation, and communication on occupational health and safety	31-32p
	403-5	Worker training on occupational health and safety	31p
	403-6	Promotion of worker health	33p
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	32-33p, 35-37p
	403-8	Workers covered by an occupational health and safety management system	31p
	403-9	Work-related injuries	92p
	403-10	Work-related ill health	33p, 92p
GRI 404: Training and Education	404-1	Average hours of training per year per employee	97p
	404-2	Programs for upgrading employee skills and transition assistance programs	67-68p
GRI 405: Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	72-73p, 98p
	405-2	Ratio of basic salary and remuneration of women to men	- There is no gender-based disparity in wage
GRI 406: Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	- No such case
GRI 408: Child Labor	408-1	Operations and suppliers at significant risk for incidents of child labor	- No such case
GRI 409: Forced or Compulsory Labor	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	- No such case

Topic	Disclosure	Pages	Note
GRI 413: Local Communities	413-1	Operations with local community engagement, impact assessments, and development programs	56-58p
	414-1	New suppliers that were screened using social criteria	61p
GRI 414: Supplier Social Assessment	414-2	Negative social impacts in the supply chain and actions taken	61p
	GRI 415: Public Policy	415-1	Political contributions
GRI 416: Customer Health and Safety		416-1	Assessment of the health and safety impacts of product and service categories
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	- No such case
GRI 417: Marketing and Labeling	417-2	Incidents of non-compliance concerning product and service information and labeling	- No such case
	417-3	Incidents of non-compliance concerning marketing communications	- No such case
GRI 418: Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	- No such case

## SASB Index

### SASB Sustainability Disclosure - Hardware Industry & Fuel cells and Industrial Batteries

#### Accounting Metrics

Topic	Code	Accounting Metric	Pages (Reference)
Product Security	TC-HW-230a.1	Description of approach to identifying and addressing data security risks in products	79p
Employee Diversity & Inclusion	TC-HW-330a.1	Percentage of gender and racial/ethnic group representation for (1) management, (2) technical staff, and (3) all other employees	96-98p
Product Lifecycle Management	TC-HW-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances	Samsung SDI complies with global regulations such as EU RoHS and REACH as well as national laws. In addition, all raw materials and components that go into our products are subject to rigorous pre-inspections and follow-up management.
	TC-HW-410a.4	Weight of end-of-life products and e-waste recovered, percentage recycled	N/A * Please refer to 48-49p for Samsung SDI's efforts regarding recycling and reuse
Supply Chain Management	TC-HW-430a.1	Percentage of Tier 1 supplier facilities audited in the RBA Validated Audit Process (VAP) or equivalent, by (a) all facilities and (b) high-risk facilities	61p
	TC-HW-430a.2	Tier 1 suppliers' (1) non-conformance rate with the RBA Validated Audit Process (VAP) or equivalent, and (2) associated corrective action rate for (a) priority non-conformances and (b) other non-conformances	61p
Energy Management	RR-FC130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	42p, 93p
Workforce Health & Safety	RR-FC-320a.1	(1) Total recordable incident rate (TRIR) and (2) fatality rate	92p
	RR-FC-320a.2	Description of efforts to assess, monitor, and reduce exposure of workforce to human health hazards	30p, 33p
Product End-of-life Management	RR-FC-410b.3	Description of approach to manage use, reclamation, and disposal of hazardous materials	33p
Materials Sourcing	TC-HW-440a.1 RR-FC-440a.1	Description of the management of risks associated with the use of critical materials	62-63p

#### Activity Metric

Code	Activity Metric	Pages (Reference)
TC-HW-000.A	Number of units produced by product category	91p
TC-HW-000.C	Percentage of production from owned facilities	15-16p of the Annual Report(in PDF format)
RR-FC-000.A	Number of units sold <sup>1)</sup> (Unit: 1,000 cells)	2,346,817
RR-FC-000.B	Total storage capacity of batteries sold (Unit: MWh)	60,589

1) The sum of small-sized batteries, automotive batteries, and ESS batteries based on the number of cells

# TCFD Index








## TCFD Index

Category	TCFD Recommendation	Pages (Reference)
Governance	a) Describe the board's oversight of climate-related risks and opportunities	40p
	b) Describe management's role in assessing and managing climate-related risks and opportunities	40p
Strategy	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	40-41p
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	40-41p
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	N/A
Risk Management	a) Describe the organization's processes for identifying and assessing climate-related risks	47p
	b) Describe the organization's processes for managing climate-related risks	47p
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	47p
Metrics and Targets	a) Disclose the metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process	28p, 42p, 44p, 47p
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	42p, 45p, 93p
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	22p, 42p, 47p









# UN SDGs


Samsung SDI engages in a wide spectrum of activities centered around its sustainability management strategies and material issues to contribute to the attainment of the UN Sustainable Development goals.

UN SDGs	Samsung SDI's Contribution	Pages (Reference)
 <p><b>3</b> GOOD HEALTH AND WELL-BEING</p>	<p><b>Good Health and Well-being</b></p> <ul style="list-style-type: none"> <li>Strengthen the accountability of top management and the Board of Directors for health and safety operations, bolster the dedicated EHS organization, and operate an integrated company-wide EHS system</li> <li>Advance the verification of product safety and establish a hazardous substances management system</li> <li>Conduct workplace risk assessment and partner safety assessment</li> <li>Support employees' regular health check-ups, work environment surveys, health training, and illness prevention</li> </ul>	30-33p, 35p
 <p><b>4</b> QUALITY EDUCATION</p>	<p><b>Quality Education</b></p> <ul style="list-style-type: none"> <li>Operate bachelor/master/doctoral degree courses to nurture talent for battery business and engage in industry-academia partnerships</li> <li>Implement education programs with Samsung including Samsung SW Academy for Youth, Samsung Junior SW Academy, Dream Class, and Blue Elephant</li> </ul>	56-57p, 67-68p
 <p><b>5</b> GENDER EQUALITY</p>	<p><b>Gender Equality</b></p> <ul style="list-style-type: none"> <li>Focus on the management of diversity metrics including the proportion of female managers</li> <li>Provide maternal/paternal and parental leave irrespective gender and expand support beyond statutory obligations</li> <li>Encourage organizational-level discussions on diversity to minimize conflicts among different genders, nationalities and generations</li> </ul>	65-66p, 97p
 <p><b>6</b> CLEAN WATER AND SANITATION</p>	<p><b>Clean Water and Sanitation</b></p> <ul style="list-style-type: none"> <li>Manage our mid/long-term water reuse goal and implement water withdrawal reduction projects by 2050</li> <li>Manage the discharge of water pollutants on an on-going basis by applying discharge thresholds more stringent than legal standards</li> <li>Install monitoring sensors at chemical storage facilities and stormwater outlets to prevent the discharge of water pollutants as well as devices to block and recover pollutants along the stormwater passages</li> </ul>	50p
 <p><b>7</b> AFFORDABLE AND CLEAN ENERGY</p>	<p><b>Affordable and Clean Energy</b></p> <ul style="list-style-type: none"> <li>Join the RE100 and purchase RECs in line with the goal of transitioning to 100% renewable energy by 2050</li> <li>Support global operations with energy technology and roll out best practices to implement energy conservation projects</li> <li>Strengthen the energy management system at worksites and implement taskforce activities to pursue innovation for our power use structure</li> </ul>	42-44p
 <p><b>8</b> DECENT WORK AND ECONOMIC GROWTH</p>	<p><b>Decent Work and Economic Growth</b></p> <ul style="list-style-type: none"> <li>Contribute to expanding the eco-friendly industry through our small-sized Li-ion battery, automotive/ESS battery, and electronics material supply</li> <li>Assist partners in bolstering their management capabilities and competitiveness through win-win cooperation consulting and win-win smart factory initiative</li> <li>Contribute to job creation by recruiting 7,218 persons at domestic and overseas operations and by helping 49 persons land a job through partner recruitment and talent development support programs in 2022</li> </ul>	8-11p, 54-55p
 <p><b>9</b> INDUSTRY INNOVATION AND INFRASTRUCTURE</p>	<p><b>Industry, Innovation and Infrastructure</b></p> <ul style="list-style-type: none"> <li>Contribute to nurturing outstanding industrial workforce through industry-academia cooperation with third-party institutions and domestic/overseas prestigious universities</li> <li>Provide financing support through shared growth funds and others to help partners improve their operational stability</li> <li>Reach 5.4% in R&amp;D investments against 2022 sales</li> <li>Ensure security in the domestic technology area including automotive battery-related national core technology through information security management system development and patent management</li> </ul>	13-14p, 55p, 79p

# UN SDGs

UN SDGs	Samsung SDI's Contribution	Pages (Reference)
	<p><b>Reduced Inequalities</b></p> <ul style="list-style-type: none"> <li>• Implement blind recruitment by eliminating all personal information – academic level, gender, nationality, religion, etc. – from applications in the hiring process</li> <li>• Ensure zero gender-based disparities in wage</li> <li>• Give precedence to socially-underprivileged groups, including men of national merit and people with disabilities</li> </ul>	65p, 97p
	<p><b>Sustainable Cities and Communities</b></p> <ul style="list-style-type: none"> <li>• Contribute to reducing waste discharge by developing a system to recycle end-of-life batteries and scraps generated from the manufacturing process</li> <li>• Operate appropriate pollution prevention devices for each of the emitting facilities installed at worksites to manage air pollutants and mitigate impact on the nearby community</li> <li>• Create School Forests to reduce particulate matter levels at elementary schools located in the vicinity of worksites</li> </ul>	48-51p, 58p
	<p><b>Responsible Consumption and Production</b></p> <ul style="list-style-type: none"> <li>• Establish a closed-loop process to reclaim and recycle process scraps and end-of-life batteries</li> <li>• Minimize waste to landfill and reduce water consumption by increasing water reuse</li> <li>• Perform extended Life Cycle Assessments (LCA) from manufacturing to disposal to analyze environmental impact and reduce loads throughout the entire process</li> <li>• Ensure supply chain traceability for all major minerals and use minerals verified through third-party audits or certified by competent bodies</li> </ul>	46p, 48-50p, 60-63p
	<p><b>Climate Action</b></p> <ul style="list-style-type: none"> <li>• Systematically implement tasks to achieve net zero emissions and transition to 100% renewables by 2050</li> <li>• Expand products certified under carbon footprint programs and reduce products' environmental impact</li> <li>• Switch to 100% zero-emission vehicles for corporate fleet vehicles by 2030</li> <li>• Calculate Scope 3 GHG emissions, and identify partners' GHG emissions through our CDP Supply Chain membership and collaborate for reduction projects</li> </ul>	40-47p
	<p><b>Peace, Justice and Strong Institutions</b></p> <ul style="list-style-type: none"> <li>• Disseminate a culture of compliance at all levels through compliance control standards, compliance system operation, and various compliance activities</li> <li>• Make ethics/anti-corruption assessments across the board and facilitate ethics/compliance whistleblowing</li> <li>• Preemptively manage human rights and compliance risk through compliance reviews and blind surveys at domestic/overseas operations</li> <li>• Identify and improve partners' labor and ethics risks through S-Partner Certification assessments</li> </ul>	60-61p, 65p, 76-78p
	<p><b>Partnerships for the Goals</b></p> <ul style="list-style-type: none"> <li>• Join the UNGC to endorse its 10 principles in the areas of human rights, labor, environment, and anti-corruption</li> <li>• Join global initiatives across diverse areas, including renewable energy, sustainable battery value chain, conflict minerals, and ecosystem protection</li> <li>• Establish and operate a range of communication channels with major stakeholder groups, including customers, shareholder/investors, employees, partners, communities/civic organizations, industry associations/universities/research institutes, governments, and media.</li> </ul>	26p, 82p

# GHG Verification Opinion



## GHG Verification Opinion

Samsung SDI Co., Ltd.

**Verification Scope**  
 Korean Standards Association conducted verification of Samsung SDI Co., Ltd.'s 2022 domestic greenhouse gas statement for direct emission (Scope1) and indirect emission (Scope2).

**Verification Standards and Guidelines**  
 · Guidance for reporting and verification of GHG emissions trading scheme (No. 2022-279 provided by Ministry of Environment, Republic of Korea)  
 · ISO 14064-1, 3 : 2006  
 · 2006 IPCC Guidelines for National Greenhouse Gas Inventories

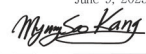
**Level of Assurance**  
 Samsung SDI Co., Ltd.'s GHG emissions satisfies a reasonable level of assurance (less than ±2.5% of total emissions).

**Verification Conclusion**  
 As a result of verification by the verification team, no serious errors, omissions, or false facts were found in the statement. Therefore, Korean Standards Association confirms that GHG emission data has been properly calculated.

**2022 Domestic GHG Emissions** (Unit : tCO2eq)

No	Business Site	GHG Emissions		
		Scope1	Scope2	Total
1	Cheonan Plant	31,898	199,386	231,283
2	Ulsan Plant	19,227	159,292	178,519
3	Giheung HQ and R&D	5,963	19,779	25,742
4	Suwon Future Technology Campus	256	39,153	39,409
5	Gumi Plant	4,383	55,996	60,379
6	Cheongju Plant	23,229	22,910	46,138
7	Uiwang Plant	20	937	957
8	Rental Building (Samsung Electronics Secho Office)	14	63	76
<b>Total</b>		<b>84,991</b>	<b>497,516</b>	<b>582,503</b>

\* Note : Total emissions differ from the sum of direct/indirect emissions because each business site cuts and adds up to less than a decimal point.

June 9, 2023  


**KOREAN STANDARDS ASSOCIATION**



## GHG Verification Opinion

Samsung SDI Co., Ltd.

**Verification Scope**  
 Korean Standards Association conducted verification of Samsung SDI Co., Ltd.'s greenhouse gas from overseas business sites for direct emission (Scope1) and indirect emission (Scope2).

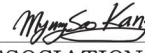
· Boundary : Direct Emission (Scope1), Indirect Emission (Scope2)  
 · Year : 2022

**Verification Criteria and Guidelines**  
 · Guidance for reporting and verification of GHG emissions trading scheme (No. 2022-279 provided by Ministry of Environment, Republic of Korea)  
 · ISO 14064-1, 3 : 2006  
 · 2006 IPCC Guidelines for National Greenhouse Gas Inventories  
 · WRI(World Resources Institute) Greenhouse Gas Protocol


**Level of Assurance and Responsibility**  
 Korean Standard Association provides a limited guarantee level of assurance for the company's GHG emissions, Samsung SDI Co., Ltd. is responsible for fairly disclosing its GHG verification opinions, and the responsibility of the Korean Standards Association is limited to guaranteeing GHG emissions.

**Verification Limit**  
 GHG emissions can be affected by factors such as data limit and uncertainties in the scope of verification, and inherent limitations may exist accordingly.

**Verification Conclusion**  
 No errors or false facts were found in Samsung SDI Co., Ltd.'s GHG emissions verified through the ISO 14064-3 verification procedure within the scope of verification.

June 9, 2023  


**KOREAN STANDARDS ASSOCIATION**



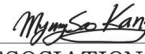
## GHG Verification Opinion

Samsung SDI Co., Ltd.

**2022 Overseas GHG Emissions** (Unit : tCO2eq)

No	Business site	Location-based			Market-based		
		Scope1	Scope2	Total	Scope1	Scope2	Total
1	Tianjin, China(TSDI)	59,576	445,816	505,392	59,576	411,749	471,325
2	Xi'an, China(SAPB)	14,742	149,497	164,238	14,742	149,497	164,238
3	Wuxi, China(SDIW)	2,745	75,897	78,640	2,745	75,897	78,640
4	Vietnam(SDIV)	143	7,358	7,500	143	7,358	7,500
5	Malaysia(SDIEM)	17,230	165,200	182,430	17,230	165,200	182,430
6	Austria(SDIAS)	7	251	257	7	251	257
7	USA(SDIABS)	453	2,522	2,975	453	2,522	2,975
8	Hungary(SDIHU)	62,232	163,448	225,680	62,232	108,632	170,864
<b>Total</b>		<b>157,128</b>	<b>1,009,989</b>	<b>1,167,112</b>	<b>157,128</b>	<b>921,106</b>	<b>1,078,229</b>

\* Note : Total emissions differ from the sum of direct/indirect emissions because each business site cuts and adds up to less than a decimal point.

June 9, 2023  


**KOREAN STANDARDS ASSOCIATION**

# GHG Verification Opinion

## GHG Verification Opinion

Samsung SDI Co., Ltd.

**Verification Scope**

Korean Standards Association conducted verification of Samsung SDI Co., Ltd.'s Scope3 GHG emissions establishment in 2022.

- Boundary : Scope3
  - Category 1. Purchased goods and services
  - Category 2. Capital goods
  - Category 3. Fuel and energy-related activities(not included in Scope1 or 2)
  - Category 4. Upstream transportation and distribution
  - Category 5. Waste generated in operations
  - Category 6. Business travel
  - Category 7. Employee commuting
  - Category 8. Upstream leased assets
  - Category 9. Downstream transportation and distribution
  - Category 12. End-of-life treatment of sold product
  - Category 13. Downstream leased assets
  - Category 15. Investments
- Year : 2022

**Verification Criteria and Guidelines**

- Guidance for reporting and verification of GHG emissions trading scheme (No. 2022-279 provided by Ministry of Environment, Republic of Korea)
- ISO 14064-1, 3 : 2006
- 2006 IPCC Guidelines for National Greenhouse Gas Inventories
- WRI(World Resources Institute) Greenhouse Gas Protocol
- The Corporate Value Chain (Scope3) Accounting and Reporting Standard

**Level of Assurance and Responsibility**

Korean Standard Association provides a limited guarantee level of assurance for the company's GHG emissions.

**Verification Limit**

GHG emissions can be affected by factors such as data limit and uncertainties in the scope of verification, and inherent limitations may exist accordingly.

**Verification Conclusion**

No errors or false facts were found in Samsung SDI Co., Ltd.'s GHG emissions verified through the ISO 14064-3 verification procedure within the scope of verification.

1/2

**2022 Scope3 GHG Emissions** (Unit : tCO2eq)

Category	GHG Emissions
Category 1. Purchased goods and services	789,059
Category 2. Capital goods	12,097
Category 3. Fuel and energy-related activities (not included in Scope1 or 2)	103,527
Category 4. Upstream transportation and distribution	118,927
Category 5. Waste generated in operations	33,810
Category 6. Business travel	6,726
Category 7. Employee commuting	7,446
Category 8. Upstream leased assets	104
Category 9. Downstream transportation and distribution	35,234
Category 12. End-of-life treatment of sold product	95,269
Category 13. Downstream leased assets	24
Category 15. Investments	1,713
<b>Total</b>	<b>1,203,935</b>

June 9, 2023

**KOREAN STANDARDS ASSOCIATION**

2/2



# Independent Assurance Statement

## To readers of SAMSUNG SDI Sustainability Report 2023

### Introduction

Korea Management Registrar (KMR) was commissioned by SAMSUNG SDI to conduct an independent assurance of its Sustainability Report 2023 (the "Report"). The data and its presentation in the Report is the sole responsibility of the management of SAMSUNG SDI. KMR's responsibility is to perform an assurance engagement as agreed upon in our agreement with SAMSUNG SDI and issue an assurance statement.

### Scope and Standards

SAMSUNG SDI described its sustainability performance and activities in the Report. Our Assurance Team carried out an assurance engagement in accordance with the AA1000AS v3 and KMR's assurance standard SRV1000. We are providing a Type 2, moderate level assurance. We evaluated the adherence to the AA1000AP (2018) principles of inclusivity, materiality, responsiveness and impact, and the reliability of the information and data provided using the Global Reporting Initiative (GRI) Index provided below. The opinion expressed in the Assurance Statement has been formed at the materiality of the professional judgment of our Assurance Team.

Confirmation that the Report was prepared in accordance with GRI standards 2021 was included in the scope of the assurance. We have reviewed the topic-specific disclosures of standards which were identified in the materiality assessment process.

- GRI Sustainability Reporting Standards 2021
- Universal standards
- Topic specific standards
  - GRI 301 : Materials
  - GRI 302 : Energy
  - GRI 305 : Emissions
  - GRI 308 : Supplier Environmental Assessment
  - GRI 403 : Occupational Health and Safety
  - GRI 414 : Supplier Social Assessment
  - GRI 416 : Customer Health and Safety

As for the reporting boundary, the engagement excludes the data and information of SAMSUNG SDI's partners, suppliers and any third parties.

### KMR's Approach

To perform an assurance engagement within an agreed scope of assessment using the standards outlined above, our Assurance Team undertook the following activities as part of the engagement:

- reviewed the overall Report;
- reviewed materiality assessment methodology and the assessment report;
- evaluated sustainability strategies, performance data management system, and processes;
- interviewed people in charge of preparing the Report;
- reviewed the reliability of the Report's performance data and conducted data sampling;
- assessed the reliability of information using independent external sources such as Financial Supervisory Service's DART and public databases.

### Limitations and Recommendations

KMR's assurance engagement is based on the assumption that the data and information provided by SAMSUNG SDI to us as part of our review are provided in good faith. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied. To address this, we referred to independent external sources such as DART and National Greenhouse Gas Management System (NGMS) and public databases to challenge the quality and reliability of the information provided.

### Conclusion and Opinion

Based on the document reviews and interviews, we had several discussions with SAMSUNG SDI on the revision of the Report. We reviewed the Report's final version in order to make sure that our recommendations for improvement and revision have been reflected. Based on the work performed, it is our opinion that the Report was not prepared in accordance with the AA1000AP (2018) principles.

### Inclusivity

SAMSUNG SDI has developed and maintained different stakeholder communication channels at all levels to announce and fulfill its responsibilities to the stakeholders. Nothing comes to our attention to suggest that there is a key stakeholder group left out in the process. The organization makes efforts to properly reflect opinions and expectations into its strategies.

### Materiality

SAMSUNG SDI has a unique materiality assessment process to decide the impact of issues identified on its sustainability performance. We have not found any material topics left out in the process.

### Responsiveness

SAMSUNG SDI prioritized material issues to provide a comprehensive, balanced report of performance, responses, and future plans regarding them. We did not find anything to suggest that data and information disclosed in the Report do not give a fair representation of SAMSUNG SDI's actions.

### Impact

SAMSUNG SDI identifies and monitors the direct and indirect impacts of material topics found through the materiality assessment, and quantifies such impacts as much as possible.

### Reliability of Specific Sustainability Performance Information

In addition to the adherence to AA1000AP (2018) principles, we have assessed the reliability of economic, environmental, and social performance data related to sustainability performance. We interviewed the in-charge persons and reviewed information on a sampling basis and supporting documents as well as external sources and public databases to confirm that the disclosed data is reliable. Any intentional error or misstatement is not noted from the data and information disclosed in the Report.

### Competence and Independence

KMR maintains a comprehensive system of quality control including documented policies and procedures in accordance with ISO/IEC 17021 : 2015 - Requirements for bodies providing audit and certification of management systems. This engagement was carried out by an independent team of sustainability assurance professionals. KMR has no other contract with SAMSUNG SDI and did not provide any services to SAMSUNG SDI that could compromise the independence of our work.

June 2023 Seoul, Korea



CEO E. J. Hwang



[www.samsungsdi.co.kr](http://www.samsungsdi.co.kr)