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Evolving into a Leading ESG Company

SK SPECIALTY SUSTAINABILITY REPORT



About This Report

This publication is SK specialty's second Sustainability Report, covering performance and plans related to ESG (Environment, Social, and Governance) and enabling us to communicate transparently with our various stakeholders. We will continue to share our progress on sustainable development and strengthen stakeholder trust in our company.

Reporting Standard

- Core Option of the GRI (Global Reporting Initiative) Standards
- SASB (Sustainability Accounting Standards Board), Resource Transformation Sector, Chemicals Sustainability Accounting Standard
- TCFD (Task Force on Climate-related Financial Disclosures) Recommendations
- UNGC (UN Global Compact) 10 Principles
- UN SDGs (Sustainability Development Goals)

Major Changes in Reporting

In December 2021, SK materials Co., Ltd. established SK materials (currently SK specialty Co., Ltd.), a specialty gas corporation through a split-off merger with SK Inc., and changed its name to SK specialty as of May 2022.

Scope and Boundaries of Reporting

- 1st of Jan. 2021 to 31st of Dec. 2021
- Data for January to November 2021 was calculated based on the pre-existing corporation (SK materials Co., Ltd.), whilst data for December was calculated based on the new corporation (SK specialty Co., Ltd.). Data calculated using other methods are indicated with additional explanations and annotations.

* For some key performance items, the report contains data up to June 2022.

Assurance

This report was assured by the With Accounting Corporation, an independent external verification agency, to ensure the objectivity and transparency of its preparation (Independent Assurance Statement, p.79)



Cover Story

A symbolic representation of ESG management at SK specialty, which connects products, services, people, and environment

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Interactive User Guide

SK specialty Sustainability Report is created in interactive PDF and allows the viewer to go directly to the relevant websites through hyperlinks in the document. Click on the icons on the navigation bar at the top of each page to go directly to the cover page, the table of contents, the previous or next page, or print.

-  Go to the cover page of the report.
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CEO Message



**Towards Becoming a Global No.1
Eco-friendly Specialty
Gas & Chemical Company**

Dear Stakeholders,

It is a pleasure to greet you under our new name, SK specialty.

On December 1, 2021, SK specialty was established as a specialty gas company through a de-merger of core business divisions from our predecessor company, SK materials. And in May of this year, we changed our corporate name from SK materials to SK specialty, with a vision of becoming a top global company with advanced expertise in specialty chemicals and gases. Moving forward, we will continue to write the story of SK specialty's growth, building on our longstanding know-how in this sector.

Even in the face of challenges arising from the COVID-19 pandemic, we have created unique value for our customers – recording KRW 622.9 billion of revenue and KRW 121.2 billion of operating profit in 2021. We have maintained the world's No.1 NF3 (Nitrogen Trifluoride) and WF6 (Tungsten Hexafluoride) producer and top 2 manufacturer of silicon vapor deposition gas in the specialty gas field, and are accelerating secure of additive technology, ultra-high purity refining technology, and product diversification in order to promote wet chemical business.

Meanwhile, our activities are not limited to the economic domain. Using SK Group's DBL management principles as a foundation, we strive to maximize our competitiveness through the balanced pursuit of both social and economic value. Further, to ensure our competitiveness in terms of ESG at a global level, we have internalized ESG across all areas of our business. We also published our first Sustainability Report last year to share our efforts and achievements with our internal and external stakeholders.

In June last year, SK specialty announced our commitment to take active responsibility for climate change through our 2030 Net Zero Declaration. This report outlines our specific plan to achieve Net Zero emissions, as well as the climate change governance that will be required through the journey. We have also included details of the sustainability issues most material to our company and stakeholders, such as enhancing value for our customers, creating a decent work environment, and managing a sustainable supply chain, and our targets related to these issues. Looking to the future, we will continue to actively communicate with the stakeholders about our efforts on climate change and across the ESG spectrum.

Aside from this, we take seriously our responsibilities and obligations towards achieving common global goals. As a member of the UN Global Compact, we adhere to the Ten Principles of the UNGC and strive to achieve the UN Sustainable Development Goals.

I hope that this report can serve as an opportunity to further improve the standard of ESG management of SK specialty. We endeavor to continue our role as a specialist in creating both economic and social value, and we appreciate your continued support and encouragement on our journey together.

Thank you.

CEO, SK specialty
Kyu-won Lee

K. W. Lee

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SK specialty Overview

SK specialty drives technological advancement through the production, sale, and integrated service delivery of key components for semiconductors, display panels, and batteries. In 2001, through our research and development, we were the first company in Korea to produce the specialty gas, NF3 (Nitrogen Trifluoride). Since then, we have become a global leading player in the global market with our competitiveness in the specialty gas industry – developing fluorinated or silicon products such as WF6 (Tungsten Hexafluoride) and SiH4 (Monosilane). We have expanded our product portfolio by stabilizing the supply chain of high-purity HF materials and have established a system to efficiently produce NF3 through process innovation since our incorporation into SK Group in 2016. SK specialty demonstrates excellent capabilities across the value chain, from R&D to process design, quality management, and SHE (Safety, Health, and Environment). Based on these competencies, we have secured strategic relationships and grown into a leading supplier of materials for our customers.

Global No.1

Eco-friendly Specialty Gas & Chemical Provider

SK specialty produces, sells, and provides comprehensive services for key materials for semiconductors, displays, and batteries.

Company Name	SK specialty Co., Ltd.
CEO	Lee, Kyu Won
Head Office	63, Gaheunggongdan-ro, Yeongju-si, Gyeongsangbuk-do 750-080 Korea
Date of Establishment	November 10, 1982

Total Assets	Credit Rating
KRW 1.55 trillion	A+
No. of Employees	Sales
801	KRW 622.9 billion
Operating Profits	* As of December 31, 2021, based on separate financial statements
KRW 121.2 billion	

Cleaning Gas

Global No.1

Korea's First and World-leading Manufacturer of NF3

SK specialty produces and sells nitrogen trifluoride (NF3), a chemical used in chamber cleaning after CVD, in manufacturing processes for semiconductors and displays. As the first manufacturer of NF3 in Korea, SK specialty has been providing its customers with a stable supply of high-quality NF3 through novel technology development and proactive investments in facilities since 2001.

Fluorinated Deposition Gas

Global No.1

Korea's First and World-leading Manufacturer of WF6

WF6 is a fluorinated deposition gas used in the manufacture of semiconductors. As the first manufacturer of WF6 in Korea, SK specialty has been providing the world's best WF6 product since 2004 and is now developing next-generation materials.

Silicon Deposition Gas

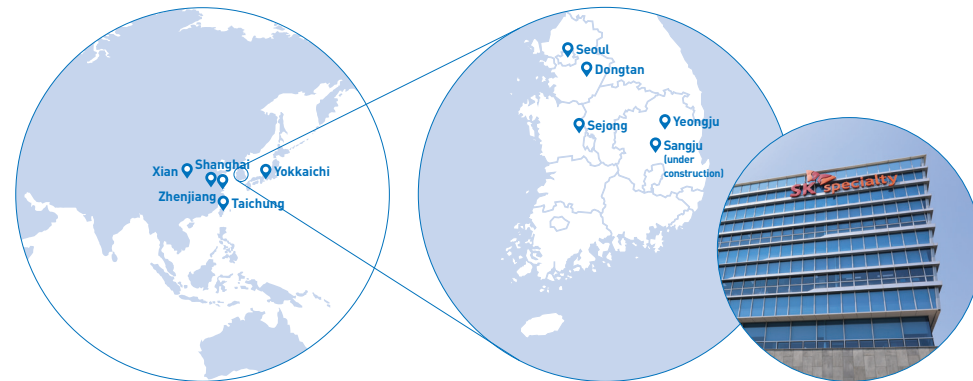
Global No.2

Korea's First and Only Manufacturer of SiH4

SiH4 is used in the manufacture of semiconductors, displays and photovoltaics, where it is employed for Si insulator film and Si anti-reflection layer deposition. SK specialty is Korea's first and only provider of SiH4. We are actively preparing for the domestic production and sales of SiH4, which is seeing increasing use as a key raw material in battery production.

Global Network

SK specialty has been expanding businesses operations worldwide: we now have global sites in China, Japan, and Taiwan. We operate an NF3 production plant in Jiangsu Province, China, and a total of four sales corporations in China, Japan, and Taiwan.



Domestic and Overseas Worksites

Domestic Entity	Location	Overseas Entity	Location	Type
SK specialty	Yeongju (Head office/Plant)	SK specialty Jiangsu Co., Ltd.	Zhenjiang, China	Production Plant
	Seoul (Sales/Support Office)	SK specialty Xian Co., Ltd.	Xian, China	Sales Corporation
	Sejong, Dongtan (R&D Center)	SK specialty Shanghai Co., Ltd.	Shanghai, China	Sales Corporation
	Sangju (Plant under construction)	SK specialty Japan Co., Ltd.	Yokkaichi, Japan	Sales Corporation
		SK specialty Taiwan Co., Ltd.	Taichung, Taiwan	Sales Corporation

Regional Sales * As of December 31, 2021

(Unit: KRW Million, %)

Classification	Separate Financial Statement		Consolidated Financial Statement	
	Sales	Sales ratio	Sales	Sales ratio
Domestic	425,679	68.3	440,288	65.8
Asia	188,200	30.2	220,356	32.9
China	71,433	11.5	112,119	16.7
Taiwan	79,334	12.7	71,696	10.7
Japan	37,433	6	36,541	5.5
Other (USA and Europe, etc)	9,015	1.5	8,983	1.3
Total	622,894	100.0	669,627	100.0

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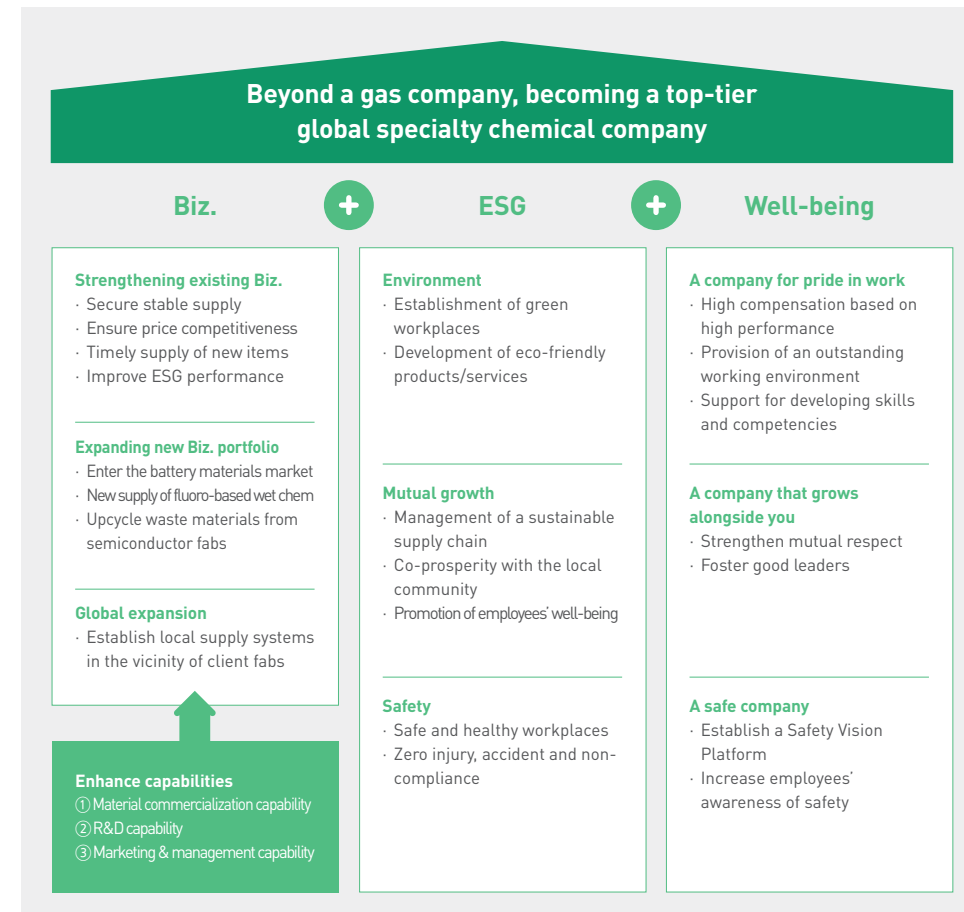
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Sustainability Strategy

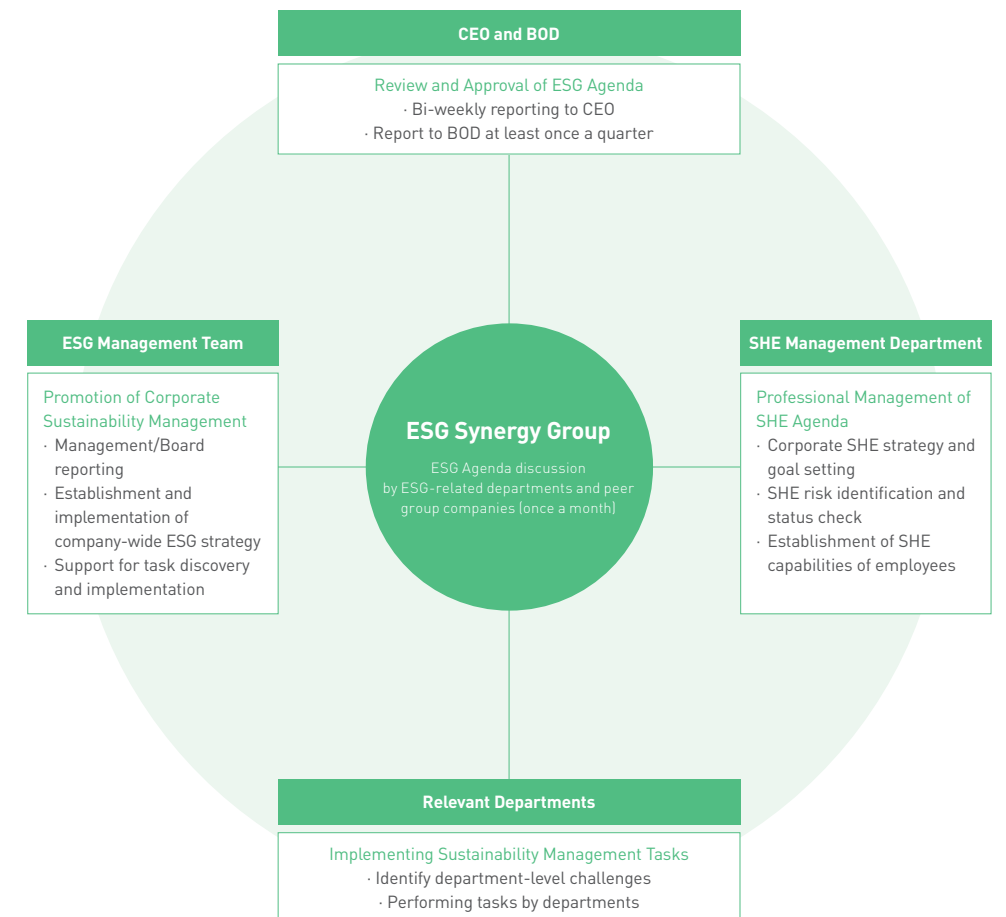
Since its incorporation into the SK Group in 2016, SK specialty has developed from a semiconductor cleaning gas company to a total semiconductor material company through the active expansion of its product portfolio. In a fast-changing and diversifying management environment, SK specialty has established Sustainable Strategy in 2021 to create high value for stakeholders. The strategy contains the direction to achieve a global No.1, not only in business areas but also in ESG approaches and the well-being of employees.

Sustainability Strategy



Sustainability Strategy Implementation Framework

SK specialty recognizes ESG management as a key element for sustainable growth and thereby mainstream ESG into the governance system. The CEO and BOD (Board of Directors) are strengthening their roles and responsibilities in sustainable management through key decisions in the ESG area. Meanwhile, the ESG Management Team is responsible for promoting sustainable management through the establishment and implementation of ESG strategies, and the SHE Management Department is responsible for establishing safety, health, and environmental strategies and managing performance. These ESG-related matters are integrated and managed through a 'ESG Synergy Group.'



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ESG-based New Business/Investment Activities

SK specialty applies ESG standards to new business development and investment activities to practice ESG management and strengthen the creation of social value (SV). We have established and operated an investment portfolio review policy that conducts ESG evaluations throughout the investment process: planning, screening, implementation, and follow-up management. An investment strategy committee has been established for a management reporting and approval process. New investments of more than 5/100 of equity capital shall be approved by the BOD. In addition, investment decisions are made based on SV potential of new business/investment portfolios, and SV impact is measured and its performance are monitored. We select ESG-related agenda among all follow-up management agendas, and we mark the agendas that must be reviewed in the investment plan. SK specialty plans to gradually expand investment in eco-friendly businesses, such as low-GWP* and waste resource upcycling products and CCUS development, in consideration of stakeholders' needs including the transition to a low-carbon society.

* GWP: Global Warming Potential

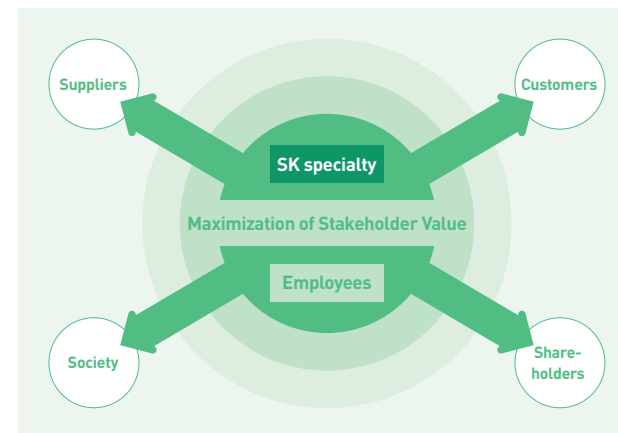
ESG Investment Review Process



Maximization of Stakeholder Value

Based on DBL (Double Bottom Line) management philosophy, SK specialty recognizes that social value (SV), such as a purpose and value of business activities, resolutions of social problems, trust with stakeholders, etc. is an essential element for increasing economic value (EV). We consider harmony with stakeholders as an important point of ESG strategy. In order to manage the value created by stakeholders and maintain a trustworthy relationship with them, we have conducted differentiated SV activities (e.g. Stakeholder Account), other than just one-time activities that are limited to short-term collaboration,

Framework for Stakeholder's Pursuit of Value



Stakeholder Account

SK specialty aims to contribute to the creation of EV and SV for stakeholders through Stakeholder Account activities and ultimately strengthen trustworthy relationships with them. In 2021, we focused on suppliers to derive collaborative tasks in terms of Shared Growth and ESG, and carried out activities to spread ESG management, such as providing trainings related to Net Zero/RE100. In 2022, we plan to enhance the sustainability of the supply chain through environmental consulting activities linked to ESG risk management by focusing on Scope 3 management and environmental capacity building. In particular, we expanded the range of stakeholders to customers and local communities and are promoting activities, such as product quality improvement, carbon emissions reduction, and local economy revitalization. Through these efforts, we plan to further expand the creation of EVs and SVs and build a mutual trust relationship to discover and carry out additional collaboration tasks in future.

Stakeholder Communication

SK specialty selects key stakeholders in order to promote sustainable strategy and operates various types of communication channels for key stakeholders. We collect opinions from stakeholders on major issues through communication channels and try to reflect them in management activities to create further value.

Stakeholders		Major Issues	Communication Channel
Investors		<ul style="list-style-type: none">· Creation of economic value· Protection of shareholder rights· Transparent governance	<ul style="list-style-type: none">· General meeting of shareholders· Website
Customers		<ul style="list-style-type: none">· Enhancement of price and quality competitiveness· Securing product safety· Mitigation of environmental impact	<ul style="list-style-type: none">· VOC* channel· Semiconductor Industry Exhibition· Industry associations· Website· YouTube Channel* Voice of Customers
Society	Suppliers	<ul style="list-style-type: none">· Support for shared growth· Creation of fair-trade environment· Improvement of work environment	<ul style="list-style-type: none">· Mutual Growth Council· Visiting workplaces· Website
	Local Communities	<ul style="list-style-type: none">· Solving social problems· Community development· Prevention of safety-related accidents and minimization of damage	<ul style="list-style-type: none">· Local institutions/organizations· NGOs· Discussions and meetings with residents· Website· YouTube Channel
Employees		<ul style="list-style-type: none">· Support for capacity building· Fair evaluation for performances and compensation· Balance between work and life· Respect for human rights and diversity· Enhancement of safety in workplaces	<ul style="list-style-type: none">· Intranet website bulletin board· Radio broadcasting· YouTube Channel· Facebook page· Website

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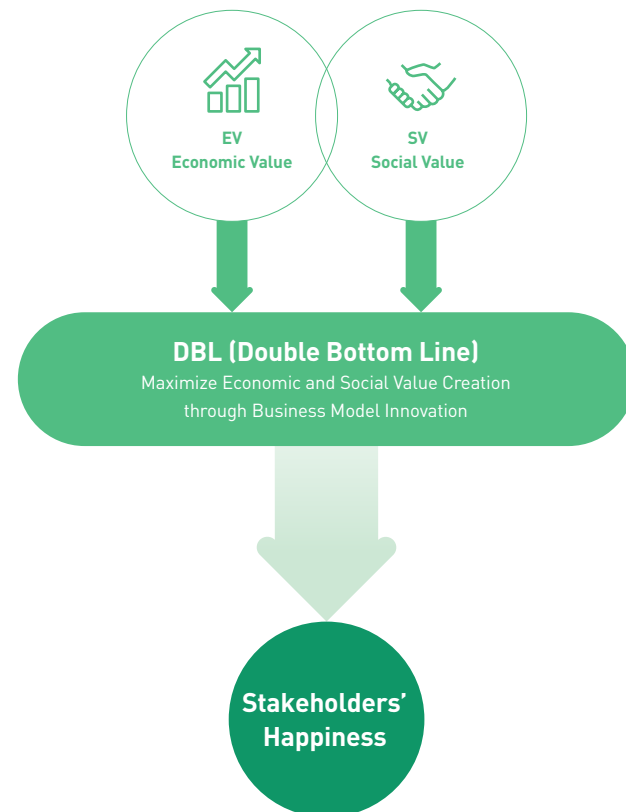
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DBL Management

Through DBL (Double Bottom Line) management, SK Group aims to maximize economic value (EV) and social value (SV) across its business activities. By fulfilling the needs of our stakeholders, including customers and society, we also pursue mutual growth while striving to create diverse values.

DBL Direction



ESG Performance Management System

Social Value Measurement System

SK Group has developed a monetary-based methodology for metrics on social value and measured social value since 2018, constantly increasing our social value creation, alongside our creation of economic value. In 2021, our social value measurement methodology, which was classified as indirect economic contribution, business social performance, and social contribution performance, was updated to better reflect ESG considerations with more detailed criteria. In 2021, SK specialty recorded a total of KRW 121.6 billion of indirect economic contributions and KRW 15.9 billion in social performance.

Total	KRW 109.6 billion			
Indirect Economic Contribution Performance	Any value from indirect contribution to the economy through corporate activities			KRW 121.6B
	Employment	Dividend	Tax payment	Welfare and Benefit
	10% ↑ KRW 84.7B	No dividends after spinoff of SK specialty	72% ↑ KRW 36B	KRW 0.9B (NEW)
E Environmental Performance	Environmental impact through product development/production/sales, resource consumption reduction, environmental pollution reduction, etc			KRW -28B
	Process	13% ↓ KRW 28B		
S Social Performance	Value created by social contribution to customers, employees, suppliers, communities, etc.			KRW 15.9B
	Products/Services	Processes (Labor & Mutual Growth)	Social Contribution	
	KRW 4.8B (NEW)	7% ↑ KRW 5.8B	61% ↑ KRW 5.3B	
G Governance Performance	Social responsibility by enhancing soundness of governance			Monetary value to be measured
	BOD-centered ESG management system	<ul style="list-style-type: none"> Strengthening ESG responsibilities of BOD and management and alignment of compensation with ESG performance Reflecting ESG issues in key decisions 		
	Enhancing transparency and integrity	<ul style="list-style-type: none"> Establishment of anti-corruption policy and advancement of ethical management process Improving transparency and independence of BOD 		
	Enhancing ESG information disclosure, Expanding global partnerships	<ul style="list-style-type: none"> ESG performance disclosure and active communication with stakeholders Engagement in various domestic and international initiatives such as UNGC/Net Zero/RE100 		

* See p.68~70 for more detailed performance and formulas

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Social Value Activities of Employees

SK specialty conducts a range of activities to raise awareness of social value among its employees. In 2021, we shared major social value issues through education on SV/ESG, releasing letters, in-house broadcasts (gbs), a social contribution idea contest, and Haenggarae (meaning 'Happier Tomorrow') – a mobile app that employees can use daily to create social value.

Social Value Education

SK specialty carries out SV/ESG education and campaigns for all employees. In 2021, we provided customized education to our employees through in-house education programs and personalized curriculums for all those eligible to receive training. In addition, we conducted trainings about DBL management, ESG strategy, and case training to strengthen awareness of social values and ESG, as well as campaigns under the theme of environmental protection and social contribution to internalize the culture of SV creation.



Social Value Education Performance

Classification	2019	2020	2021
SV/ESG Online Education for Employees	-	3,517hours ¹⁾	1,772hours
On-site education	83 times	3 times ²⁾	5 times
Team Workshops/Campaigns	5 times	52 times	4 times

1) SK Group's online education platform, mySUNI, began full operations in 2020

2) A decrease in on-site education and an increase in online education due to COVID-19

Sharing Major Issues of Social Value

SK specialty shares information on SV/ESG concepts and issues with our employees through our ESG Letter and in-house broadcasts (gbs). The ESG Letter was sent out on three occasions and covered key topics related to ESG, Net Zero/RE100, etc. It also included a quiz to raise interest in the topic, resulting in high participation among employees. In-house broadcasting (gbs) was carried out 31 times to communicate with employees and share major issues and activities regarding social value of SK Group and SK specialty.

Key Performance on Social Value Issue Sharing

(Unit: ea)

Category	2019	2020	2021
ESG Letter	31	5	3
gbs	6	6	31

2021 gbs Topics

Month	Topic
January	Signing ceremony of 'Warm Contact With One Meal Project'
March	Free electric wheelchair charging station
April	Blood donation event
May	Dream Woodworking School
June	Job experience training
July	Happiness with Two Meal Project in Yeongju
August	SK affiliates in Gyeongsangbuk-do province signing ceremony for blood donation
September	Sending apples (same as 'apology' in Korean) campaign
November	Safety guide 'Safety Golden Rule' contest
December	KCGS selection of outstanding companies
	SK specialty sharing warmth

Social Contribution Idea Contest

SK specialty held our first "SV, Try Yourself" contest to actively reflect the opinions of our employees in our social contribution programs. Adopted ideas, such as the proposal to strengthen Job Experience Training Program, were put into practice following a review process, allowing employees' brilliant ideas to be realized as social contribution activities meaningful to both employees and society.

Haenggarae (Happier Tomorrow) App

In October 2020, SK specialty launched the Haenggarae (Happier Tomorrow) app, allowing employees to create social value and accumulate SV points. The points accumulated from employees' participation can be used to purchase products from social enterprises, make donations, or be redeemed for a half-day vacation coupon, thus encouraging a virtuous cycle of social value and active participation.

Since 2021, through the Hanggarae app, employees have been able to participate in and authenticate their participation in various activities – including daily activities such as walking up the stairs, using mugs instead of disposable cups, and minimizing food waste at the cafeteria, as well as social contribution activities such as donating blood and other in-house volunteer initiatives. In 2021, a total social value impact of KRW 47 million was generated. In 2022, we plan to create diverse Haenggarae programs such as limiting the use of plastics and reducing environmental pollution, reflecting ESG strategies, trends, and regulations. We also plan to promote employees' participation and strengthen ESG awareness by aligning Haenggarae programs with ESG strategy and expanding the platforms where they can redeem the SV reward points.

2021 Haenggarae SV Performance

Classification	Activities	Performance	SVEffect (KRW) ²⁾
Environment	Walking up stairs	367,545 floors	414,240
	Minimizing food waste	27,650 times	448,333
	Healthy walk	342 million steps	6,545,368
	Commuting bus	10,090km	209,449
Subtotal			7,617,390
Social	Blood donation ¹⁾	76 hours	6,662,080
	Voluntary work	842 hours	32,975,686
Subtotal			39,637,766
Total			47,255,156

1) 4 hours per blood donation (standard for recognition of social welfare volunteers by the Ministry of Health and Welfare)

2) Only the performance from January to November 2021 before the split-off was calculated.

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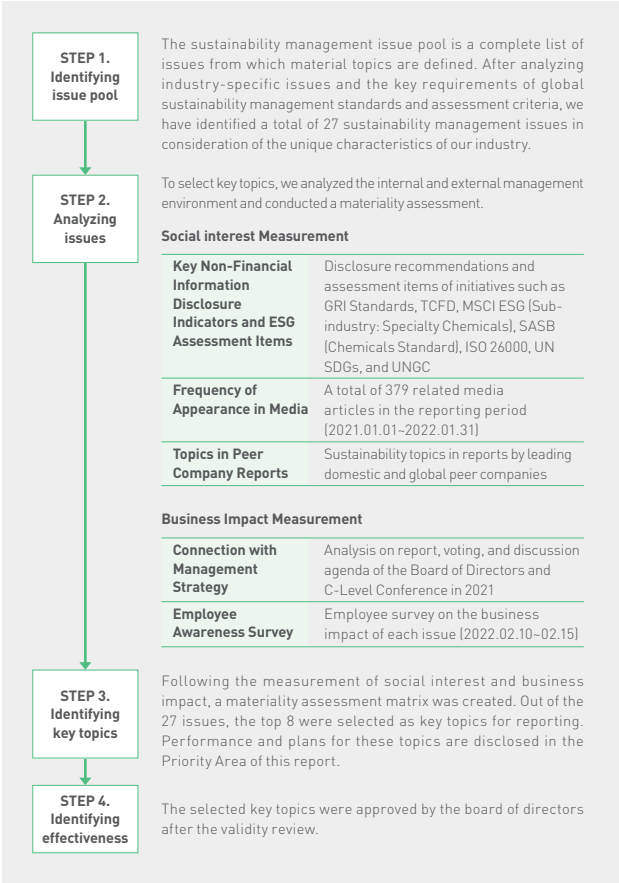
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Materiality Assessment

Through a materiality assessment, SK specialty has identified sustainable management topics requiring focused attention and the ESG needs of its stakeholders and reflected these in its management strategy. After establishing a sustainable management issue pool in accordance with the GRI Standards, an international guideline for sustainability reporting, key topics were selected by measuring social interest and business impact.

Materiality Assessment Process



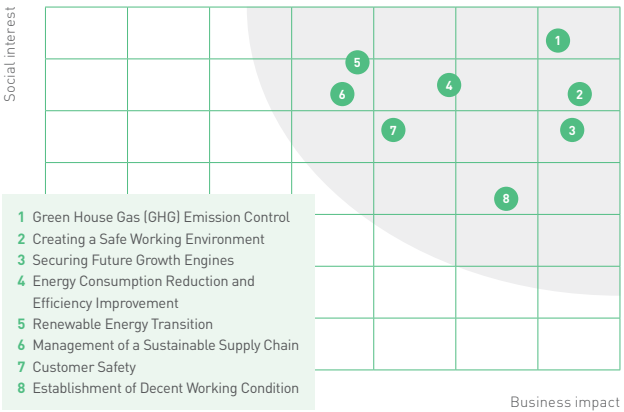
Materiality Assessment Results

Based on the result of the materiality assessment, which reflect business impact and social interest, the top 8 issues were selected as key topics for reporting. SK specialty has organized a 'Priority Area' that focuses on the performance and planning of these 8 key topics. Relevant information on the remaining 19 general topics is categorized into Environmental, Social and Governance topic areas and disclosed via the ESG Factbook.

Key Topics and Reporting Areas

SK specialty has divided the 8 selected key topics into 4 Priority Areas. Each Priority Area reflects our sustainable strategic direction to create value for our core stakeholders.

Materiality Assessment Matrix



Key Stakeholders	Key Topic		Priority Area	GRI Standards	SASB	TCFD	SDGs
	Ranking	Topic Name					
Investors/Customers	3	Securing Future Growth Engines	[p. 20~23] Enhancing Customer Value	-	RT-CH-410a.1	-	
	7	Customer Safety		416-1~2	-	-	
Environment/Suppliers	1	Green House Gas (GHG) Emission Management	[p. 14~19] Response to Climate Change	01-2 305-1~5	RT-CH-110a.1, RT-CH-110a.2	Governance a,b, Strategy a,b,c, Risk management a,b,c, Metrics and Targets a,b,c	
	4	Reducing Energy Use & Improving Efficiency		302-1~5	RT-CH-130a.1	-	
	5	Transition to Renewable Energy	[p. 29~32] Management of a Sustainable Supply Chain		RT-CH-130a.1	-	
	6	Management of a Sustainable Supply Chain		308-2 414-2	-	-	
Employees/LocalCommunities	2	Creating a Safe Working Environment	[p. 24~28] Establishing a Decent Working Environment	403-1~10	RT-CH-320a.1, RT-CH-320a.2, RT-CH-540a.1, RT-CH-540a.2	-	
	8	Establishing a Decent Working Environment		401-2~3	-	-	

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This Priority Area covers the four key areas that SK specialty is focusing on to ensure our sustainable growth. Each area was selected based on the results of our materiality assessment and our sustainability strategy. We seek to set challenging goals and continuously manage our performance to develop as a global specialty gas & chemical company that leads ESG management.

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Response to Climate Change

[Link to SDGs](#)

Global Trend

The Korean Government set the national goal of achieving carbon neutrality by 2050 and a roadmap to achieve the goal. The European Union (EU) and USA are preparing to introduce a carbon border tax, while the world is rushing to introduce various policies and regulations to respond to climate change. Large-scale investors have formed several global initiatives that assess the companies' sustainable management, regarding carbon emissions, water resources, and waste.

Corresponding to strengthened regulations related to climate change and the level of demand from stakeholders, SK specialty participates in climate change response activities to reduce negative environmental impacts and secure its sustainability.

Our Approach

SK specialty set goals for the "2030 SHE (Safety, Health, and Environment) Strategy" to respond to climate change, secure eco-friendliness, and establish safe workplaces. The Strategy includes goals for achieving Net Zero/RE100, wastewater and waste recycling rate, and safety accident improvements. We plan to evaluate the achievement level every year and transparently disclose such level to show SK specialty's commitment towards establishing a green workplace and become a leading company that minimizes environmental impact in workplace.

Opportunity

- Satisfying customer needs and securing competitiveness by providing environmental value and developing green technologies
- Solidifying the corporate identity as a green company and promoting product competitiveness through a proactive response to climate change

Challenge

- Tightened domestic and foreign regulations on climate change
- Increased level of demand from investors to respond to climate change

Major Achievements

2030 Net Zero Commitment announced

WF6 **Carbon footprint measurement and reduction certification**

One of the first Korean companies to join as of 2020
RE100

GHG intensity reduced compared to 2020 **6.8%**

Energy Management System Certification (ISO 50001) achieved

Key Stakeholders



Customers



Employees



Local Communities



Suppliers

Environmental Strategies and Goals

SK specialty has established mid- to long-term environmental strategies and an implementation roadmap for key tasks to achieve a 'sustainable green company created together with stakeholders.' We took the first step towards implementing Net Zero and secured the foundation for eco-friendly management through establishment of green workplaces, securing means of RE100 implementation, and acquisition of energy management system certification. In addition, we continue to make efforts to communicate with customers by enhancing corporate disclosure of climate-related information in accordance with CDP/TCFD, and measuring the carbon footprint of products. In 2022, we will continue to identify and implement environmental tasks such as wastewater recycling, RE100 implementation, and improvement of waste recycling rate.



* CDP CC/WS : CDP Climate Change/Water Security

2030 Vision Roadmap

	2021	2022	2025	2030
Net Zero RE100 ¹⁾	Net Zero 2% RE100 2%	Net Zero 8% RE100 9%	Net Zero 30% RE100 34%	Net Zero 100% RE100 100%
Wastewater Recycling	0%	18%	100%	100%
Waste Recycling	86%	ZWTL Silver ²⁾	95% or higher ZWTL Gold	95% or higher ZWTL Gold
Carbon Footprint Certification ³⁾	Measurement and Reduction (WF6)	Measurement and Reduction (Maintain certification)	Measurement and Reduction (Expansion of certification) - SiH4 certification in 2023	Carbon Neutral

1) Net Zero/RE100 target is based on Business as Usual (BAU) estimates without reduction activities and includes the boundary of SK specialty Jiangsu Co., Ltd. In addition, the reduction target includes green premium, but after 2025, we plan to achieve 2030 Net Zero/RE100 by reducing green premium purchases, while expanding direct PPA and REC.

2) ZWTL: Zero Waste to Landfill; rating based on recycling rate with zero waste landfill (Silver: 90% or higher, Gold: 95% or higher)

3) Carbon Footprint Certification: A certification given to products that meet carbon footprint calculation standards for the entire carbon treatment process from production to disposal, certified by The Carbon Trust, a non-profit organization in the UK

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Carbon Management System

Climate Change Response System

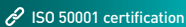
In 2021, SK specialty established not only the ESG Management Team in charge of ESG strategy establishment, implementation, and improvement tasks, but also the SHE Management Department to manage company-wide SHE strategy, while improving its organization system for sustainability and climate change response.

In May 2021, we revised the BOD regulations to strengthen the governance system to ensure any ESG agenda related to climate change should be reported to the BOD. Accordingly, SK specialty's Net Zero and RE100 goals and its plans to secure implementation means are reported to the BOD Every month, we report to the CEO about the performance and activity plans related to energy, water, air, and waste, including trends in domestic and global climate change regulations as well as company-wide SHE objectives and performances.

The CEO and the BOD are involved in decision-making on key issues such as management plans or investments related to climate change. As a result, Net Zero/RE100 was declared in June 2021, SHE strategy was established in December 2021, and Voluntary Carbon Emission Purchase Plan was approved in March 2022.

Establishment of Energy Management system

: Certified for the ISO 50001



In 2021, SK specialty Yeongju Plant and Seoul Office introduced ISO 50001 certification to establish an energy management system that can collect and analyze energy data, prevent energy waste, and enable efficient energy use. The certification is expected to contribute to SK specialty's climate change response activities by minimizing unnecessary energy use and GHG emissions.

As of 2021

Certified for the ISO 50001

SK specialty's 2030 Net Zero Implementation

2030 Net Zero Commitment

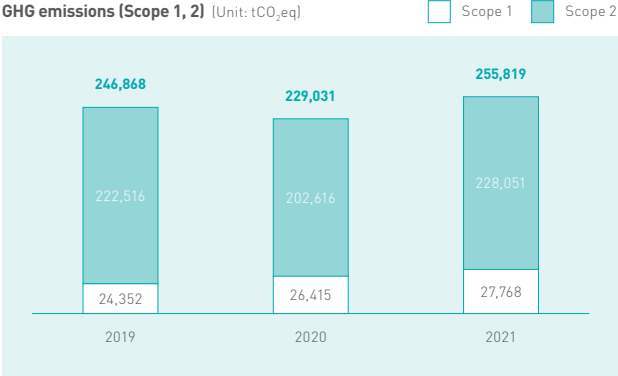
SK specialty declared to achieve Net Zero¹⁾ and RE100²⁾ by 2030 to clarify its commitment to international efforts to address climate change and to provide eco-friendly value to communities and stakeholders. The declaration shows a very preemptive reduction goal that exceeds the Nationally Determined Contribution (NDC)³⁾, which aims to reduce 40% of total GHG emissions in 2018 by 2030. We plan to mitigate GHG emissions throughout our management activities, including not only Scope 1 and 2, regulated by law in Korea, but also Scope 3.

- 1) Net Zero: Net Zero refers to balancing the amount of greenhouse gas emitted with the amount removed from the atmosphere
- 2) RE100: Renewable Energy 100%, a voluntary campaign to get all electricity energy needed by companies from renewable resource through purchasing or self-producing by 2050
- 3) Nationally Determined Contribution: a non-binding national plan highlighting targets for greenhouse gas emission reduction in accordance with the Paris Agreement

GHG Emissions

In addition to calculating Scope 1 and 2 emissions, which is required under the domestic Emissions Trading Act, SK specialty has calculated scope 3 emissions - going beyond our organizational boundaries and covering our suppliers - since 2020, and we have been disclosing this data via initiatives such as CDP.

In 2021, though total greenhouse gas emissions increased compared to 2020 due to greater production, improved energy efficiency and the introduction of small solar power facilities enabled greenhouse gas emissions per unit of production to improve by 6.8%.



GHG Emissions Reduction Measures

SK specialty strives to secure various reduction measures such as direct reduction, expansion of renewable energy use, and offset reduction to achieve Net Zero and RE100. We are developing NF3 recovery and disposal technology for direct reduction to reduce more than 99% of NF3 vented. We have secured green premium¹⁾ and renewable energy Power Purchase Agreement (PPA)²⁾ to continuously expand the use of renewable energy and conducted awareness improvement activities such as a 'cost reduction/energy reduction idea contest.' In addition, we will continue to invest in carbon reduction projects outside the organizational boundaries to carry out offset reduction activities, in addition to direct and indirect reduction methods within the organizational boundaries.

- 1) Green Premium: A system in which electricity consumers pay a certain premium above the general electricity rate to selectively purchase renewable energy
- 2) PPA: A system in which a Power Purchase Agreement (PPA) is signed between renewable energy generators and electricity consumers

GHG Emissions*

Classification	Unit	2019	2020	2021
GHG Emissions	tCO ₂ eq	246,868	229,031	255,819
Scope 1	tCO ₂ eq	24,352	26,415	27,768
Scope 2	tCO ₂ eq	222,516	202,616	228,051
GHG Emissions Intensity	tCO ₂ eq / KRW 1 million	0.54	0.44	0.41

* Emissions from NF3 will be disclosed after the measurement system is established.

Energy Consumption

Classification	Unit	2019	2020	2021
Total energy consumption	TJ	5,053.6	4,684.4	5,303.0
Electricity	TJ	4,581.6	4,171.8	4,765.0
Gas (LNG)	TJ	458.0	498.4	524.0
Gasoline	TJ	1.8	1.5	1.0
Diesel	TJ	12.2	12.7	13.0
Energy consumption intensity	TJ/KRW million	0.01112	0.00901	0.00851

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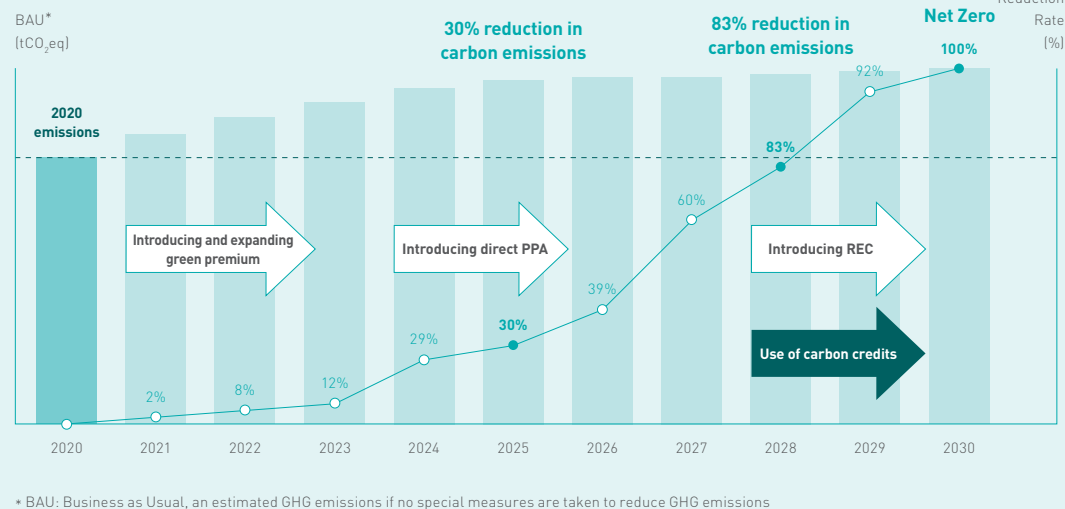
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01 RE100 Implementation

02 Reduction in Processes

03 Carbon Offset

2030 Carbon Neutral Roadmap



RE100 Implementation

In December 2020, SK specialty joined RE100 (Renewable Energy 100), which is organized by a multinational nonprofit organization, The Climate Group. RE100 is a global initiative bringing together businesses committed to 100% use of renewable electricity, and its members must achieve transitioning 100% of their power consumption to renewable energy sources such as wind and solar energy by 2050.

SK specialty has set a goal to achieve RE100 early by 2030 in order to respond more actively to climate change issues, and we have established a relevant strategy to complete our mission. SK specialty used about 2% (10,300 MWh) of renewable energy through the Green Premium system as of February 2021 and expand the proportion of renewable energy use by about 6%. We are working to sign a PPA agreement through a renewable energy generation project to secure a stable supply of renewable energy in the long term, and we plan to actively introduce new renewable energy to obtain REC* in 2028.

* REC: Renewable Energy Certificate, a certificate issued when 1 MWh of renewable energy power is produced

Enhancing Response to Climate Change in the Process

In addition to activities to reduce GHG emissions by procuring renewable energy, SK specialty continues to innovate its production process to directly reduce GHG emissions. We hold performance management meetings led by the CEO to regularly draw items that increase energy efficiency and reduce the energy use and monitor their performance.

In 2021, the amount of power lost in the electrolysis process was reduced through energy efficiency improvement activities such as the application of a pump inverter¹⁾ and improvement of the blower pulley²⁾ while reducing the overall power usage and cost. In addition, we reduced the LNG consumption by about 7,966 Nm³ by reducing the steam usage by altering the operation condition of D-2/D-3 process of SiH₄ production process. We have conducted a range of power saving tasks and made efforts to reduce the consumption of LNG for fuel. In 2022, we plan to reduce power consumption by improving fluorescent lamps of cell room and upgrading the time sequence of process operation.

1) Pump inverter: an inverter that controls a pump's motor rotation speed

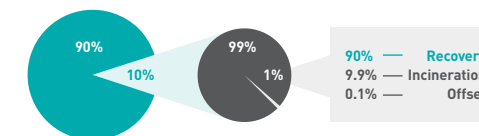
2) Blower pulley: a wheel and axle that transmit power to a blower

Securing NF3 Recovery and Disposal Technology

NF3, one of SK specialty's products, is not subject to domestic GHG regulations; however, it is classified as one of the top seven greenhouse gases internationally, with a GWP of 17,400. Accordingly, we recognized greenhouse gases caused by NF3 venting as a priority task and included NF3 reduction in the scope of our Net Zero implementation.

We plan to establish a system by the end of 2022 to accurately measure the amount of NF3 vented in our production processes and thus clarify our Net Zero implementation plan. Moreover, in September 2021, we began developing recovery and disposal technology to reduce vented NF3 to nearly zero. Through testing, we confirmed that we can recover more than 90% of the vented NF3. Aside from this, we are developing a plan to address incineration and offsetting by securing processing systems and carbon credits.

Recovery and Disposal of Vented NF3

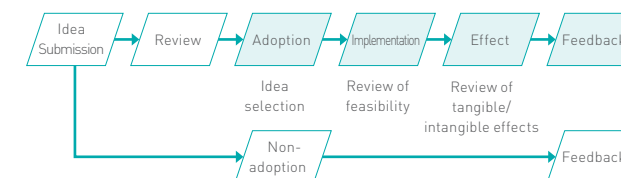


Employees Energy Saving Idea Proposal System

SK specialty has been holding a 'Cost Reduction/Energy Use Reduction Idea Contest' for 7 months to raise employees' awareness of importance of energy saving and present their opinions. The contest was started from April 2022 and will be continued next year. Submitted ideas will be implemented through internal evaluation. Employees are encouraged to participate in the contest, as rewards will be given to employees who are selected. When any tangible and intangible effects are created from an idea, the Review Committee will conduct a secondary evaluation and give additional reward to the idea according to NPV*.

* NPV: Net Present Value, a value of future cash flow into the present value. If it is greater than '0,' it has high investment value.

Proposal implementation system



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Securing Carbon Credit

SK specialty is actively investing in the carbon credit¹⁾ to reduce carbon emissions and secure means of implementing Net Zero. We are working to contribute to global carbon reduction efforts by reducing carbon generated outside the organizational boundaries of SK specialty.

SK specialty has implemented the carbon credit offsetting through the UN CDM²⁾ project since 2020. In 2021, we secured 100,000 tons of voluntary carbon credits through overseas afforestation projects. In the future, SK specialty will continue to actively engage in all activities that can contribute to reducing GHG emissions, such as direct reduction, RE100 implementation, and carbon offset activities, so as to achieve the 2030 Net Zero target preemptively.

1) Carbon credit: A carbon credit is a type of greenhouse gas emission trading. It means that businesses with low potential carbon reduction purchase carbon credits instead of direct carbon reduction to reduce costs.

2) CDM: Clean Development Mechanism is a carbon offset scheme that allows developed countries to claim the emissions saved by their funding of GHG emissions-reducing projects in other countries as part of their own efforts to meet international emissions targets.

Improving GHG Emissions Reduction

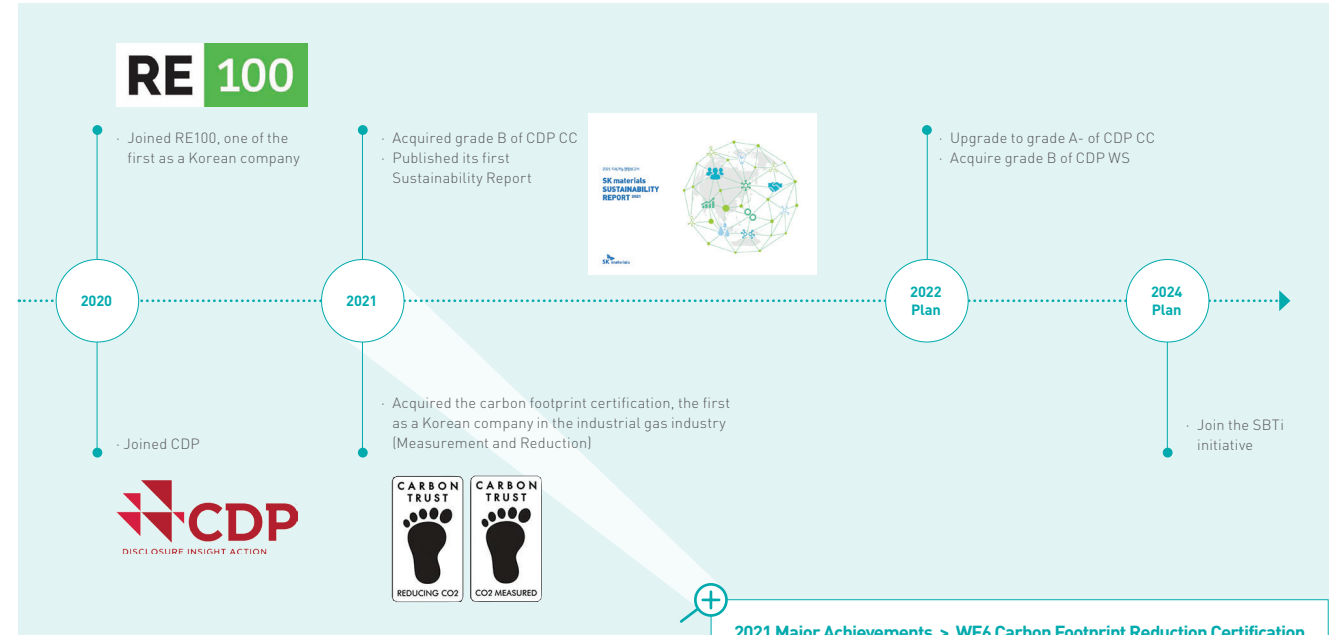
SK specialty recognizes the importance of employees' participation in climate change response activities and thus implements awareness improvement activities. We encourage the members to participate in daily environment-friendly activities such as 'taking the stairs in the workplace,' 'using shuttle bus or public transports when commuting,' and 'minimizing food waste.' We have launched a daily social problem-solving platform for all employees called 'Haenggarae,' which allows them to accumulate points through participating in eco-friendly activities. In 2021, we reduced 73 tons of carbon in our daily lives through eco-friendly activities such as a digital pollution prevention and a waste reduction campaign as well as proper sorting and recycling of trash and waste batteries, frequent arrangement of mailboxes, and use of reusable containers.

We share various climate change response activities that employees can practice through SV Letter. In 2021, we introduced the meaning and domestic/international trend of Net Zero and related activities of SK specialty, and held a quiz event to raise understanding of employees and lay the foundation for the practical implementation of direct reduction activities to achieve Net Zero.

Environmental Performance Disclosure

Respond to Green Initiative

SK specialty has been continuously strengthening its efforts to transparently disclose climate-related information by participating in RE100 and CDP since 2020 and publishing its first Sustainability Report in 2021. Along with the Net Zero Declaration, we responded to CDP Climate Change (CC) for the first time in 2021. Following this, we will further expand our disclosure and response to green initiatives, by publishing the Sustainability Report in accordance with GRI and SASB/TCFD standards every year with specific ESG information, encompassing GHG emissions reduction and annual performance, and joining SBTi in 2024.



2021 Major Achievements > WF6 Carbon Footprint Reduction Certification

In 2021, SK specialty became the first company in the industrial gas industry that acquired a carbon footprint 'measurement' and 'reduction' certification for tungsten hexafluoride (WF6). We have acquired a carbon footprint 'measurement' certification by calculating GHG emissions from the production to disposal of tungsten hexafluoride in accordance with the carbon footprint assessment standards. Furthermore, we have acquired a carbon footprint 'reduction' certification in recognition of our carbon reduction performance of about 5% compared to 2020. In result, SK specialty strengthens its eco-friendly competitiveness in the global market with the carbon footprint marks. We will continue to make a variety of products with the carbon footprint reduction certification marks, and strive to obtain a 'carbon neutral' certification by 2030.

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TCFD Report

Three Axes for Net Zero

SK specialty introduced three key axes to achieve Net Zero Goal: A handle - Governance that manages and supervises climate change response activities to set the direction toward Net Zero, and two engines that help us reach the Net Zero goal - Climate Change Response Strategy and Risk Management to assess climate-related risks and opportunities.

Governance

Role of BOD

The BOD of SK specialty has the authority to make decisions on investments, budgets and plans to respond to climate change issues. The CEO's role of reporting to the BOD was stipulated on the overall ESG issues, including climate change, through the revision of the BOD regulations in 2021. Accordingly, any issues directly related to carbon emissions, such as Net Zero/RE100, are regularly reported to the BOD. The BOD is responsible for recognizing and controlling potential risks throughout the business including any issues that are not directly related to climate change and ESG.

Role of the Management

The CEO of SK specialty has the highest responsibility in managing the climate change agenda, following the BOD. The Management promotes response to climate change at the company-wide level, and plays a comprehensive decision-making role so that strategies and related activities can be linked not only to short-term but also to mid- to long-term management strategies and budget management.

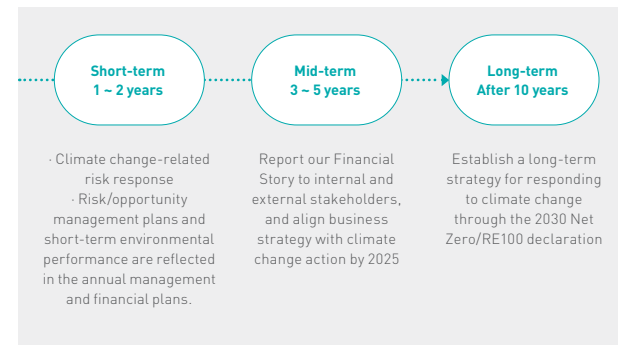
The responsible departments regularly report climate change regulatory trends and environmental performance such as energy/water to the Management every month, and manage inquiries and requests related to climate change from customers and investment institutions. The CEO shares the agenda at the SK Group level and seeks common solutions at the Environmental Business Committee, and draws up solutions specialized for SK specialty.

SK specialty reflects carbon emission performance in management and company-wide KPIs so that these efforts can be translated into actual results, and encourages all employees as well as the Management to recognize the significance of mitigating carbon emissions and achieve environmental goals.

Strategy

Each year, SK specialty goes through a process of identifying and evaluating company-wide risks and opportunities related to climate change. We evaluate the severity and potential of risks to its major tasks and issues and stakeholder demands and expectations, and constantly improve its management process. We have analyzed the occurrence factors of risks and their short/mid/long-term business impact, and we are reflecting those factors to our mid- to long-term business strategy.

Short/medium/long-term Risk Response Strategies



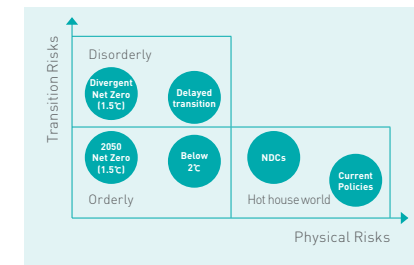
Classification	Climate Risks/Opportunities	Potential Financial Impact	Responses
Implementation Risk	Current Regulation	<div>Price increase in carbon credits, reinforced environmental disclosure obligations, etc</div> <div>· Increased operating costs (compliance costs, etc.) due to the rise of carbon credit prices</div> <div>· Amortization due to policy changes and increased NDC regulations</div>	We monitor government regulation trends and domestic and foreign carbon credit prices on a daily basis, conduct consulting on current status of regulations and emission control through external advice, and identify internal GHG emissions reduction activities.
	New Regulation	<div>Regulation of HFC reduction due to Kigali Amendment*</div> <div>· Operational impact on import and sale of HFC substances</div> <div>· Increased operating costs for developing substitutes for HFC used in semi-conductor processes (new and alternative technology R&D, capital investment, etc.)</div>	We have established a preemptive response system by identifying global trends, and we plan to convert existing refrigerants to low GWP refrigerants by, for instance, replacing refrigerating machines.
	Technology	<div>Investment in eco-friendly and low-carbon new technology/products to meet customers' needs & Promotion of productivity</div> <div>· Increased R&D and investment costs</div> <div>· Increase in revenue by developing new products and promoting productivity</div>	We have increased R&D professionals and investments, and we strive to secure technology through active alliances and cooperation with global partners, while expanding our business to waste resources upcycling and eco-friendly materials.
	Reputation	<div>Negative stakeholder feedback and reputation changes in response to climate change</div> <div>· Negative reputation affecting corporate values and sales, due to passive response to climate change or insufficient disclosure of information</div>	In addition to the publication of the Sustainability Report, we transparently disclose our response strategies related to climate change through CDP response and TCFD information disclosure. We plan to publish a Net Zero Report at the end of 2022 to proactively communicate with customers and investors.
Physical Risk	Short-term environmental changes such as natural disasters	<div>· Production delay and facility damage due to increased intensity and frequency of extreme weather events such as typhoons, floods, and wildfires</div> <div>· Decrease in revenue and fall in asset value, etc.</div>	The Business Continuity Plan (BCP) is established and internalized, and short-term environmental changes are checked by operating SHE inspection task force. Inspection results are reflected in the internal system, and corrective actions are monitored afterward. In addition, risks are distributed through means such as fire insurance.
	Environmental changes that may have long-term impacts on securing and accessing natural resources	<div>· Intensified water shortage due to climate change</div> <div>· Possibility of delay in production due to difficulty in securing water resources</div>	We are promoting reduction of water consumption and recycling of wastewater to minimize environmental impact as well as dependence on water sources. We are improving the intensity of water by striving to maximize wastewater recycling and use alternative water sources.

* Kigali Amendment: an international agreement to gradually reduce the consumption and production of hydrofluorocarbons (HFCs) with high global warming potential

Climate Change Scenario Analysis

SK specialty measures the financial impact of risks in terms of regulatory response by analyzing the financial risk impact of climate change. We predict changes in carbon price and carbon credit price that can act as variables when achieving Net Zero based on the 1.5°C scenario from the Network for Greening the Financial System (NGFS) and the 2050 carbon neutral scenario according to 2030 NDC. Based on this analysis, we have established carbon emission reduction targets and strategies to respond to the emissions trading system, and we are also working to minimize the financial risks involved in responding to climate change. We plan to refine our strategy to achieve climate-related goals by upgrading the analysis of not only the financial risks of regulatory responses such as the emission trading system but also financial impact of climate change on tangible and intangible assets.

NGFS Climate Change Scenario Framework



2050 Carbon Neutral Scenario

- Plan A**
Minimization of emissions through shutdown of thermal power generation
- Plan B**
Active use of removal technologies such as Carbon Capture Utilization and Storage (CCUS), while partially maintaining thermal power generation

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Risk Management

SK specialty identifies and shares issues related to climate change, including regulations and trends throughout the company. The ESG and environment-related departments identify issues and their impacts, prepare countermeasures, and spread them to related organizations, and, if necessary, report additional budget plans to establish and operate a preemptive climate change risk management system.

Risk Management Process

The process of identifying and evaluating climate change risks is done, similar to the process of the company-wide risk management. SK specialty classifies risks that may occur in the rapidly changing climate environment based on the risk classification system of the TCFD recommendation. This includes physical risks from short- and long-term climate change, and transition risks, including regulatory and low-carbon technology transitions. We are responding to climate change risks by assigning grades to these risk factors according to the negative or positive impact and likelihood criteria and establishing risk mitigation plans in accordance with these grades. We plan to upgrade the climate risk management system and reflect it in the investment review process, and continue to support the adjustment of climate change response strategies to achieve Net Zero.

01

Identify climate risk management targets

Identify regulations, domestic and international trends, and business impact related to climate change

02

Identify and analyze climate risks

Identify and prioritize respective climate risks

03

Respond to risks

Establish and implement risk mitigation plans based on response priorities

04

Report to BOD and the Management

Risk management and response status are reported to the BOD and the Management to support climate change-related decision-making and reflect in climate change response strategy

Metrics and Targets

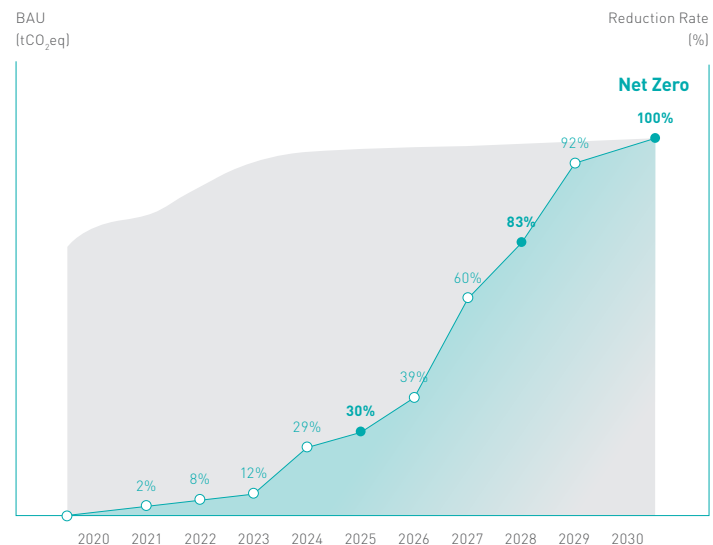
Carbon Emission Measurement and Reduction Target Setting

SK specialty calculates greenhouse gas/energy usage and intensity, Net Zero and RE100 implementation rates, internal carbon prices, etc. to set annual targets to shape the path to achieving the Net Zero goal. In the process of achieving the goal, SK specialty transparently discloses related metrics and targets and actively communicates with stakeholders.

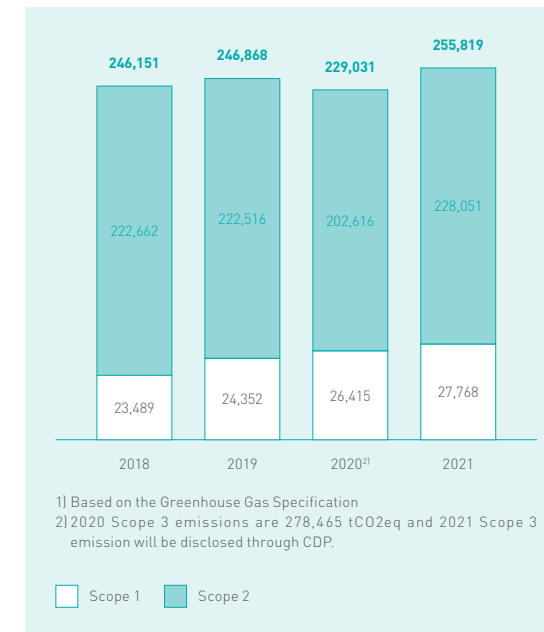
SK specialty recognizes the importance of accurately measuring carbon emissions more accurately in reaching its Net Zero goal. SK specialty has measured and managed internal greenhouse gases (Scope 1 & 2) emitted through direct energy consumption, as well as external greenhouse gases (Scope 3) emitted directly or indirectly from our product production since 2020, and we plan to update our 2021 Scope 3 through CDP this year.

SK specialty plans to reduce carbon emissions, including Scope 3, by 30% in 2025 and 83% in 2028 to achieve the Net Zero/RE100 in 2030. We continue to reduce and offset GHG emissions/energy consumption by expanding renewable energy usage, improving process efficiency, and securing NF3 reduction technology. As a result of these efforts, greenhouse gas and energy intensity has been steadily decreased since 2018. SK specialty will continue to conduct quarterly emission checks and disclose carbon emissions information transparently.

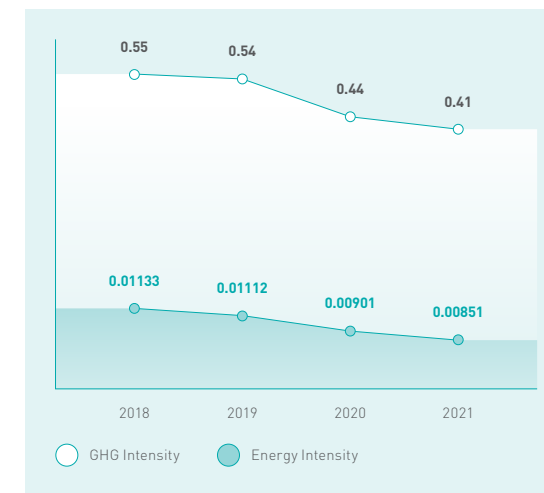
Net Zero Goal



Carbon Emissions¹⁾

(Unit: tCO₂eq)


Energy and GHG Intensity

(Unit: TJ/KRW million, tCO₂eq/KRW million)


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Enhancing Customer Value

[Link to SDGs](#)

Global Trend

It is essential to produce products that meet customers' needs since B2B (Business to Business) is the basic framework of semiconductor materials industry. Customers' demands on enhancing quality level of materials have been increasing with device scaling, product diversification, etc., and companies equipped with high level of competence in quality, safety and technology hold a dominant position in accordance with diversified customers' needs. For continuous growth, a company has to cope with rapidly changing business environment through business innovations that could meet and further enhance customers' value.

Opportunity

- Growth of IT industries based on new technologies such as 5G, AI, and autonomous driving
- Increased business opportunities for high-efficiency and green materials
- Improving production efficiency and product quality through the application of digital technology

Challenge

- High standard of promoted quality, eco-friendliness, and safety
- Speedy response to technology evolution by customers

Our Approach

SK specialty is creating value for customers by responding fast to changes in customer needs and timely resolving pain points of customers through new product development and differentiated services. We have our focus on R&D and business model innovation to provide products and services that could satisfy our customers and put priority on 'product quality' and 'customer safety' in all aspects such as product planning, production process, management, supply, etc. so that customers could use our products with confidence.

Major Achievements

R&D Investment in 2021
KRW 13.6 billion

Patent Applications in 2021
15 cases

Key Stakeholders



Customers



Suppliers

Direction of Customer Value Creation

Customers

Innovation of product competitiveness

Developing high-performance and eco-friendly materials, and stabilizing supply chain

Securing future growth engines

Enhancing R&D and intellectual property management capabilities

Product stewardship and customer safety

Strengthening quality management system, competitiveness of quality analysis, and safety management capabilities

Innovation of Product Competitiveness

SK specialty has a Research and Development Department to conduct R&D activities in each area. To proactively cope with changes in the environment of our major business areas, we are concentrating our capabilities on material development, while developing green materials and building capacities for new business items to diversify our business portfolio.

3 Strategies for Innovation of Product Competitiveness



Development of High-performance Materials

- Development of next generation material to respond to advancing IT industry



Development of Eco-friendly Materials

- Development of environment-friendly materials/technology
- Development of environment-friendly refrigerant



Stabilization of Supply Chain

- Development of globally monopolized or strategic materials

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Development of High-performance Materials

As the IT industry grows on the strength of new technologies such as 5G, AI, and autonomous driving, applications of semiconductors and displays are expanding. As a result, the materials required for semiconductor and display production are diversifying, and the level of performance required is getting higher. SK specialty is committed to responding proactively to these changes in downstream industries and strengthening the performance of material products to meet rapidly changing needs of its customers. We focus on enhancing product performance and maximizing the success of R&D by enhancing simulation-based virtual design/test capabilities.

Development and Use of Eco-friendly Products

Customers seek for eco-friendly materials that can contribute to reducing the environmental impact of products, and the eco-friendly material market is growing. As actively securing eco-friendly material technology is a key factor for sustainable growth, SK specialty is focusing on developing eco-friendly materials as a major direction for research and development. In particular, we are focusing on the development of low GWP* cleaning gases while striving to upcycle waste resources and secure eco-friendly raw materials to respond to customer needs for greener manufacturing and customers' growing needs with the context of refinements and high performance of semiconductor, display and battery process. We will expand our eco-friendly material portfolio in collaboration with companies and institutions that have world-class eco-friendly technologies. To illustrate, we are working with the Korea Research Institute of Chemical Technology and the National NanoFab Center to develop alternative materials for NF3, and planning to further reduce the environmental impact of our products.

* GWP: Global Warming Potential

Stabilization of Core Material Supply Chain

SK specialty is pushing for the development of globally monopolized materials and seeking to secure new markets. We are securing new markets and contributing to stabilizing the supply chains of our customers. In July 2019, we began development of Perfluoro Tripropyl Mine (PFTPA) for semiconductors, with a view to developing new, high value-added materials and securing source technologies to help stabilize the downstream industry. PFTPA, which is used as a heating medium for chillers to control temperature of semiconductor and display equipment, has a potential to evolve as expensive low-GWP products, fire extinguisher raw materials, and insulating gas. Demand for PFTPA is expected to increase steadily in Korea. In 2021, we completed the development of PFTPA manufacturing technology through a joint research project with the Korea Research Institute of Chemical Technology and passed the chiller supplier performance evaluation using our manufacturing samples. We are currently

reviewing PETPA mass production and various commercialization directions to stabilize domestic downstream industries. We plan to conduct research on manufacturing technology for additional low-GWP fluorine compound products.

Securing Future Growth Engines

Enhancing R&D Capability

SK specialty is expanding its research infrastructure and actively hiring specialist personnel by enlarging its investment in strengthening the R&D capabilities of employees. In addition, while enhancing our own R&D capabilities, we strive to build a material management database that can immediately present the physical properties that customers want through material ecosystem innovation to dramatically reduce the material development cost and period, often caused by diversification of customer needs and shortened product life. By 2023, we plan to increase the size of our R&D manpower to approximately 2.5 times that of 2020 and more than double the R&D investment cost. A total of 4 joint research projects are on the process with customers, suppliers, and research institutes, and we will continue to develop core technology for future growth engines.

2021 R&D Investments
KRW 13.6 billion2021 R&D Cost Ratio to Sales
2.18%

R&D Capability Enhancement Programs in 2021

Classification	Program	Description
Seminar	Deposition/Etching Material Seminar	· Atomic Layer Etching Technology and Plasma Monitoring · Area Selective Atomic Layer Deposition toward Complementary Bottom-up Patterning · Introduction of Major Dry Etching Methods and Development of Copper Thin film Dry Etching Process
	Seminar of External Experts	· Principle of Corrosion / Corrosion of Gas Container Materials
	Semiconductor Conference	· 2021 Semiconductor Electronic Materials Technology Conference · 2021 VLSI [Very Large Scale Integration] Symposium
Methodology and Process	Simulation Training	· Overall Response Mechanism of 3D V-NAND Thin Film · Simulation, Data, and Machine Learning
Education	Equipment Training	· Deposition Equipment Training · Analytical Equipment Training

R&D Manpower

(Unit: person)

Classification	2019	2020	2021
R&D personnel	28	31	12*

* It was calculated based on newly established company due to the split-off in December 2021. It was 33 persons based on the surviving company before the split-off.

Expansion of R&D Infrastructure

SK specialty established a basic R&D infrastructure by establishing Sejong Campus for high-tech materials to secure future growth preemptively. By expanding research infrastructure such as deposition equipment, synthetic facilities, and analysis equipment on Sejong campus, we are preparing to leap into the world's top material company by improving R&D capabilities and efficiency.

Improvement in Simulation Capabilities

SK specialty has established high-performance clusters and S/W dedicated to molecular simulation to strengthen its material development capabilities and is securing new professionals. Molecular simulation calculates the atomic/molecular properties of materials by computer to predict the physical/chemical properties and reaction mechanisms of new materials, suggesting the material design and manufacturing method to meet customer needs, and reduces the time and resources required to develop new materials. In 2022, based on the simulation capabilities, we applied new material structure design and reaction mechanism prediction to ongoing research and development, while establishing DT-based technology to generate physical data.

Intellectual Property Management

SK specialty recognizes the importance of strategic intellectual property management in the era of the Fourth Industrial Revolution, and we focus on securing and managing patents that will enable us to lead the future of the industry. As of the end of 2021, a total of 174 patents have been applied for, both in South Korea and abroad, including 99 patents in the last three years. In 2021, we applied for patents on the technology of semiconductor materials and process technologies to expand our patent portfolio based on the performance in enhancing environment-friendliness and competitiveness. In addition, we hold the 'Invention Day' event to encourage active invention activities and patent applications by employees. Employees who proposed their ideas that led to a patent application have been given a reward. A total of 14 new invention ideas were proposed at the event, which was held five times in 2021. We completed 10 applications in October, and 4 applications are scheduled to be filed.

2021 Patent Applications
15 casesPatent Applications (Cumulative) (As of 2021)
174 cases

* Based on the time of application filed

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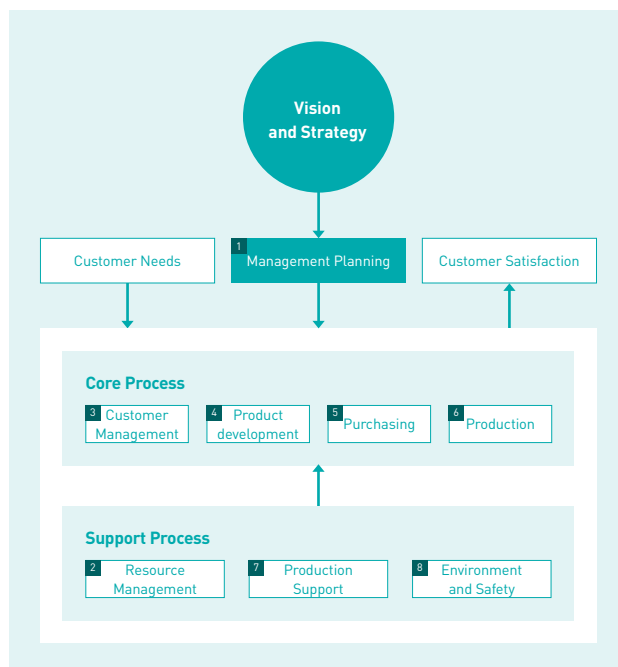
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Product Responsibility and Customer Safety

Enhancement of Quality Management Systems

SK specialty has established the quality policy to secure safety of its products/services in the process of R&D, customer sales, and use in accordance with internal safety standards and policies. In 2021, we set 'Pursuing Happiness of Customers' as the first principle of quality policy, and to strive beyond simply achieving quality, we are working proactively for zero safety accidents at customers' production sites through compliance with international environmental management standards and customized service for customers. In 2021, we acquired the Global Quality Management System (IATF 16949) certification for the first time in the Specialty Gas production industry to establish a quality management system that meets international standards. From 2022, we plan to upgrade the quality management system by strengthening quality culture/capacity, improving internal review, and establishing AI/Digital-based quality management system. We are committed to pursuing customer happiness by providing the best value to customers in terms of quality and safety.

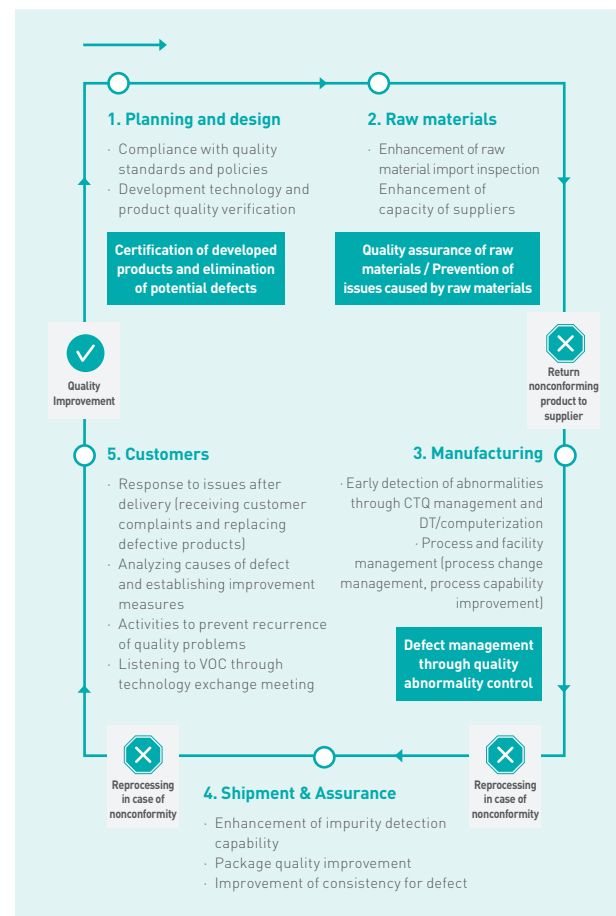
Quality Management Process



Quality Management System of Overall Process

SK specialty has achieved its quality goals by implementing a Quality Management System (QMS) for the overall process from R&D to product sales. We conduct inspections from R&D to final products, identify quality problems, and draw up provide improvement factors, which are later reflected in the related processes and product development. In addition, we continuously verify and manage validity and effectiveness of key items.

Quality Management System



Quality Analysis Competitiveness Enhancement

SK specialty puts a great effort on building technical capabilities to improve quality control that reaches customers' expectation, while managing that of the supply chain by providing analysis technologies and consulting services to suppliers.

We are also expanding the scope of our analysis technology and building a service collaboration network to share capabilities and infrastructure with suppliers. Through the network, we completed 7 analysis services requested by customers and suppliers in 2021.

Quality and Analysis Competitiveness Enhancement Direction and Action plan



• Quality Education

SK specialty conducts educational activities for its employees and suppliers to fundamentally improve the product quality. In 2021, we provided education programs to certify and maintain systems for 49 employees in quality-related departments, such as internal auditor training for quality management system, training on core techniques and tools of IATF 16949. Since 2022, we are distributing 'Quality Letters' to employees to enhance their competitiveness in quality management.

In addition, in order to strengthen the quality management capabilities of our suppliers, we conducted internal auditor trainings for quality management system and 'Core Tool' trainings for 10 companies in 2021 and distributed quality magazines to emphasize the importance of quality and product safety.

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Product Safety Management

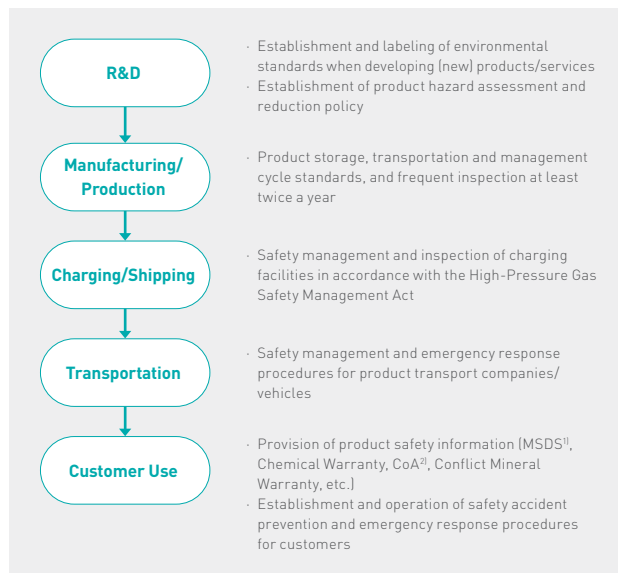
SK specialty evaluates and manages product safety in the entire process of production, delivery and use. We are guaranteed to review hazardous chemicals standard content specified in the chemical safety certification such as RoHS¹⁾, REACH²⁾, and GHS³⁾ and to manage hazardous chemicals below the standard level. We have established standards for product hazards and regulated substances at the product development phase, and implement a safety management process to enable manufacturing and sales after product hazard evaluation. We also implement safety management and inspection to ensure safety from manufacturing/production to transportation, while operating emergency response procedures so that we can strengthen accident response capabilities. In addition, we review prohibited/restricted substances such as hazardous chemicals when requested by a customer, and deliver the warranty and handling safety manual with ingredient specifications to the customer.

1) RoHS: Restriction of Hazardous Substances

2) REACH: Registration, Evaluation, Authorization and Restriction of Chemical

3) GHS: Globally Harmonized System of Classification and Labelling of Chemicals

Products and Service Safety Management



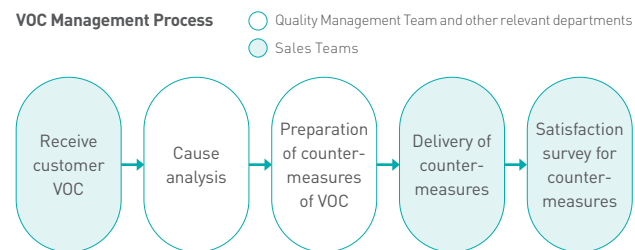
1) MSDS : Material Safety Data Sheet

2) CoA : Certificate of Analysis

Customer Communication

VOC Management and Response

SK specialty pursues customer satisfaction by accurately identifying and promptly responding to customer requirements for product quality and service through the Voice of Customer (VOC) management process. In particular, we strive to take fundamental measures against customer complaints by standardizing improvement measures based on customer feedback and applying them to products.



Expansion of Customer Touch Point

SK specialty has a wide range of customer touch points not only by responding to VOC, but also by conducting annual meetings with customers. We have promoted customer value by identifying various needs required by customers and industrial environments and reflecting them in business strategies.

• Technical Review and Exchange Meeting

In 2021, SK specialty held periodic customer exchange meetings to identify and resolve mutual pain points and discovered improvement tasks such as raw material supply chain management, supply and demand check, and certificates of authenticity to resolve the pain points identified.

• Joint Research and Development

SK specialty has discovered 4 cooperative tasks through joint R&D activities with customers. We have conducted research activities and material development based on the discovered tasks, and we are currently pursuing commercialization through process optimization. In 2022, we plan to strengthen mutual cooperation by conducting additional consultations for the product analysis as well as semiconductor material and process development, and create sustainable customer value through identifying additional tasks.

• Identifying Customer Needs and Creating Economic and Social Values

SK specialty is willing to consolidate its strategic partnership by providing the value that customers need, and ultimately contribute to creating economic and social values. We strive to meet customer needs by identifying them and performing tasks that reflect customer feedback based on our capabilities. Ultimately, as we continuously monitor the tasks we undertake and share their results with our customers, we are building a place for a deep, mutual exchange. SK specialty constantly tries to communicate with customers to further increase the economic and social values we create together.

Customer Satisfaction Survey

SK specialty conducts annual satisfaction surveys targeting customers (81% of SK specialty sales) who use or distribute our products. We conduct the survey by sending a questionnaire consisting of 10 items such as quality, communication, and improvement efforts to customers via e-mail, fax or mail. We conduct regular surveys once a year and special surveys on demand and collect reasons for dissatisfaction and improvements along with quantitative result for each item. In 2021, 32 customers participated, and we are maintaining the score of higher than 9 since 2020. Based on the results of the satisfaction survey, we will focus on the feedbacks for the items with relatively low scores and identify tasks to be improved.

Result of Customer Satisfaction Survey Result (Out of 10)

[Unit: point]

Classification	2019	2020	2021
Customer satisfaction survey result	9.3	9.4	9.1

* In 2021, the result of the satisfaction survey among existing customers was 9.5 points in average, increased by 0.1% points compared to 2020.

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Link to SDGs



Global Trend

The government is continuously strengthening regulations related to SHE* issues, and social attention on SHE accidents is growing. Global rating agencies and investors are also incorporating accident occurrence and mitigation in their assessments of corporate value. Moreover, approaches to work have changed due to COVID-19. Companies need to innovate their work environments to maximize the efficiency of their employees. This indicates the need for a company-wide SHE management system to create positive value for our employees.

* SHE Management: Safety/Health/Environment Management

Our Approach

SK specialty's workplace safety management is an essential issue directly related to the health and safety of our employees, suppliers, and local communities, as well as the surrounding environment. We have therefore introduced a SHE policy and management system led by the BOD, including an accident prevention and early response system by leveraging innovative safety technologies. In addition, we strive to foster a working environment that improves the safety, welfare, and happiness of our employees. To this end, and led the Corporate Culture Office under the BOD, we have reorganized our personnel management system and welfare system.

Opportunity

- Securing process safety throughout the value chain by strengthening and spreading safety expertise
- Preventing loss of manpower and property by upgrading the safety management system
- Increased work efficiency and employee happiness through work-life balance

Challenge

- Increased compliance risk due to stricter regulations, such as the Occupational Safety and Health Act and the Serious Accidents Punishment Act
- Expanding the scope of professional capabilities required to prevent safety accidents in accordance with various materials and advanced processes
- Increased need for a welfare system for employees due to changes in the working environment

Major Achievements

Safety Management Investment in 2021 **KRW 9.6 billion**

SHE Inspections in 2021 **18 times**

Implementation rate of employee happiness tasks in 2021 **100%**

Key Stakeholders**Employees****Local Communities****Suppliers**

Strategic Direction



* PSM: Process Safety Management

Safety and Health Management System

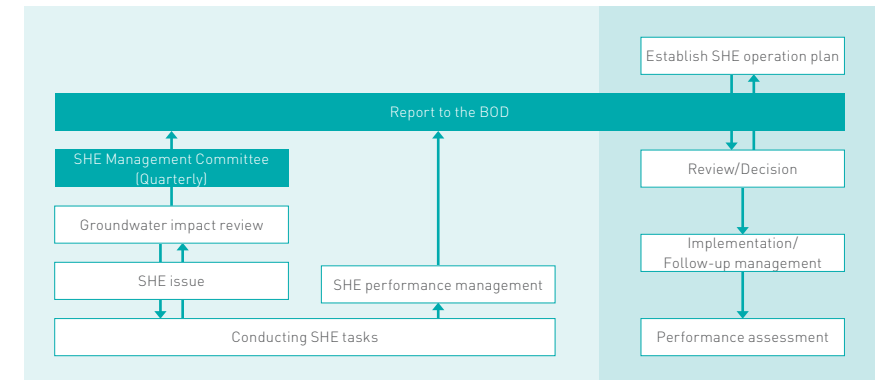
Safety and Health Management System

ISO 45001 certification

SK specialty's safety and health management system, centered on the BOD, identifies and manages key safety tasks, and reports to the CEO on a monthly basis. The BOD deliberates on and makes decisions pertaining to these tasks. In 2021, we established the SHE Management Department to act as a SHE Control Center for the entire company and our subsidiaries. It manages safety, health, and environmental performance and sets strategies accordingly. The Safety Management Team (within the Production Division's SHE Office) carries out SHE activities and SHE operational plans are established and implemented at worksites. The SHE committee is operated at the division/department/team/group level to enhance SHE leadership and execution.

In addition, SK specialty has acquired and maintained ISO 45001 certification, an international standard for safety and health management systems. Meetings of the SHE Management Committee are held once a quarter to prevent serious accidents and facilitate SHE-related deliberation mechanisms.

SHE Management Committee Operational Process



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Improvement of Safety and Health Management System

Advanced Safety and Health Management System	SK specialty has advanced our safety and health management system by establishing an organization in charge of safety and health under the direct supervision of the CEO. In addition, by relocating safety and health personnel, defining the scope of work, and establishing an integrated SHE system, we have improved work efficiency and expanded executive-led activities to strengthen safety and health management.
Operation of the Safety and Health Management System under the BOD	SK specialty has established a safety and health management system under the BOD, which prepares related budgets and personnel, to fulfill our obligations to ensure safety and health. The SHE body constantly monitors the status of implementation and establishes improvement plans according to the level of risk through a third-party review. The SHE Management Committee is held once a quarter to discuss key safety and health trends and issues. It reports key issues to the BOD for deliberation and decision-making.
Advanced SHE Audit System	SK specialty conducts SHE audits to check compliance with laws and regulations concerning safety and health. Audit results are reported to the BOD to take necessary action. To respond to compliance risks, we have also established a monitoring and feedback system for revised safety and health laws, which are reflected in our internal regulations and procedures. We provide training on revisions to safety and health laws and regulations.

Safety, Health and Environment (SHE) Policy

SK specialty’s policy on SHE, signed by our CEO, is disclosed via our website to demonstrate our commitment towards safety, health and the environment. Building a safe and healthy workplace is our top priority and the first principle of our SHE policy, which specifies that safety and health management is not only for employees but for all stakeholders, including communities, customers, and suppliers.

SHE Policy

SK specialty pursues the protection of humans and the environment as a top priority at every stage of our management activities. We aim to secure the trust of our employees and stakeholders, and we actively implement the following in our SHE management:

1. Safe and Healthy Workplaces

Our top priorities are safety, health, and the environment. We assess the impact of our business operations on safety, health, and the environment, and all employees strive to prevent workplace accidents from occurring.

2. Eco-friendly Value

We are actively responding to climate change by protecting environments in our workplaces and communities through eco-friendly designs, efficient use of resources, thorough management of chemicals, and proactively reducing our GHG emissions.

3. Compliance Management and Transparent Information Disclosure

We comply with all relevant SHE regulations, company rules, and stakeholder requirements, and we ensure stakeholder trust through transparent disclosure of information.

4. Full Participation of Employees

All employees recognize human and environmental protection as a top priority and participate in creating safer and healthier workplaces.

Safety and Health KPI Management

SK specialty has established mid- to long-term goals for our Lost-Time Injury Rate (LTIR) and Occupational Illness Frequency Rate (OIFR), with the aim of improving our performance in this respect. We have also expanded the scope of our company-wide safety and health management system to include the industrial safety indicators of our suppliers. Further, we operate a SHE-related compensation system to ensure that the safety and health performance of our CEO, executives, organizations and employees is linked to their annual performance assessment, which incorporates safety and health management as a top priority.

In 2021, our lost-time injuries frequency rate and the number of injuries per working hour remained low thanks to our company-wide endeavor to prevent accidents – such as upgrading our SHE management system, fostering a safety culture amongst our employees, and strengthening the prevention and review of severe accidents.



* Headquarter and suppliers

Industrial Safety Index

Classification	Unit	2019	2020	2021
Industrial accident	Cases	3	1	0
Injury rate ¹⁾	%	0.45	0.14	0
Fatalities	Person	0	0	0
Fatalities (Suppliers)	Person	0	0	0
Fatalities	%	0	0	0
Fatalities (Suppliers)	%	0	0	0
LTIR ²⁾ (Total)	Number of injuries per working hour	0.35	0.35	0.11
LTIR (Employees)	Number of injuries per working hour	0.31	0.16	0
LTIR (Suppliers)	Number of injuries per working hour	0.51	0.74	0.26
OIFR ³⁾	Number of occurrences per working hour	0	0	0

1) Injury ratio: (Number of workers injured in industrial accidents) / (Total number of workers) × 100
2) LTIR: Lost-Time Injury Rate, (Number of Lost-Time Injury) / (Total working hours) × 200,000
3) OIFR: Occupational Illness Frequency Rate, (Number of Occupational Illness) / (Total working hours) × 200,000

Creating a Safe Working Environment

Three Major Goals for Zero Accidents

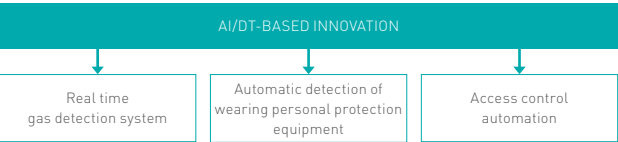
Zero Injuries	Zero Process Accident	Zero Non-compliance
· Enhancing the recognition of safety culture · Strengthening on-site SHE inspection management · Continuous management of the LTIR index*	· Process/chemical/ laboratory risk assessment · Improving the competency of employees on the safety and health management.	· Establishment and implementation of major legal compliance systems · Review of the enactment and revision of safety- and health-related laws
* Including headquarter and suppliers		

Prevention of On-Site Accidents

We have enhanced our standards of safety management throughout the production process, based on a DT*, solution to achieve the goal of zero injuries. We are also improving our health and safety management system through the virtuous cycle, ‘Plan-Do-Check-Action.’ Through this digital innovation, we aim to overcome the limitations of having to dispatch personnel for real-time monitoring and on-site supervision of outsourced work, where there are many risk factors and complex production processes.

* DT: Digital Transformation; process of using digital technologies to create new business processes

Framework for the Prevention of On-site Accidents



• Establishment of a Wireless Gas Detection System

In 2020, we developed a wireless detection system that can monitor gas concentrations in real time. This enables us to prevent suffocation and HF contact incidents caused by hazardous gas leaks in enclosed spaces. Oxygen concentrations, HF leakages in enclosed spaces, and other situational data are delivered via transmitter, in real time, to control rooms and our integrated disaster prevention room when harmful gases are detected. This system further strengthens our gas leak prevention system and enables us to respond quickly to accidents.

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• Advancing the AI and Video-based Safety Monitoring System

SK specialty has established a system that uses AI models to automatically detect workers without a proper PPE (personal protection equipment), with a view to preventing high-risk processes and injury risks in the workplace. We monitor workers that are not wearing protective equipments, such as safety helmets and chemical-resistant clothing in real time. When such persons are identified, on-site alarm broadcasts are transmitted from the control room and the safety control center so that appropriate measures can be taken. The automatic AI detection system has been installed in 34 CCTVs across our plant and more will gradually be installed.

To prevent accidents caused by driving in the plant, we have also established a VSDS (Vehicle Speed Detection System) that automatically detects vehicular speed and uses CCTV information to determine whether they are speeding. If a bicycle is confirmed to have exceeded the speed limit, a speeding notification is transmitted on the front display and the details are sent to the relevant department, recorded, and managed. We proactively control and manage potential safety accidents by preventing bicycles from speeding in dangerous places, such as slopes.

• IoT-based Access Control System

Due to the nature of the process, SK specialty handles a variety of chemical substances. Workers must wear protective equipment and be aware of the safety information for all substances they handle. In 2020, we set up an IoT-based process access control system to monitor in real time and respond quickly to any safety accidents.

The system includes web-based access control software with a database of work permits and dangerous areas. Workers must have identification tags with a signal generating function, attach separate tags to chemical-resistant clothing, and install AP* in the plant to track their location and whether they are wearing chemical resistant clothing. When unauthorized workers, such as those who failed to complete process safety training, approach the process area, or when a worker who is not wearing chemical-resistant clothing approaches the process area, relevant information is sent to the manager in the control room to take immediate action.

The ID tag is equipped with an emergency call request function so that the worker's information and location can be immediately transmitted to the control room and integrated disaster prevention center. This enables a rapid response in the event of an emergency. In 2021, a standardized model was established based on the performance of the access control system in process areas. Moreover, in 2022, we gradually expanded the scope of application of this system.

* AP: Access Point, a device that receives tag signals

Strengthening Health and Safety Capability



• Improving Standards of Safety and Health at Suppliers

SK specialty monitors safety and environmental management to help prevent accidents at our suppliers. We implement penalty and award system accordingly. Our Safety Management Team, within the SHE Office, conducts a safety environment management assessment for all suppliers involved in our construction projects, including newly registered companies. In accordance with our penalty and award guidelines, suppliers classified as 'caution' or 'warning' are required to submit plans for improvement. We monitor implementation of safety environment management plans for suppliers involved in projects with construction costs exceeding KRW 20 million at our Yeongju Plant. In 2021, 39 safety and environment management plans were evaluated for 11 suppliers, and rewards were provided to three suppliers with excellent evaluation scores.

In addition, we provide SHE consulting for suppliers classified as 'high risk' according to the results of our supplier ESG evaluation. In 2021, we provided safety and health management solutions to two suppliers to help improve their level of SHE management.

Further, to support the health and safety management systems of our suppliers, we evaluated safety and health risks for six suppliers and identified tasks for improvement. Through this process, they were able to acquire ISO 45001 certification. In 2022, we plan to provide follow-up and support on the renewal for the six suppliers who have been certified to ISO 45001.

• Developing Ability to Cope with Accidents

SK specialty conducts emergency response and fire drills to systematically respond to safety and environmental accidents and emergency situations. Every six months, we conduct emergency response training on leakages, power outages, fires, and chemical contact using scenarios at our Yeongju plant and suppliers. In addition, we provide theoretical and practical training on how to respond to fires (three times a year), and basic firefighting training (once a year) for office and technical workers.

In 2021, to strengthen our emergency response capabilities, our disaster prevention centers conducted emergency response drills and unannounced drills under the supervision of the SHE Office. This aimed to facilitate prompt responses to emergency situations. In 2022, we will further strengthen our ability to cope with accidents by standardizing scenarios for a more systematic response.

• Culture of Safety Management

SK specialty strives to raise awareness of safety and foster a safety culture amongst all our employees. We added the 'SHE Management' tab on our company website to expand our safety communication platform, share cases of accident cases at other companies, and raise awareness of occupational safety. Opinions relating to safety are collected through our 'SHE Box,' and we design customized training courses on safety based on these suggestions.

In 2021, regular SHE training was provided, for two hours every month, for employees of 16 departments that have a close relationship with safety management - including organizations under the SHE Office and Production Division. To enhance expertise in safety management, 16 hours of regular training for safety supervisors (130 people, as of 2021) was conducted during the year. Moreover, 23 workers participated in the safety coaching instructor qualification course that was newly implemented in 2020, with each completing 18 hours of training over the year. Further, in 2020, we introduced a 'Safety Talk' system that requires employees to discuss safety before any meetings begin. In 2021, we facilitated 386 Safety Talks by SHE committees at a division, department, team, and group level. We are thus raising awareness of safety and nurturing a culture where that pursues safety as a top priority.

Moving forward, we will continue to promote BBS (Behavior Based Safety), risk prediction, and firefighting contests so that our safety culture is not limited to the workplace, but instead an integral part of the daily lives of our employees.

2021 performance

6 suppliers newly acquired ISO 45001

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Making Healthy Workplace

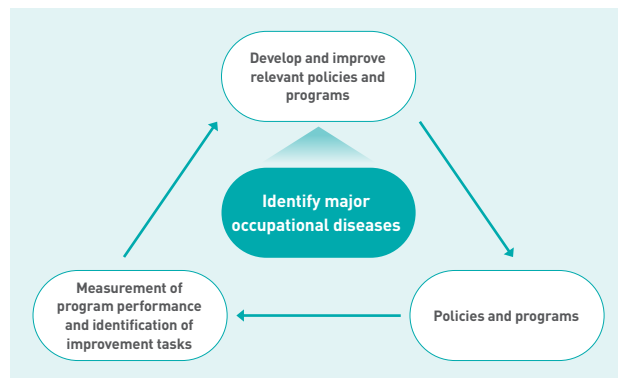
Healthcare Program for Employees

SK specialty identifies health risks that are highly likely to occur by monitoring the working environment, and we develop and implement health programs accordingly. To prevent and manage occupational diseases, such as hearing loss and pneumoconiosis*, which are mainly caused by the characteristics of our industry, we constantly monitor the working environment and conduct periodic checks of ventilation systems. We also regularly monitor the health of our employees, including contract or dispatched employees, to prevent major occupational diseases (musculoskeletal diseases, cerebrovascular disease and heart disease) that can be caused by personal lifestyle or personal factors, as well as exposure to harmful factors at work. Further, we regularly monitor and conduct risk assessments for diseases that may be caused by repetitive work, including brain, cardiovascular, and musculoskeletal-related diseases. Once an occupational disease is diagnosed, we provide counseling and treatment for the employees with medical findings.

In addition, we conduct a body composition improvement program to reward participants with reduction rates of the body fat. In 2021, we recognized 23 employees in the first half of the year, and 10 employees in the second half, as 'employees with outstanding health' and provided them rewards of up to KRW 400,000. We will continue to strengthen our follow-up management, including for probable occupational disease, as well as expanding the number of employees eligible for health check-up support by reducing the age limit from employees over 36 to those over 30. Through these efforts, in 2022, we will strive to reduce the proportion of workers with possible occupational disease needing special medical examinations by 2% compared to 2021.

* Pneumoconiosis: Lung disease caused by breathing in certain kinds of dust particles that can damage the lungs

Health Risk Management Process



Supplier Health Management

SK specialty strives to protect the health of not only our own employees, but also our suppliers' employees. We support our suppliers for a decent working environment and in monitoring their working environment to prevent occupational diseases. Further, we provide health checkups (general/special) to our suppliers following the expansion of our health promotion program in 2021. In 2022, we expect to provide CPR training and non-smoking clinic programs for suppliers' employees, as well as conducting improvement programs of cardiovascular disease and lifestyle, in partnership with Yeongju.

Healthcare Program for Employees

Work Environment	Working Environment Measurement	· Status of chemical use of each plant and MSDS (Material Safety Data Sheet) management · Regular measurement of working environment (once every six months)
	Ventilation System Check	· Local exhaust ventilation check (once a year)
Prevention of Diseases	Prevention of Hearing Loss	· Provision of diverse hearing protection devices · Training on preventing noise-related hearing loss
	Prevention of Musculoskeletal Diseases	· Regular investigation of musculoskeletal harmful factors (once every 3 years) · Investigation of symptoms of musculoskeletal disorders (once a year) · Classification of persons subject to monitoring and management, and operation of prevention programs
	Prevention of Brain and Cardiovascular Diseases	· Training on prevention and management of brain and cardiovascular diseases (once a year) · Cardiopulmonary resuscitation training and on-site installation of AED · Management program for personal with medical findings or needing medical observation
Medical Examination	Mandatory Health Checkups	· General/special medical examination (once a year) · Health check-up before and after assignment (if applicable) · Job stress test · Evaluation of risk of brain and cardiovascular diseases · Follow-up examinations · Operation of screening program
	Welfare and Benefits	· Follow-up examinations for early prevention of occupational diseases (for HF and NF3) · General check-up for employees' spouses (once a year, and biennial check for spouses aged 36 or over)
Health Promotion	Health Promotion Office	· Staffed by medical professionals (nurses) · Physical therapy room and exercise instruction room · First aid/medicine/on-site first aid kit · Basic examinations and health consultations
	Health Promotion Program	· Non-smoking clinic · Walking 10,000 steps per day · Flu vaccination support for employees and their families

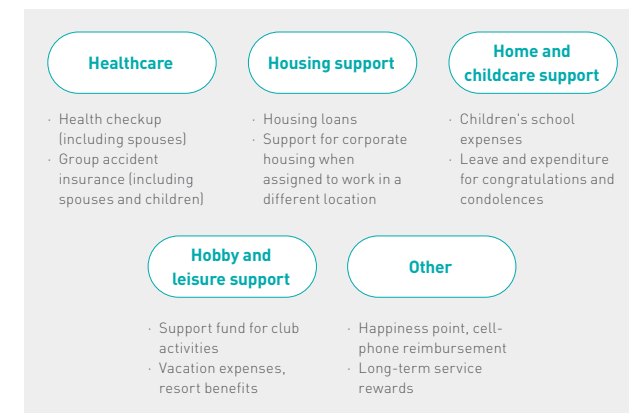
Maximizing Happiness of Employees

Welfare of Employees

We operate diverse welfare and benefit programs to support the health and happiness of our employees. Employees' opinions on these systems are gathered through various channels. In 2021, through our introduction of the influencer* system, we have managed to implement several improvements to our provision of welfare and benefits. The influencer system aims to select influencers from amongst our employees, enabling them to participate in a practical discussion process that reflects employees' opinions in the planning and improvement of our key systems and programs. A significant improvement in WLB (Work-Life Balance) was achieved with the introduction of the bi-weekly work holiday system in 2021. Further, we have improved our benefits system by adding extra provisions for family events, and by expanding the scope of health checkups to employees' spouses. We will continue to further upgrade our provision of welfare and benefits by reflecting the opinions of our employees.

* Influencer: an employee that leads changes within an organization; derived from the original meaning of a person who has a great influence on social media.

Key Welfare and Benefits



Welfare and Benefit Expenses

(Unit: KRW million)

Classification	2019	2020	2021*
Expenses	11,913	12,449	14,333

* Sum of the welfare and benefit expenses of the existing corporation from January to November 2021 (KRW 13,810 million), and of the new corporation in December 2021 (KRW 523 million)

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Work and Life Balance

SK specialty has established a policy to promote work-life balance under the motto of 'employee happiness is the driving force of tomorrow.' The policy aims to realize a positive work-life balance for our employees, focusing on their growth, work and leisure, and mutual respect. To this end, we operate and monitor diverse systems and programs such as our flexible work system, bi-weekly holiday system, flexible workplace and time, and a long leave of absence from work.

Selective Working Hours <ul style="list-style-type: none"> Employees adjust working hours outside of standard working hours. 	Flexible Working Hours System <ul style="list-style-type: none"> Introducing different types of work, outside of usual working hours and tasks, that suit the characteristics of employees 	Overtime Monitoring System <ul style="list-style-type: none"> Managing monthly working hours via the team leader if overtime occurs
4 Groups & 2 Shifts System <ul style="list-style-type: none"> Guaranteeing maximum workers' right to rest by reducing the number of working days per year compared to the 4 groups & 3 shifts system 	Biweekly Holiday System on Fridays <ul style="list-style-type: none"> Day off on the 2nd and 4th Friday of each month 	Long Leave of Absence from Work <ul style="list-style-type: none"> Offering summer vacation (5 days) Year-end holidays recommended Long holidays recommended Encouraging use of at least 50% of annual leave
Manager Training <ul style="list-style-type: none"> For departments with excessive overtime Culture of evaluations based on performance, not working hours 	Work Automation <ul style="list-style-type: none"> Data-based personnel management (recruitment, promotion, attendance management, etc.) Business standardization 	
Expansion of Maternity Leave (up to 10 days)	Reduction of Working Hours During Childcare Period (up to 35 hours a week)	

Use of Parental Leave

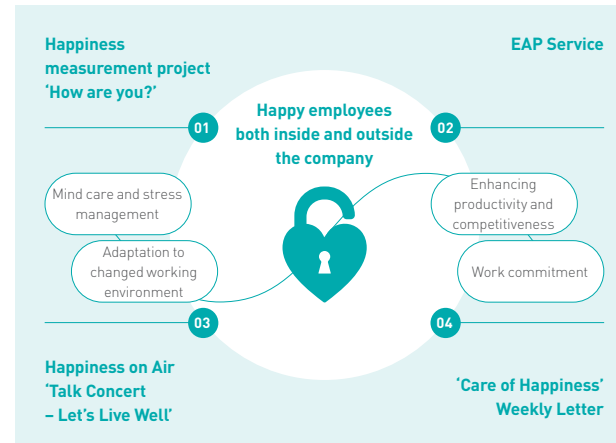
Classification		Unit	2019	2020	2021 ²⁾
Employees who took parental leave	Male	Person	6	4	6
	Female	Person	2	8	4
Employees who returned from parental leave	Male	Person	3	6	4
	Female	Person	3	3	2
Return rate ¹⁾	Male	%	100	100	100
	Female	%	100	100	100

1) (Number of returning employees from parental leave in reporting year) / [Expected number of returning employees from parental leave in reporting year] X 100

2) 2021 data is calculated only for the number of people after division

Customized Happiness Design

Designing Happiness for Employees

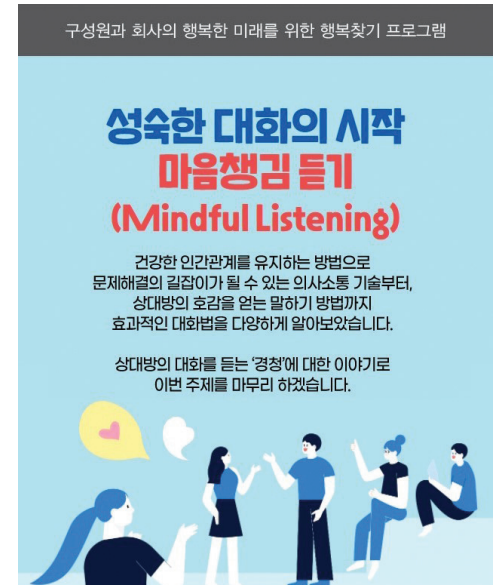


SK specialty recognizes that in addition to physical health, mental health is also important for an environment where employees can work happily. In 2021, we conducted the happiness measurement project 'How are you?' and measured the happiness of our employees frequently throughout the year using a mobile platform, and provided individualized reports. We provided an opportunity for employees to better understand the factors that affect their happiness and gain insights for designing a happy life.

Additionally, we carry out various happiness programs, including EAP* services, to help employees to manage any stress they may experience inside and outside the company and to take care of their own mental health. The EAP service is a customized emotional management program for employees' mental health, providing comprehensive assistance in improving emotional stability and work productivity. We also publish the weekly letter of 'Care of Happiness' to help employees solve problems in their personal lives. Further, we hold the 'Happiness On Air Talk Concert - Let's Live Well,' which is tailored to the mental health needs of the MZ generation, who make up 75% of our employees.

* EAP: Employee Assistance Program; an employee support program that provides a comprehensive service by experts, helping employees solve problems and perform their duties efficiently in the face of stressful situations at work

'Care of Happiness'
Weekly Letter



Professional
Consulting
Services



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Management of a Sustainable Supply Chain

[Link to SDGs](#)

Global Trend

Improving ESG within the supply chain by preventing work-related accidents, improving environmental performance, and responsible procurement ensures that a company's products and services are of a high quality and competitive. Therefore, the relationship between a contractor and its sub-contractors should go further than a mere contract – it should be a solid partnership that creates a sustainable industrial ecosystem. In particular, the 'EU Supply Chain Due Diligence Act' proposed by the European Union (EU) Parliament in 2021 will take effect at the end of 2022, which indicates that strengthening responsibility for ESG supply chain management has become an unavoidable global trend. We intend to establish a management system to manage ESG issues that may occur in the supply chain and assist suppliers to enhance their financial and non-financial capabilities.

Our Approach

SK specialty understands that managing ESG risks and raising the ESG levels of suppliers represent true mutual growth in a business environment in which the importance of the ESG area has been emphasized. In 2021, based on the management system that we established in 2020, we focused on activities to improve the ESG levels of our suppliers, including conducting the very first ESG risk assessment. In 2022, we plan to expand the targets of ESG assessments, strengthen its linkage with regular evaluations, and upgrade our programs to support mutual growth.

Opportunity

- Improving supply chain safety through support programs to stabilize the management of suppliers
- Building sustainable partnerships by resolving suppliers' ESG-related risks and enhancing their ESG capabilities

Challenge

- Expanded legal and social responsibility for supplier-related ESG risks
- Insufficient supply chain ESG management level and capabilities

Major Achievements

Number of suppliers subject to ESG risk assessment in 2021
25 suppliers

Amount of investment in mutual growth programs in 2021
KRW 384 million

Number of tier 1 suppliers benefiting from mutual growth programs in 2021
20 suppliers

* 17 in Korea, 3 overseas

Key Stakeholders**Suppliers**

Ensuring a Sustainable Supply Chain

Management of a Sustainable Supply Chain system

- Assessment of suppliers
- Supplier Code of Conduct
- ESG risk assessment and ESG enhancement activities for suppliers

Responsible procurement

- Fair procurement of raw and subsidiary materials
- Expansion of social purchasing

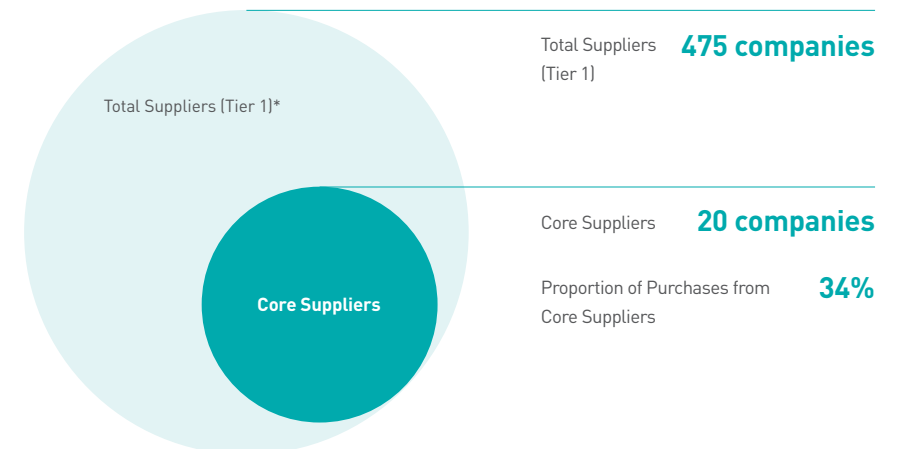
Shared growth with suppliers

- Operation of Mutual Growth Council
- Operation of mutual growth programs
- Enhancement of environmental management capabilities and incentives (GHG, water resources, waste, etc.)

Promoting Supply Chain Management

SK specialty's suppliers provide essential goods, construction, distribution, and other contracts to the company. They supply raw and subsidiary materials to production plants, as well as providing services – such as manufacturing equipment – necessary for the work process. Some reside in the Yeongju plant as they provide regular services, such as facility maintenance and repair. As of 2021, 475 suppliers that are above a certain size, or that supply key products and services, are classified as Tier 1 suppliers. Within this group, companies with which we have a strategic relationship are classified as core suppliers.

Suppliers in 2021



* As of 2021, suppliers with trade results are listed, and SK Specialty's self-defined Tier 1 partners are 67 companies

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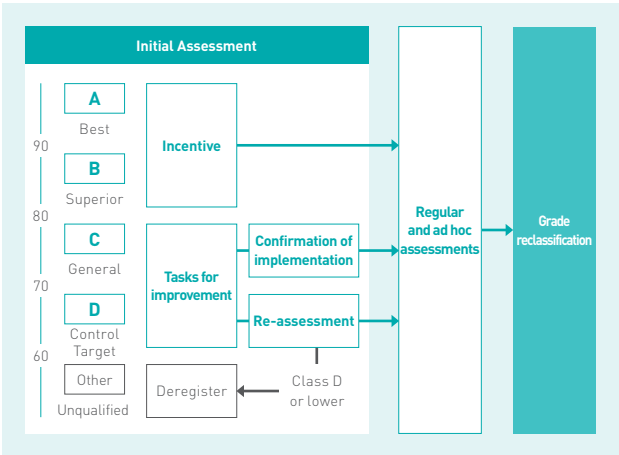
Supply Chain Management

SK specialty has an integrated purchase management system (SK withus) to perform supply chain management (SCM) such as registration and management of new suppliers, sharing of supplier information, ethical practice, and evaluation and management of suppliers.

New Registration and Re-evaluation of Suppliers

The assessment of suppliers is divided into the areas of management, technology, quality, environment, and safety. SK specialty conducts an initial assessment prior to official registration and regular post evaluation once every two years. In particular, the environmental and safety areas consist of 46 checklists related to system management, education and training, health promotion, emergency preparedness and response, and on-site operational management to evaluate the level of implementation. Only companies with 70 points or higher (grade C) in the initial assessment are considered qualified and therefore registered as a supplier. A company that has obtained higher than 60 points and lower than 70 points (grade D) is reassessed after implementing improvement measures and may be registered as a supplier again after scoring 70 points or higher. The assessment is conducted through on-site due diligence and can be replaced by a written assessment only if a supplier obtains a score of 90 points or higher (grade A). The best suppliers are provided with incentives, which include granting priority negotiation rights. If existing suppliers score lower than 60 points in annual assessment, they will be disqualified and no longer able to supply products to the company.

Comprehensive Assessment Process

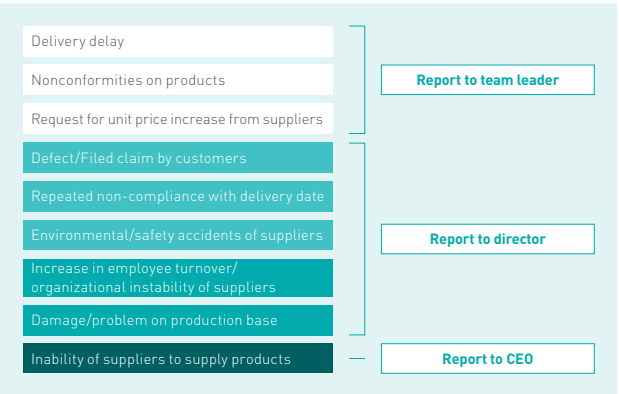


Assessment Items	Management
	Business plan, customer satisfaction survey, employee training, etc.
Finance	Productivity
Financial safety, profitability, etc.	Work standards, facility inspection system, etc.
Purchasing & Materials	Technology
Management standards of partners, material storage and transportation, etc.	R&D activities, cost reduction, etc.
Quality	ESG Risk
Quality management certification, quality management and assurance system, etc.	Safety and health, environmental protection, etc.

Monitoring the Performance of Raw and Subsidiary Materials Suppliers

SK specialty has established a process for identifying problems through continuous performance monitoring for new and existing suppliers of raw and subsidiary materials. If problems are identified, they are reported to the employees in charge according to the risk posed by each problem. SK specialty's purchasing manager tracks the performance of suppliers in various areas, such as delivery compliance rate, quality issues, and production suspension due to quality or delivery problems, and reports the monitoring and evaluation results to a team leader or executive management. Material issues such as inability to supply are reported to the CEO.

Escalation Process for Supplier's Issues



Supply Chain Diversification

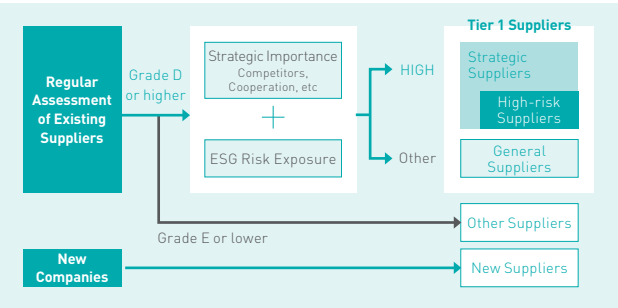
By proactively managing supply chain risks arising from supply and demand disruptions, SK specialty seeks to diversify the supply chain to ensure our competitiveness in procurement. We are strengthening our strategic partnerships with suppliers by signing new contracts, ensuring stable supplies through diversification of shipping ports, and exploring potential suppliers in various countries in case of supply chain disruptions due to unpredictable geopolitical risks – such as trade disputes and infectious disease outbreaks. Further, through analysis of the costs and environmental impact linked to our reduced use of scarce resources, we are striving to establish a structure for supply chain diversification.

ESG Risk Management of Suppliers

Supplier ESG Risk Management System

SK specialty has established and operated an ESG risk assessment system that evaluates and manages not only environment and safety but the entire spectrum of ESG – including human rights, labor, and ethical management. In 2021, we developed a system reflecting strategic importance and ESG factors to focus on managing suppliers with higher ESG risk. Tier 1 suppliers are defined as existing suppliers that have passed particular criteria of purchase amount and regular evaluation result. Suppliers that are assigned as a 'high' grade and again classified as strategic suppliers based on our assessment of their strategic importance and ESG risk exposure. ESG risk assessments for such suppliers are conducted based on the Supplier Code of Conduct, and the suppliers with 'high risk' depending on the assessment results are selected and managed accordingly. Through this, we are managing the improvement rate of our suppliers' overall ESG level and improving their standard of ESG risk management.

Classification Criteria of Suppliers based on ESG



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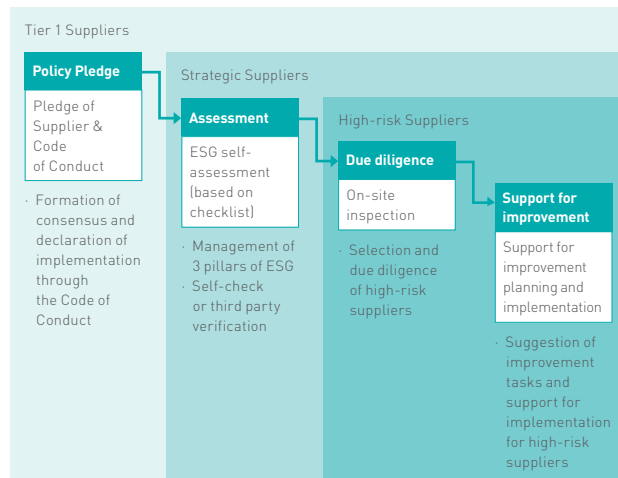
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ESG Risk Management Process for Suppliers



Supplier Code of Conduct

SK specialty established a Supplier Code of Conduct in December 2020 to create a sustainable industrial ecosystem. The Code of Conduct is based on the Code of Conduct Version 7.0 of the Responsible Business Alliance (RBA), and 17 suppliers* among our Tier 1 suppliers have agreed to comply with the code. In 2022, we plan to expand the number of suppliers who have consented to the code of conduct, while evaluating their compliance with the code and inducing improvement.

* Domestic members of the Mutual Growth Council (strategic suppliers)

Suppliers Code of Conduct Items

Safety and Health

Personal protection equipment, safety education, prevention of exposure to harmful substances, health care, sanitary inspection, etc.

Environment Protection

Management of pollutant emissions, minimization of resource use, management of energy use and GHG emissions, environmental compliance, etc.

Human Rights and Labor

Preventing forced labor and child labor, guaranteeing freedom of association, management of working hours and wages, protection of human rights, elimination of discrimination, etc.

Ethics Management

Anti-corruption, fair trade, internal reporting system, prohibition of use of conflict minerals, etc.

Management System

Willingness to comply with the Code of Conduct, monitoring system, efforts to improve, etc.

Supplier ESG Risk Assessment

Once a year, SK specialty conducts ESG risk assessments for strategic suppliers in three pillars of E/S/G. Suppliers who receive assessment grades below a specific level are classified as high-risk suppliers and required to take a due diligence. In 2021, we carried out a pilot assessment for 25 suppliers and conducted a due diligence for two among them, evaluating their specific level of ESG by each area. We collected the opinions of our suppliers on their ESG risk assessment activities and plan to reflect these in the 2022 assessment. From the second half of 2022, we will conduct the ESG risk assessment in earnest and select high-risk suppliers, requiring them to respond to the third-party due diligence. Moreover, we will request high-risk suppliers who have received an ESG risk assessment within the past year to submit improvement plans and conduct improvement and monitoring activities to make full use of the risk assessment results.

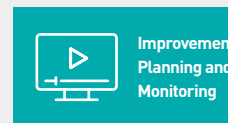
ESG Risk Assessment Process for Suppliers



- Conduct assessment based on the Supplier Code of Conduct
- Select suppliers with higher ESG risk
- Identify areas for intensive improvement by suppliers



- Environment/Safety/Health Consulting : Education and consulting by areas, such as supply chain management, and environmental management
- Customized support programs for suppliers



- Improvement plans, challenges, and goals for suppliers
- Improvement rate management based on assessments

Supplier ESG Improvement Activities

To improve ESG standards across the supply chain, SK specialty pursues shared growth with suppliers through providing support and improvement activities as a type of incentives, as opposed to giving penalty to suppliers for poor ESG performance. In 2021, we held four training sessions to disseminate key issues related to the business environment. In the first half of this year, the CEOs and working-level staff from 17* companies among

our core suppliers joined the training on basic concepts in ESG and supply chain ESG management; in the second half of the year, we ran seminars that dealt with carbon neutrality and greenhouse gases. In 2022, four additional sessions will be held for 22 of our strategic suppliers.

We also offer SHE consulting to disseminate ESG information and check compliance with basic safety and health laws, and facilitate improvement. For overseas suppliers, we have shared practical cases of advanced SHE management systems through our online SHE seminars. Beginning in 2022, based on the result of ESG risk assessments, we will provide customized support programs for each of our suppliers, tailored to the ESG standard of each of them, leveraging our ESG capabilities. Moreover, in 2022, we expect to select one of our suppliers for in-depth ECO consulting, which aims to improve its quantitative environmental performance. We plan to gradually expand the number of eligible suppliers for consulting based on this year's performance.

* Domestic members of the Mutual Growth Council (strategic suppliers)

Fair Procurement

[Go to SK specialty purchasing regulations](#)

Fair Procurement of Raw and Subsidiary Materials

SK specialty specifies fair procurement principles in our procurement regulations to prevent environmental and social problems that may occur in the supply chain during the procurement of raw and subsidiary materials, minimizing potential negative impacts. In order to protect the human rights and local environment of residents in conflict areas such as the Democratic Republic of the Congo, the use of conflict minerals is the principle. It is stated in the principle that suppliers shall be requested to pledge not to use conflict minerals by signing the Code of Conduct; otherwise the trade could be suspended if a supplier refuses to comply with the pledge.

Expansion of Social Procurement

To fulfill our social responsibility in the procurement process, we have established the social procurement principle in our procurement regulations. The principle consists of green purchasing, and the purchasing of products and services from social enterprises to contribute to the creation of social value. We have implemented a mandatory procurement system by designating a green purchasing manager and separately managing items that can be replaced with green goods. Through the green procurement policy, we have stipulated that priority should be given to green products when purchasing contract materials at the bidding stage. In addition, we encourage purchases of products that reduce operating costs by selecting suppliers that provide certified high-efficiency energy equipment, and we grant them additional points during the registration and bidding process.

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Supplier Mutual Growth

Fair Trade and Mutual Growth Agreement

SK specialty has signed a fair trade and mutual growth agreement with the suppliers to ensure autonomous and fair trade, and to enhance mutual competitiveness through support and cooperation for shared growth. The agreement stipulates compliance with fair trade laws, as well as guarantee of fair trade and support for mutual growth. In July 2021, we signed the agreement with 17 suppliers.

In November 2021, we facilitated a ceremony where five Tier 1 and Tier 2 suppliers signed the fair trade and mutual growth agreement, thus further spreading a culture of fair trade and shared growth. The agreement guaranteed fair trade between Tier 1 and Tier 2 suppliers, while allowing Tier 2 suppliers to benefit from the mutual growth support program of SK specialty. In 2022, we will sign mutual growth agreement with additional suppliers (a total of 22 suppliers), while also allowing more Tier 2 suppliers to receive support from the mutual growth support program.

Fair Trade and Mutual Growth Agreement Items

Compliance with fair trade laws	Guarantee of fair trade
Use of standard contracts	Support for mutual growth
Cooperation for mutual growth	Agreement period

Mutual Growth Program

The company operates mutual growth programs to improve the long-term competitiveness of our suppliers. We operate four sub-committees (management support, SHE, quality, and ECO) for the systematic operation of mutual growth programs by a total of 18 working-level departments. In 2021, we linked our mutual growth program with activities to mitigate supplier ESG risks. We particularly focused on programs to support suppliers' SHE and management activities and conducted SHE inspections for 17 suppliers. In addition, we developed 15 programs to be implemented in 2022, and established a detailed implementation system for these programs to provide customized support for suppliers with varied business types and size. In 2022, we plan to expand the scope of our suppliers participating in the programs and add advanced training courses to the existing programs.

Mutual Growth Programs in 2021

Sub-committees	Program Name	Description
Mutual Growth Management	Mutual growth council meeting	· Introduction of mutual growth programs and ESG training sessions (March) · Best supplier award and 2022 operational plan guide (November)
	ESG Workshop	· Intensive training for suppliers (July) · Guidelines on importance of and compliance with supply chain ESG management and the principles of supplier assessment
	ESG Risk Assessment	· Establishing ESG assessment system based on the Supplier Code of Conduct · Improving pilot assessment and system · Implementation of ESG risk evaluation and management of improvement rate based on assessment
	SK Group Program	Management competency enhancement programs such as CEO seminars and new employee training
	Fair Trade and Mutual growth Agreement	· Agreement signed between SK specialty and Tier 1 suppliers (June) · Agreement signed between Tier 1 suppliers and Tier 2 suppliers (October)
Business Management Support	Regular theme training	· Accounting education/ Understanding financial statements (basic, April), and withholding tax/VAT declaration (advanced, September) · Legal education/ Contract and management (basic, July), subcontracting law (advanced, November)
	ESG education	Risk management education in human rights and ethical management [discrimination, intellectual property, solicitation, etc.]
SHE	SHE Consulting	Mitigation of safety and health vulnerabilities for suppliers and establishment/verification of improvement plans based on SHE compliance risk check
	SHE Seminar	Training to promote advanced SHE systems for overseas suppliers
	Support for Resident Supplier	Support for health and safety management system (ISO 45001) certification, environmental management system (ISO 14001) certification, improvement of hazardous work and reduction of accident factors, inspection and improvement of safety risk factors, and evaluation of the safety and health performance of suppliers
Quality	Intensive Quality Control Training	Training on key quality tools and training of ISO internal auditors, supporting certification, and sharing trends and issues relating to quality
	Improvement of construction/ service capabilities	Distribution of quality manuals, work standards, quality transition standards, etc., quality expert training, training on work standards and quality standards
ECO	ESG Seminar	Introduction to domestic and global Net Zero trends and water management

Support for Suppliers

(Unit: KRW Million)

Classification	2019	2020	2021
Support for suppliers (technology, health and safety, etc.) ¹⁾	1,560.8 ²⁾	281.4	383.7

- 1) Benefit from transactions completed through shortened payment periods is included in data from the 2021 Sustainability Report but is excluded from calculations in this year's report, leading to differences in data
- 2) Support for suppliers was high in 2019 due to construction of infrastructure on suppliers' site, including offices, maintenance buildings, and expansion of waste storage facilities

Support for Supplier Certification

SK specialty supports suppliers' acquisition of environmental management system certifications (ISO 14001) and health & safety management system certifications (ISO 45001) through group training and individual coaching to strengthen their capabilities. We helped four suppliers acquire ISO 14001 certification and supported six suppliers to obtain ISO 45001 certification through reviewing safety and health management manuals and guidelines to evaluate their risks and derive improvement tasks. In 2022, we plan to conduct follow-up and renewal audits by continuously checking the operation of these systems for suppliers who have obtained the above certifications.

Closer Communication with Suppliers

In 2020, SK specialty set up the Mutual Growth Council to establish a process that reflects the needs of its suppliers within the mutual growth program and expand communication with these suppliers. Composed of 17 company members, the council is helping us to foster a system of communication across our value chain.

In March and November 2021, we held a meeting, respectively, with members of the council, with all 17 companies participated. We introduced the mutual growth program, including suppliers' opinions on the program, and awarded the top suppliers with the best participation. In addition, we held seminars related to ESG such as Net Zero and water reduction to share the concept of sustainable supply chain based on environmental performance.

We will continue to strive to understand the needs of our suppliers and build mutual understanding and consensus on ESG and sustainable management of supply chain through the council. Further, we will continue to select and award the best suppliers based on their environmental improvement and ESG performance.

Status of Opinion Collection and Processing - Mutual Growth Council in 2021

Number of cases accepted	Number of cases completed	Completion rate (%)
8	8	100

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ESG Factbook



The ESG Factbook encompasses SK specialty's activities and plans to fulfill its social responsibilities and create diverse values, in general areas that are not selected as key areas in the Materiality Assessment. It covers three areas: Environment, Social, and Governance. SK specialty will continue to pursue ESG management as the basic value of corporate management.

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Environment

Environmental Management

SK specialty has set its SHE management policy to 'Pursue a Green Corporate Culture' to become a sustainable company. We have established a systematic environmental management system through strengthening environmental management, environmental performance evaluation system, and wastewater recycling system.

[Link to SDGs](#)

Environmental Management Governance

Environmental Management System

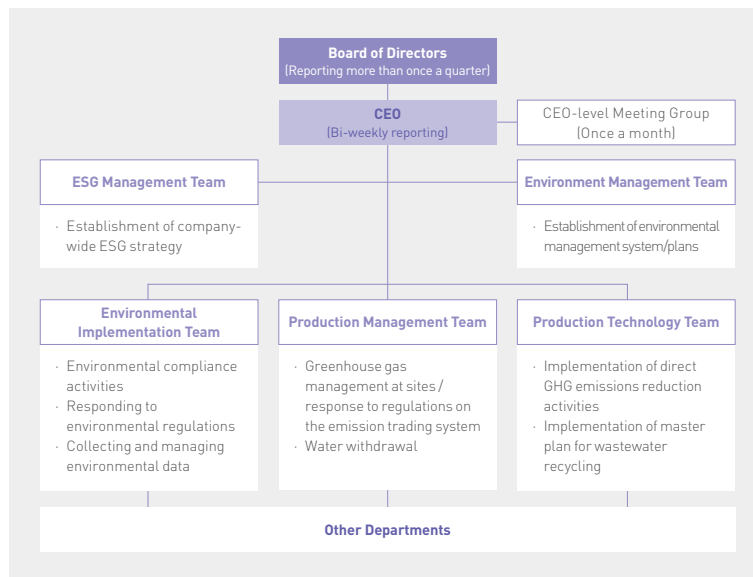
SK specialty established and declared the SHE policy* and set mid- to long-term goals to achieve 2030 Net Zero/RE100, 100% wastewater recycling, and 95% or higher waste recycling rate (ZWTL Gold) to build a global top-tier green company. Accordingly, SHE Management Department was established in January 2021 to promote eco-friendly corporate culture and environmental management, and in December, the Environmental Management Team and SHE Planning Team were separated to strengthen each of their expertise in implementing environmental strategies.

* See p.25

Environmental Management Decision Making System

In order to strengthen the role and responsibility of the BOD and CEO for major environmental management decisions, SK specialty operates a CEO-level meeting group once a month and reports major environmental management issues to the CEO and the board bi-weekly and at least once a quarter, respectively. In 2021, various environmental management issues such as the Net Zero implementation plan and the current status of waste and wastewater recycling rates were addressed. Furthermore, the ESG Management Team and the Environmental Management Team discover major environmental goals and tasks, while other departments, including the Environmental Implementation Team, the Production Management Team, and the Production Technology Team are working closely together to implement those tasks.

Decision-Making System Chart



Environmental Management Performance Monitoring

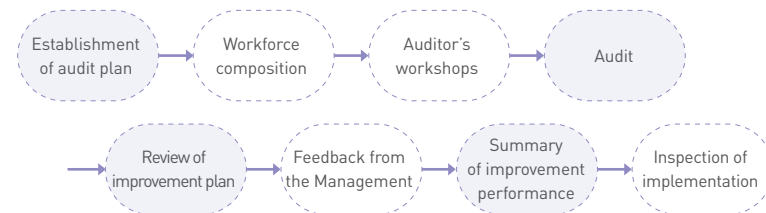
Environmental Performance Assessment System

SK specialty establishes environmental KPIs for each division and department to promote the overall environmental performance, and has selected 'Performing and Achieving Environment Improvement Tasks,' 'Improvement of Environmental Performance Indicators,' and 'Reduction of Energy Use and GHG' as key tasks. The degree of achievement of the tasks is evaluated annually, and the results are used as an indicator for assessment and compensation of the Management and employees. For any executives and managers of departments who are directly related to environmental performance such as the ones at the Environmental Management Team or Environmental Implementation Team, their environmental performance is weighted more during the evaluation, and it is linked to the compensation to motivate them to gain greater environmental performance.

Environmental Audit System

SK specialty conducts regular internal and external audits to manage the overall environmental management system as well as environmental regulations and procedures of its worksites. The operation of environmental management and its performance are evaluated by external institutions every three years. An internal audit is conducted to verify qualifications by the task force that consists of executives and employees who have obtained internal audit qualifications. In addition, regular SHE audits are conducted every year to check the compliance with legal requirements and internal regulations that are related to environment, such as those of air, waste, water quality, soil, and chemicals. In 2021, the audit target was expanded to check accident and legal operation factors of 33 teams from 6 companies, with 8 teams from 2 companies added compared to 2020. The SHE audit system was upgraded by adjusting auditor composition, conducting workshops for auditors, and providing management feedback. A special audit was also conducted to three departments with lower scores on the SHE regular audit.

SHE Audit Procedure



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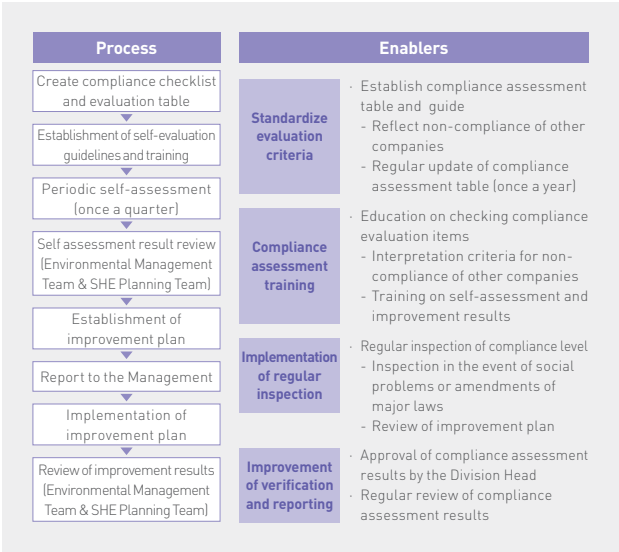
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Environmental Compliance Monitoring

To comply with national environment-related laws such as the Clean Air Conservation Act and the Water Conservation Act, SK specialty has established internal environmental impact assessment procedure and management system for air, water quality, chemical and waste, and we constantly inspect implementation. In 2021, we upgraded the compliance monitoring process to monitor compliance with SHE laws and internal regulations. In addition we have updated our internal compliance evaluation table that covers the amendments of laws, recent SHE issues, and non-compliance cases of other companies, and each site conducts self-evaluation, and the Environmental Management Team verifies this evaluation results on a regular basis. Further, all pollutants, except those for which emissions cannot be managed, are strictly controlled by setting the internal standard to below 50% (some set at 70%) of the legal standard. These efforts are expected to proactively prevent legal violations and minimize the company's impact on the environment.

Environmental Compliance Monitoring and Feedback Framework



Violation of environmental regulations

Fines and penalties for violations of environmental laws and regulations

Zero for 3 years in a row (As of 2021)

Enhancement of Environmental Management Capabilities

Environmental Training

SK specialty has provided training for technical personnel and managers specified in the environmental laws such as the Clean Air Conservation Act, the Water Environment Conservation Act and the Toxic Chemicals Control Act to foster environmental management professionals, while providing training for all members about the risk factors of hazardous chemicals and countermeasures. In addition to the legal trainings, we encourage employees to raise their environmental awareness by providing training on measures to deal with environmental accident, informing GHG-related policies; thus to manage environmental performance. In 2021, we provided ISO 14001 auditor training for employees to secure their expertise in the internal audit of the environmental management system. Safety and health environment board is used to share any environmental issues such as enactment and amendments of environmental laws and the results of environmental impact assessment. In 2022, we plan to focus on maintaining 'zero' legal risk and upgrading the overall system, as well as conducting various activities such as monitoring and managing the training status of legal education, strengthening the SHE education's completion, and providing summary sheets on the educational results to employees.

Environmental Training

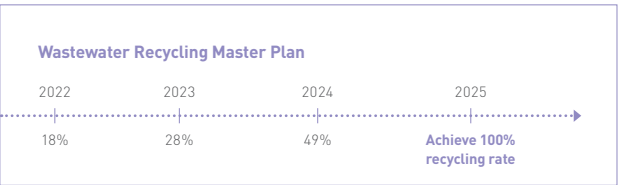
	Classification	Unit	2019	2020	2021
	Air Environmental Technician	Person	3	5	8
		Hours	84	140	224
	Legal trainings	Person	4	6	8
	Water Quality Environmental Technician	Hours	112	168	224
	Hazardous Chemical Substance Technician and Supervisor	Person	38	24	23
		Hours	608	384	368
	Training for Hazardous Chemical Substance Handling Workers	Person	481	331	288
		Hours	962	662	576
	Hazardous Chemical Substance Manager	Person	117	293	152
		Hours	1,872	4,688	2,432
	ISO Internal Auditor	Person	15	-	-
		Hours	240	-	-
	ISO International Auditor	Person	-	-	9
		Hours	-	-	144
Total		Person	658	659	488
		Hours	3,878	6,042	3,968

* There is an interval between trainings. For example, trainings for Hazardous Chemical Substance Manager are held biennially

** ISO Internal Auditor training is held triennially

Water Management

Although water consumption is low due to operational characteristics, SK specialty undertakes activities to improve the efficiency of water use and increase recycling in order to implement ESG management and minimize its environmental impact. As most water consumption occurs in the production process, we are focusing on improving the efficiency of operational water use and increasing the proportion of water that is recycled. Accordingly, SK specialty aims to achieve a wastewater recycling rate of 18% in 2022 and is building the necessary facilities by developing recycling plans for each type of wastewater and establishing specific annual targets. In the future, recycled water will be used as an alternative intake source to minimize business-related water risks. In 2021, we identified water and wastewater usage at all factories to make a recycling plan, and we plan to introduce recycling facilities in 2022 to improve the recycling rate of wastewater from industrial water and pure water manufacturing facilities. In addition, we have evaluated whether suppliers have any environmental management certifications to induce the reduction of water consumption in the entire value chain. In 2022, we plan to select six suppliers to support their ISO 14001 acquisition.



Water Withdrawal and Generation

Classification	Unit	2019	2020	2021
Water Withdrawal	m³	1,088,305.0	1,031,475.5	1,109,700.0
Surface Water (River Water)	m³	1,054,493.0	997,271.0	1,063,299.0
Ground Water	m³	920.0	0	961.0
Public Water	m³	32,892.0	34,204.0	45,441.0
Water Withdrawal Intensity	m³/KRW million	2.39	1.98	1.78
Wastewater	m³	748,828.0	656,688.0	643,031.0

* Sejong Institute's wastewater disposal cannot be calculated, due to the use of integrated wastewater management at the SK trichem wastewater disposal plant.

** Seoul Office's water intake and wastewater disposal plant cannot be calculated, due to the use of integrated wastewater management by the building owner of Seoul Office.

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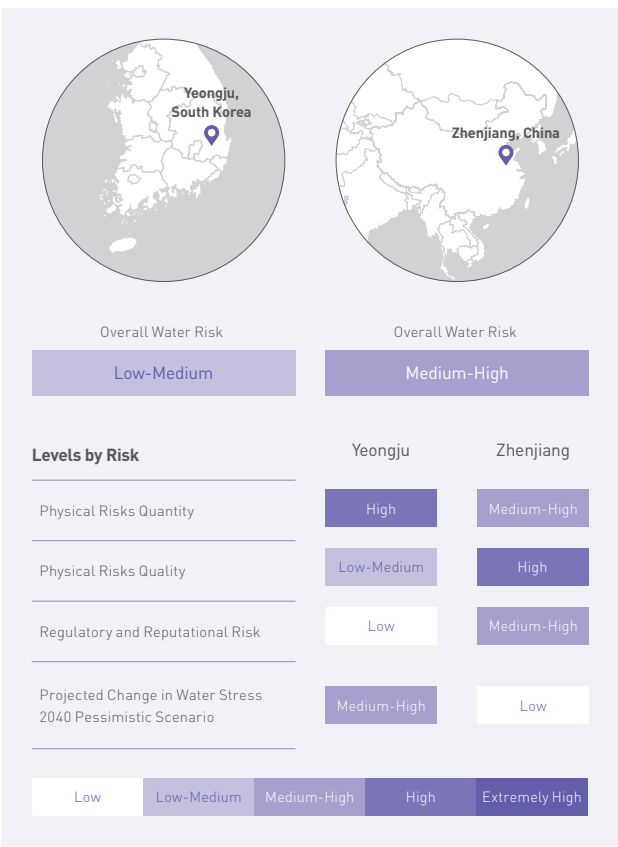
Water Resource Risk Management

SK specialty identifies and manages risks at all phases of water resource use in all phases: intake, use and wastewater treatment. In February 2021, the WRI Aqueduct Water Risk Atlas, a major water resource risk analysis tool, was used to evaluate quantity and water quality risks due to short-term and long-term climate change such as drought, flooding, and seasonal changes, as well as regulatory and reputational risks. The evaluation will be carried out on a regular basis every year. Our water risk analysis found that the Yeongju plant was evaluated to have a relatively low water risk at a low-medium level, but the Zhenjiang plant (SK specialty Jiangsu Co., Ltd.) in China had a somewhat high water risk at a medium-high level. SK specialty manages the water resource risk of the Yeongju plant in consideration of sales and production volume, and plans to expand the scope of management to its plants in China. Yeongju plant has taken water from two wells in Seocheon, a river in Yeongju, so it has had no difficulty in securing water until 2021. SK specialty is working to reduce water use and to engage in water recycling in order to minimize its dependence on water resources. With purpose to address the water resource risk of our major suppliers, we will evaluate their water resource risk and include the results in the ESG item as one of the evaluation criteria for suppliers.

Water Risk Analysis Method

Risk Analysis Tool	WRI Aqueduct Water Risk Atlas
Analysis Scenarios	<div><div>· Time Frame: Baseline and future (2030, 2040)</div><div>· Physical Frame: 10 domestic and overseas worksites in SK specialty and its supply chain</div><div> - SK specialty: Seoul office and Yeongju plant (Korea) and Zhenjiang plant (China)</div><div> - Supply chain 7 manufacturing plants of 5 major suppliers</div><div>· Baseline indicators: Physical quantity & quantity risk, Regulatory and Reputational risk</div><div>· Future Scenarios: Pessimistic, Business as Usual, Optimistic</div><div>· Future risk measurement units: Absolute value, changes compared to baseline</div></div>

Results of SK specialty Plant Water Resource Risk Assessment



Waste Generation Management

SK specialty manages and generates general and hazardous wastes under legal procedures including the wastes generated from the resident suppliers in Yeongju plant area. In addition, we continue to conduct recycling activities such as the introduction of pre-treatment facility for sludge, which was unrecyclable before due to ammonia, to minimize the environmental impact caused by waste generated during the manufacturing process. We aim to achieve a waste recycling rate of 95% or higher in 2023 and obtain a ZWTL* Gold rating by carrying out these activities.

* ZWTL: Zero Waste To Landfill



Building Waste Treatment Process

SK specialty has established the waste management standard to manage the process from waste generation to disposal. In addition, we have adopted a unified waste disposal process that includes our suppliers in the plant so that the wastes are discharged legally. The roles and responsibilities of our suppliers are specified in the waste management procedure, while SK specialty supports waste type analysis and conduct inspections of suppliers' generated waste.

Waste Recycling Rate Improvement Activities

• Waste Generation Reduction

SK specialty plans to introduce a Decanter, a centrifuge, in 2022 for sludge removal of NF3 cells, which was previously cleaned manually, and will mechanize the removal work from 2023. This allows SK specialty to reduce the amount of NF3 cell sludge by 30.5% and increase the reusable Ni content in the sludge, resulting in cost savings through reduced waste disposal costs. Further, SiH4 wastewater treatment sludge, which used to be sent to landfill, has been recycled since March 2022 and about 700 tons have been recycled to date.

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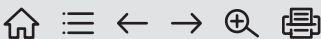
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• Operation of SiO2 Dust Compression Facilities

SK specialty has operated a compression facility since 2021 in order to recycle dust generated from SiO2 (silicon dioxide) waste. Dust is difficult to be recycled in its primary form, but it could be recycled as a subsidiary material for steelmaking when processed into pellets through compression. To this end, the company has improved its compression facilities so that the waste can be effectively recycled.

Amount of waste reduced through SiO2 dust recycling [as of 2021]

6.5 tons

• Introduction of Wastewater Pre-treatment System

SK specialty plans to introduce a pre-treatment facility to recycle sludge generated in the wastewater treatment process and operate in earnest from August 2022. Existing wastewater sludge contained ammonia, which made it difficult to recycle; however, by enhancing the facility's Pre-Stripper*, we are improving the recovery of ammonia from sludge, recycling it as a raw material, and recycling the sludge as a raw material for cement. This is expected to reduce resources, such as the cost of wastewater treatment chemicals.

* Pre-Stripper: A device for separating NH3 from sludge that enables recycling by removing odors generated by non-separation of NH3

Amount of primary wastewater sludge recycling [as of 2021]

1,405 tons

Waste and Recycling

Classification	Unit	2019	2020	2021
Waste Generation	Tons	13,926.9	16,249.1	17,504.0
General Waste	Tons	13,716.1	15,284.4	16,405.0
Designated Waste	Tons	210.7	964.7	1,099.0
Waste Generation Intensity	Tons/KRW 100 million	3.06	3.12	2.81
Amount of Waste Recycling	Tons	10,252.7	12,091.7	13,875.0
General Waste	Tons	10,091.9	11,980.1	13,577.0
Designated Waste	Tons	160.8	111.6	298.0
Rate of Waste Recycling	%	73.6	74.4	79.3

* Seoul Office's waste generation and its recycling rate cannot be calculated, due to the use of integrated waste management by the building owner of Seoul Office.

** Based on Waste Allbaro system (waste integrated managing system used by Korean Environment Corporation)

Pollutant Management

SK specialty recognizes managing atmospheric and water pollutant generation as an activity that should go beyond the compliance; and thus we exert further to fulfil our environmental responsibilities. Strict internal management standards are established to comply with legal standards, and efforts are made to continuously reduce the intensity of major pollutants.

Water Pollutant Management

SK specialty has set internal management standards, stricter than those of the national laws to minimize the generation of water pollutants throughout our production process. In 2021, we set the level of pollutants Chemical Oxygen Demand (COD) and Total Nitrogen (T-N) as below 50% or less (70%, if necessary) of permitted amount under the Water Conservation Act.

All of the water used in our domestic production processes flows into the sewage treatment facility in Yeongju for treatment after going through our own wastewater treatment, and is discharged to the nearest river. Rainwater discharged from the plant area is collected in a storage tank to check for contamination, and then is processed and discharged through a non-point pollution reduction facility. Water discharge facilities, such as rainwater ditches and sewage treatment facilities, are inspected daily, and the concentration of water pollutants in the discharge water is also measured daily.

In 2021, we installed the wireless detection system for storm sewer pollutant in 14 locations to monitor real-time contamination of storm water inside and outside of plants. In particular, the wireless detection system uses wireless communication technology. It has a few installation restrictions unlike the existing technology using a wired cable and excellent cost reduction effect by using solar power.

SK specialty will continue to take the lead in 'Zero water quality environmental accidents' by monitoring pollution more quickly and efficiently.

Major Water Pollutant Emissions

Classification	Unit	2019	2020	2021
COD	Emissions	Tons	9.9	8.6
	Intensity	Tons/KRW 100 million	0.00217	0.00166
T-N	Emissions	Tons	5.4	4.7
	Intensity	Tons/KRW 100 million	0.00118	0.00090

* The average monthly concentration is measured, and annual emissions vary depending on the timing of measurement

**It is managed as COD 18% and T-N 22% compared to legal standards [as of 2021]

Air Pollutant Management

In order to manage the emission of air pollutants such as nitrogen oxides (NOx), sulfur oxides (SOx), and dust (Dust), SK specialty sets internal management standards to 50% or less (70%, if necessary) of the permitted emission levels under the Clean Air Conservation Act. SK specialty has established the internal process to identify the cause and implement corrective actions if air pollutants' emission level is higher than its internal standard. We comply with legal standards and conduct regular and occasional measurements when necessary to monitor the efficiency of pollutants treatment.

Major Air Pollutant Emissions

Classification	Unit	2019	2020	2021
Nitrogen Oxide (NOx)	Emissions	Tons	9.7	5.0
	Intensity	Tons/KRW 100 million	0.00213	0.00096
Sulfur Oxides (SOx)	Emissions	Tons	0.7	0.3
	Intensity	Tons/KRW 100 million	0.00014	0.00006
Dust	Emissions	Tons	0.6	0.4
	Intensity	Tons/KRW 100 million	0.00013	0.00008

* The concentration of nitrogen oxide and sulfur oxide is measured once or twice a year, and the annual emission varies depending on the measurement period.

**NOx, SOx, and Dust are managed down to 21%, 3%, and 5%, respectively, compared to legal standards [as of 2021].

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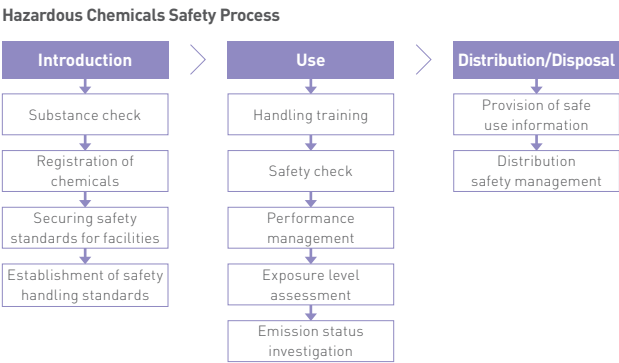
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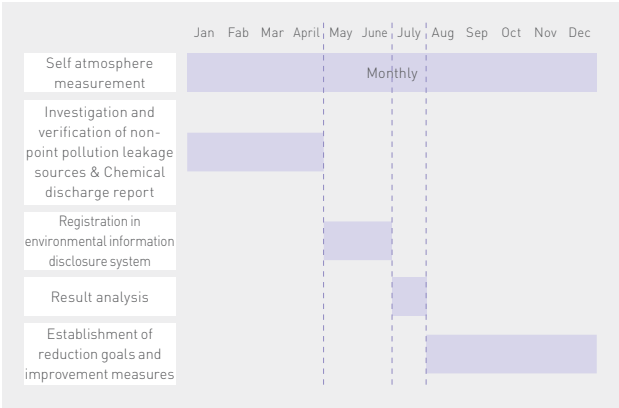
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Hazardous Chemical Substances Management

SK specialty has a system to ensure safety in the entire process of procuring, storing, processing, transporting, and disposing of hazardous chemical substances. SK specialty operates a system that evaluates the risks of chemical substances procured and exported through the integrated chemical management system and verifies compliance with legal requirements. Inspection activities are routinely carried out to identify harmful risk factors in the storage and transportation process. We recognize the seriousness of environmental accidents caused by the leakage of hazardous chemical substances and strive to prevent and minimize the damage by providing safety usage information to customers and managing distribution safety. We have also established reduction goals and improvement plans by annual management of hazardous chemical emissions.



Annual Management of Hazardous Chemical Emissions



Integrated Chemicals Management System

SK specialty has established and operated an integrated chemicals management system to minimize the environmental impact of hazardous chemical substances in its products and to manage them according to the national laws and the company's internal regulations. In 2021, we expanded the scope of the system to our suppliers. We are purchasing products (chemical substances) from suppliers via the electronic purchasing system, and the Purchasing Department directly registers the MSDS (Material Safety Data Sheet) or chemical information in the system. We only purchase substances that have been verified and confirmed by the Environmental Implementation Team and make sure that all the procured chemicals are managed through the integrated chemicals management system. We provide information on potential harm and manuals for safety use to customers when delivering products.

Environmental Accident Response System

SK specialty understands the seriousness of hazardous chemical leaks due to fires, explosions, and natural disasters. We make efforts to prevent and deal with chemical accidents by establishing an early detection system and minimizing the damage as well as the occurrence of accidents through identifying vulnerable areas and taking appropriate measures. We have installed gas detectors in storage facilities and outside the plant as well as paint and tape on the facilities and pipes that get discolored whenever the leak occurs to regularly monitor the leakage. Shielding systems and water curtains are installed in the facilities to minimize damage; the Emergency Operations Center is also operated 24/7 to ensure a prompt response. In 2020, we established an emergency spray system in the deposition gas process, which is designed to automatically operate a spray pump when hazardous chemicals are detected through gas detectors to minimize the spread of hazardous chemical substances in the event of an emergency.

Storage and Transport of Hazardous Chemical Substances

SK specialty is committed to preventing accidents during the storage and transportation process through the enhanced management of facilities and transportation vehicles that handle hazardous chemical substances. SK specialty conducts regular inspections (external inspections once a year; self-inspection on a daily/weekly- and monthly-basis). SK specialty monitors the compliance of transport vehicles at all times when loading and unloading substances for the safety of chemical substance transporting vehicles. In 2021, we added the storage facility inspection as one of the regular 'theme inspection' items to strengthen the storage management system for hazardous chemicals. Further, to ensure safety with respect to chemical transport vehicles, the compliance status of every vehicle is checked during every instance of loading and unloading. For proactive prevention of accidents related to harmful chemicals, we operate a strike-out system that prohibits entry if internal management standards are violated more than three times. Moreover, if transportation vehicles are found to have insufficient tire management, for instance, countermeasures are taken within one month. With hydrogen fluoride (HF) transport vehicles, SK specialty monitors transport status and prevents accidents through the introduction and installation of eye movement detection sensors for drowsiness prevention, hazardous gas detectors, and GPS systems. A protective system has also been established whereby escort and disaster prevention vehicles accompany transport vehicles when passing through the downtown area of Yeongju. SK specialty's employees are responsible for transporting products to customers using company vehicles, and we established a safety system to prevent transportation accidents, including emergency response trainings for drivers.

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Vehicle inspection items when loading and unloading harmful chemical substance



Building the Safety Cooperation System for Local Communities

SK specialty responds to environmental accidents by cooperating with local communities. We have established an emergency contact system (Hot Line) with local authorities, such as the local city hall, fire station, police station, hospital, and air force unit, and share security cameras and automatic gas alarm that can also monitor and control the plant with the city hall control center. Gas detector monitors and electronic displays are installed in three places including the city hall control center and surrounding villages so that members of the local community can monitor the measurements of gas detectors installed outside the plant in real time.

To enable local residents to respond to accidents when they occur, we installed wind vanes nearby villages, provided safety gear and accident response guidebooks, and conducted joint evacuation drills at least once a year. In 2021, SK specialty shared the results of safety diagnoses conducted by external institutions and corresponding improvement plans with members of Yeongju City Council. Although evacuation drills could not be conducted due to the risk of COVID-19, briefing sessions for local residents are expected to resume in 2022 to share information on the company's safety system, as well as advice on what to do in the event of an emergency. In 2022, we plan to resume community briefing sessions to share emergency action tips and our safety system.

Minimizing Ecological Environmental Impact

Since 2018, SK specialty has been making continuous efforts to reduce ecological environment based on environmental risk analysis to preserve the ecosystem around workplaces. Noise prevention and night lighting blocking facilities were installed around factories to reduce noise and light pollution that can disturb communication and biological clocks of wild animals. In addition, we installed green algae removal equipment in reservoirs and managed to remove and prevent green algae, which are the main cause of ecological disturbances.

We monitor the impact of SK specialty's business activities on forest resources by observing the change of plantings according to the season for all factories. Moreover, in 2021, employees and local residents jointly participated in the freshwater fish release program, which contributed to the creation of fishery resources and the restoration of river ecology. Moving forward, SK specialty will continue to thoroughly assess the impact of its business on the environment with a view to identifying and developing activities to reduce and prevent harmful environmental impacts.



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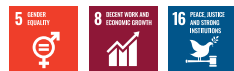
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Respect for Employees

SK specialty has set three directions to ensure the respect for employees and carried out related activities based on the belief that employees are the driving force for sustainable corporate growth. SK specialty strives to create an organizational culture in which diverse employees can respect each other and feel a sense of unity.

[Link to SDGs](#)

Direction of Respect for Employees



Talent Recruitment and Training

Recruitment

SK specialty respects the diversity of all employees and ensures that there is no discrimination based on factors such as gender, race, age, gender identity, academic backgrounds, disability, religion, political orientation, or social status during the recruiting process. Such a policy is specified in the Employment Rules. We are fulfilling our corporate social responsibility by taking affirmative actions for the members of socially vulnerable groups, such as people with disabilities and patriots and veterans. We evaluate the achievements, abilities, and competence of applicants when hiring and seek for talents who pursue the goal of SUPEX* with voluntary and motivational attitude and independent problem solving abilities. In addition, we newly established a on-line recruitment website in 2021 to improve recruitment accessibility by providing job information for applicants, introduction of SK specialty's business, and workplace environment, including welfare and benefits. We will continue to promote and develop the growth of the company and its members by securing and fostering excellent human resources.

* SUPEX: Stands for 'Super Excellent Level,' which means the highest level attainable by human ability

Qualities We Seek



Confidence in Management Philosophy Pae-gi

Sustainable Happiness of SK People and Stakeholders with the Culture of SUPEX through VWBE

VWBE

Voluntarily, Willingly, Brain Engagement

SUPEX

Super Excellent, the highest attainable level of human performance



Pae-gi

Pae-gi means a spirit that challenges and overcomes hurdles in one's work. People who possess Pae-gi are self-motivated; they raise issues, challenge high goals, and break existing frameworks through bold execution. In the process, they strive to develop the necessary competencies and achieve higher results by actively communicating with others.

Employees¹⁾

Classification		2019	2020	2021	
Total Number of Employees	Total	738	794	801	
	Male	647	693	713	
	Female	91	101	88	
Contract Type	Permanent Employees	Total	709	764	734
		Male	625	667	653
		Female	84	97	81
	Contract Workers	Total	29	30	67
		Male	22	26	60
		Female	7	4	7
Position	Executives	Total	15	17	11
		Male	15	17	11
		Female	0	0	0
	Supervisory position ²⁾	Total	181	230	194
		Male	157	195	170
		Female	24	35	24
	Team members	Total	542	547	596
		Male	475	481	532
		Female	67	66	64
Socially Vulnerable Persons	Disabled Employees (Proportion ³⁾)	21(3.8%) ⁴⁾	21(3.5%) ⁴⁾	23(3.2%) ⁴⁾	

1) Based on the disclosed data

2) Employees above L4 (managerial level)

3) Including members of its disability-friendly workplace subsidiary, Happy Companion corporation

4) Calculation based on special levy for disabled employment

Job Creation

Classification		2019	2020	2021 ¹⁾
New Recruits	Total	85	113	115
	Gender			
	Male	60	95	104
	Female	25	18	11
	Age			
	Below 30	49	24	47
Turnover Rate ²⁾	30~50	33	78	62
	Over 50	3	11	6
	Total	4.5	5.5	3.1
	Turnover Type			
	Voluntary	3.8	4.8	3
	Other ³⁾	0.7	0.7	0.1
Average length of service	Total	6.5	6.7	7
	Male	6.7	7	7.1
	Female	4.9	5.3	5.7

1) 2021 data is calculated only for the number of people after split-off in Dec 2021

2) Excluding the number of people moving to investment companies

3) Retirement, expiration of contract period, etc.

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Talent Development

• Talent Development Policy

SK specialty is fostering talents with common competencies, job competencies, internal mobility, and resilience to changes in business environment. In addition, we strives to nurture human resources with a balanced global capability with SK Group's core values, and actively support the growth of employees by establishing a talent development system for each group and competency as well as growth in workplace.

Employee Training System

	Target	Common competency	Job competency	Values	Global
	Executives	Executive leadership course	mySUNI job-specific course (Biz strategy, ESG, HR, marketing, finance and accounting, etc.)	· Training for new employees	· Foreign language competency improvement training
	Team Leader	Team leader leadership course		· Onboarding Program	
	Team Members (Office)	DT competency internalization course*		· SKMS workshop	· Expatriates training
	Team Members (Field)	Field Manager Leadership Course	Job Competency Course for field positions*		

* Key training courses to respond to changes in Biz environment

• Employee Training Program

SK specialty operates systematic education and training programs to foster global talent and build capacity of employees. Education and training programs are provided according to the level of knowledge and competence required for particular duties, and each employee voluntarily participates in training programs based on their annual course plan. In 2021, we conducted interviews for technical managers to establish a training system for their duties and necessary skills based on competency diagnosis. We endeavor to create a culture of voluntary learning environment by utilizing 'mySUNI,' SK Group's learning platform.

Along with capacity-building activities such as AI/DT literacy education that are conducted to foster leaders in the era of Digital Transformation (DT), we are running education sessions regarding the importance of creating

social values and happiness for the sustainable growth of employees of SK specialty. In 2021, we established a level training system for DT Basic¹⁾, held a performance sharing meeting to build motivation, and introduced a certification system²⁾ to strengthen DT expert training. We plan to foster 44 DT experts who have certification of 'DT Advanced' by 2024 by supporting the improvement of DT competencies of our employees.

- 1) DT Basic: Employees who use automated models/algorithms based on data analysis and understanding and identify insights to solve problems, even if they are not proficient in programs or specialized data analysis skills
- 2) Certification level granted upon completion of training and practical tasks (all employees: DT White Belt, DT Basic: DT Green Belt, DT Advanced: DT Black Belt)



Key Program #2 DT Basic Training Program	
	Certification Requirements
All Employees	<ul style="list-style-type: none"> Completion of WEKA utilization Applicate and complete RPA tasks related to duties
DT Basic	<ul style="list-style-type: none"> Completion of Python basic Completion of task of processing large data using Python
DT Advanced	<ul style="list-style-type: none"> Completion of Python Advanced Completion of DT tasks in duties
	<div> DT White Belt </div> <div> DT Green Belt </div> <div> DT Black Belt </div>

Employee Training Program

Leadership	Leadership program	<ul style="list-style-type: none"> ELP (Executive Leadership Program) FLP (Future Leadership Program) HLP (HIPO¹⁾ Team Leader Program)
	Workshop	<ul style="list-style-type: none"> Executive Team Leader Group Leader
SK Values	Training for new executives and team leaders	<ul style="list-style-type: none"> Leadership and management capacity-building training to drive change Training for the next executive candidate
	Training for new employees	<ul style="list-style-type: none"> Training to promote a sense of belonging to SK Group
	SKMS ²⁾ workshop	<ul style="list-style-type: none"> Increase understanding and execution of SKMS
Job Competencies	Onboarding Program	<ul style="list-style-type: none"> Understanding the company and Soft Landing program
	mySUNI	<ul style="list-style-type: none"> Mobile applications and groupware with contents for SK Group's core values and self-development
	Technical and job competency training	<ul style="list-style-type: none"> Engineering expert program Technical field expert training program Job training by organization
Global	AI/DT literacy training	<ul style="list-style-type: none"> Compulsory training for all DT employees DT Basic training
	Language education	<ul style="list-style-type: none"> Foreign language training
	Global competence training	<ul style="list-style-type: none"> Soft Landing program for expatriates or candidates in overseas branches

1) HIPO: High Potential

2) SKMS: SK Management System

Training Time and Expenses per Employee

Classification	Unit	2019	2020 ¹⁾	2021 ²⁾
Training time per employee	Hours	48.4	201.9	100.5
Cost per employee	KRW 10,000	118	174	176

1) In 2020, contactless learning time increased significantly with the launch of SK Group's learning platform mySUNI.

2) 2021 data is calculated only for the number of people after division

Training Satisfaction Scale (Out of 100)

(Unit: score)

Classification	2021
DT training	85
Training for field managers	91.4

* Survey target: 251 DT trainees and 391 field trainees

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Evaluation and Remuneration

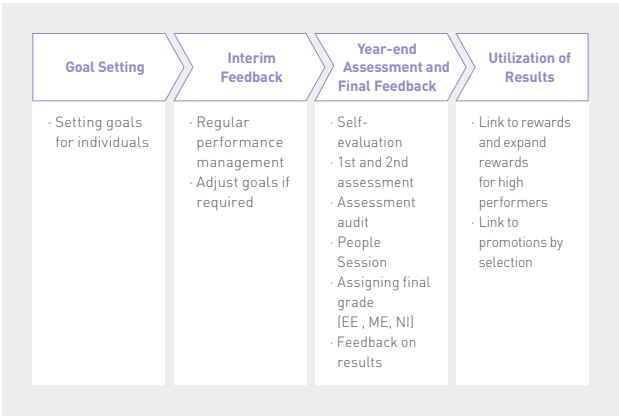
Evaluation Process

SK specialty operates a fair evaluation and compensation system based on performance. The evaluation consists of a performance evaluation and a competency evaluation, and employees set their work goals at the beginning of the year through the discussion with the leader of their department. The performance of the organization and employees is managed throughout the year via continuous feedback. SK specialty encourages employees to achieve the best performance in the given situation adjusting or setting additional goals.

After the five evaluation steps are completed, the evaluation audit is conducted under the supervision of the HR organization to check for any discrimination in the assessment process. Evaluation grade is determined by the final evaluation. The evaluation result is finalized once is reviewed by the HR Committee and reported to the CEO. The results are delivered to employees, and then a final feedback meeting is held to discuss support for setting and achieving goals for upcoming year. From employee’s perspective, if the results and the feedback are unacceptable, they can appeal for an objection, and the final evaluation results are widely used for promotion, training, and compensation.

In 2021, job competency evaluation items were specified to enhance fairness and transparency in the evaluation process that helps employees grow. Evaluation grade was determined by a head of department in the past. However, it is determined by the ‘People Session’ consisting of a second evaluator (director/plant manager) and HR to review competencies, achievements, and evaluation of employees.

Annual Performance Assessment and Management Process



Percentage of Members Applied to the Assessment Process

Classification	2019	2020	2021
Percentage of Employees Applied	100%	100%	100%

* Percentage of employees who have been in office for at least 6 months in the assessment year

Compensation System

Compensation for employees consists of a base salary which is determined by their position, role and duties, and a variable salary (performance bonus) which is determined by the company's management performance and evaluation results. SK specialty strives to operate a reasonable and fair compensation system based on the performance and capabilities of each employee, and strictly prohibits the discrimination against gender, age, educational background, etc.

Linking Social Value and ESG Performance to Compensation

SK specialty evaluates ESG performance of all employees, and reflects them in compensation to promote ESG management. When setting the KPI for CEO and executives, each department and employee, we are asking for the departments to include 20~50% of ESG-related goals to reassure the creation of social value.

We encourage ESG performance by reflecting tasks in the performance assessment: climate change response and green workplace tasks such as Net Zero/RE100 implementation and waste/water recycling as well as social and governance tasks such as safety management, ESG risk management for suppliers, local community support, and promoting responsibility of BOD in ESG management. A higher of SHE compensation has been set for any technical managers for safety, health and environment management.

Social value and ESG performance are reflected in the final evaluation results and used as the basis for performance bonus (incentive). In 2022, the range of ESG tasks were expanded based on ESG performance improvement roadmap. In 2023, we plan to upgrade and expand the scope of performance evaluation tasks by area such as climate change, diversity, and supply chain in line with stricter global norms.

KPI Components

EV	ESG
Financial performance	Net Zero implementation (carbon emissions)
Perform strategic tasks	Achieving core ESG goals
Quality improvement	Increase SHE level to the global standard
Strengthen DT-based Biz. competitiveness	Increase the happiness of the employees

Creating Corporate Culture of Mutual Respect

SK specialty defined its goal of corporate culture as “Employee Happiness”. SK specialty believes that it can grow into a sustainable and respected company when happy employees pursue the happiness of society with its power of unity. If the company pursues the happiness of its employees, they can take more pride in the company, equate their personal growth with that of the company to find meanings in work, and ultimately form a virtuous cycle of Employee Happiness.

SK specialty has established its Happiness 112 principles with three goals: respect for time, respect for work, and respect for people to pursue Employee Happiness.

Happiness 112 Campaign

SK specialty has established the principles of Happiness 112* to induce the mutual respect and thoughtful action of the employees. We are also conducting related campaigns to enhance understanding of the principles, and to spread a culture of principle compliance. We share the short clips of each principles to employees, and share a pledge of action that is prepared by each department, to build a culture of respect for employees.

* Happiness 112: 12 promises to work (1) happily

Mutual Respect Project

SK specialty recognized that the experience of employees related to mutual respect is an important factor in happiness. We carried out the ‘MR UP (Mutual Respect Upgrade) project’ to normalize and systematize a culture of mutual respect. We select themes related to mutual respect every month, such as respect for time and diversity, and share weekly content with each team, and then have a wrap-up time to create reviews and pledges.

Horizontal Mentoring Process

SK specialty has conducted the ‘Horizontal Mentoring’ program so that employees, regardless of their rank, can become instructors and give mentoring lectures on topics or trends they want to introduce.

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Key Program #3

Employee Satisfaction Survey

SK specialty annually conducts the Culture Survey to assess the level of an employee's happiness/satisfaction, and carries out improvement activities based on survey results and feedback. In 2021, we conducted the Culture Survey by embodying and elaborating the questionnaires that reflect changes in the business environment and opinions of external experts. 736 (approximately 94%)¹⁾ out of 780 members participated, and due to the split-off scores of the company's future and direction declined year-on-year. Therefore, since the end of 2021, after the split-off of the organization, we have been continuing activities to strengthen trust in the future of the organization by communicating with the members about the management goals and specific strategies to realize them. In addition, in 2021, a question of 'Organizational Fairness' was added to the Culture Survey. Hence, in order to improve the fairness of procedures, distribution, relationships, and information from the perspective of employees, we improved the evaluation system, procedures, and processes, and conducted a leader webinar²⁾ for former directors to ensure that those improvement plans were properly put in place. We will continue to improve the happiness of members in various areas by identifying the needs of members through continuous improvement and diagnosis of organization diagnosis tools.

- 1) Based on the members during the survey period from Sept 27th to Oct 1st
2) Organizational Fair and Leadership webinar was held on 26 October 2021

Culture Survey Questionnaires			
		2020	2021
Belief and confidence in management philosophy		5	5
VWBE* practice and all conditions		9	9
System management to realize SUPEX Company		5	9
Employee happiness/organizational characteristics	Employee happiness	3	3
	Factors in workplace happiness	12	13
Organizational fairness		-	4
SV pursuit and ESG management		4	4
Happiness 112 practice levels		12	12
		50	59

Culture Survey Result (Out of 100)

(Unit: score)

Classification	2019	2020	2021
Culture Survey	69	83	73

* VWBE : Voluntarily, Willingly, Brain Engagement

Organizational Communication

Labor-Management Council Meeting

SK specialty holds quarterly labor-management council meetings attended by the management and employee representatives to discuss the issues on their works and their working environment, and the agreement made during the meeting is applied to the employees of SK specialty. In 2021, thirty topics were discussed in the meetings, and the meeting reached an agreement on the split use of long-term service reward leave, improving group accident insurance, and simplifying student loan application. We hold a labor-management working council with employee representative members and HR managers in prior to discuss the issues and form a consensus on major issues before the regular labor management council is held. In 2021, a labor union was newly established with a total of 457 members to create a labor-management relationship of mutual growth and cooperation through collective agreements and continuous communication.

Labor-Management Council Meeting

(Unit: person)

Classification	2019	2020	2021
Members	20	16	12

Communication Program

SK specialty plans and operates various communication channels and programs to establish a pleasant organizational culture and promote communication among employees. The goals are to achieve interactive rather than simple one-way communications between SK specialty and its employees, and to create an environment in which employees can freely express their own opinions.

Communication Channel and Program

Area	Description
Department discussion meeting	· Discovering happiness factors specific to the department to which employees belong · Maximizing the advantages of organizational culture
Intranet homepage	· Operation of anonymous suggestion and inquiry boards / SHE suggestion box · Analysis of employees' opinions by gathering 'likes' and the 'comments' of the online posts
Late-night radio show, 'To You, Who Forget Your Night'	· Communication with employees who work for the night shift
YouTube live show, 'Happiness On Air'	· Sharing company strategic direction (hosted by the CEO)
Facebook page 'Salon de FAM'	· Sharing happy moments in daily life of employees (via photos, videos, etc.)

Human Rights and Diversity

Human Rights Policy

In March 2021, SK specialty established a human rights policy that employees must comply with to prevent human rights violations by stakeholders in business relationships, such as members and suppliers. The company supports all standards and laws in the area of labor and human rights, and the related international organizations and bodies, including the Constitution of the Republic of Korea, the UDHR¹⁾, the UNGPs²⁾, the ILO³⁾, and the OECD Due Diligence Guidance⁴⁾ for Responsible Business Conduct based on the human rights policy. In February 2021, SK specialty joined the UNGC⁵⁾ and declared its compliance to the ten principles of human rights, labor, etc.

- 1) UDHR: Universal Declaration of Human Rights
2) UNGPs: UN Guiding Principles on Business and Human Rights
3) ILO: International Labor Organization
4) OECD Due Diligence Guidance: OECD Due Diligence Guidance for Responsible Business Conduct
5) UNGC: UN Global Compact

Detailed Principles

Area	Policy
Respect for Human Rights	SK specialty shall respect all its employees as equal beings and endeavor not to compromise human rights.
Working Environment and Safety	SK specialty shall comply with international standards, relevant statutes, and internal regulations on the working environment to create a pleasant working environment and prevent safety accidents.
Prohibition of Forced Labor	SK specialty shall respect employee's free will against mental and physical restraint and shall not require the transfer of government-issued identification cards, passports or work permits in terms of employment.
Prohibition of Child Labor	SK specialty shall not employ children or adolescents under 15 years of age, shall not allow children or adolescents under 18 years of age to be engaged in dangerous or harmful works to comply with laws and regulations on child labor in all regions in which we operate.
Working Hours Compliance	SK specialty shall comply with working hours regulations of the regions in which we operate in terms of regular, overtime, and holiday work.
Wage and Welfare	SK specialty shall pay more than the minimum wage prescribed in the regions in which we operate, along with the payroll statement.
Prohibition of Discrimination	SK specialty shall respect the diversity of all employees, and ensure that discrimination based on factors such as gender, race, age, gender identity, religion, or social status does not occur in recruitment, wage, promotion, and other personnel processes.
Freedom of Association	SK specialty shall guarantee freedom of association in accordance with labor relations laws and regulations on labor relations in the regions in which we operate. Employees shall not face unfair treatment shall not be applied on the grounds of membership or activities of trade unions.
Freedom of Expression	SK specialty shall preserve the ones' freedom of expression and opinion without intrusion, getting information freely from borders or media, pursuing idea and communication.
Personal Information Protection	SK specialty shall protect the personal information of stakeholders in accordance with local laws and regulations to protect human rights of all stakeholders. The company shall not use personal information for any purpose other than the reason for which it has been collected without the consent of the person concerned.

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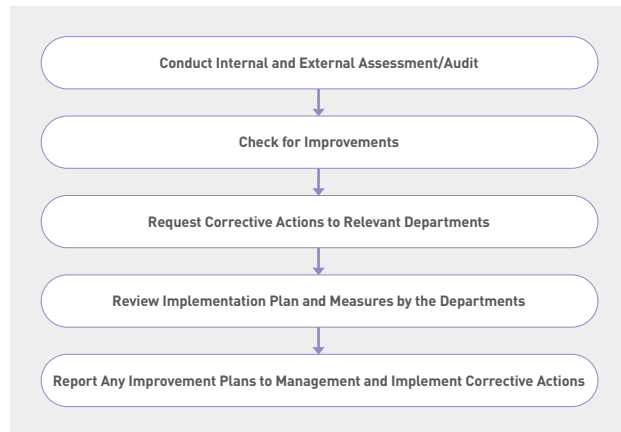
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Human Rights Risk Management Process

SK specialty operates a human rights management process to prevent human rights violations of stakeholders during its management activities.

We conduct evaluation and audit based on its human rights policies and implemented the established improvement plans once they are carefully reviewed by the Management. The implementation of the action plan is continuously monitored and followed-up until the corrective action is made or until it meets the certain standards.

Human Rights Risk Management Process



Human Rights Violation Prevention Program

SK specialty conducts theme-based regular education programs every year to prevent human rights violations. In 2021, we provided online training programs on 'Sexual Harassment Prevention,' 'Education for Disability Awareness in the Workplace,' 'Personal Information Protection,' and 'Prevention of Workplace Harassment' for all employees. In addition, we established 'Happiness 112' principles that include prohibition of verbal abuse, abusive language, and sexual offense to prevent human rights violations and assessed the implementation of such principles through the employee surveys.

Inclusive Working Environment

SK specialty recognizes that the innovation of an organization is arisen from the diversity of our employees, and thus puts efforts to enhance the diversity within the organization. We also create a female-friendly working environment to enhance the gender diversity.

In 2021, we identified the issues that threaten gender diversity within the company, and based on the findings, we established working environment improvement tasks to make a more inclusive working environment.

In addition, we are establishing the management system that prevents career interruption of our female employees and provides support for their growth as leaders. We also provide the parental leave, reduced working hours during the child-rearing period, and the leave for infertility treatment that are in accordance with the relevant laws, as well as the female-only resting place. In 2021, starting from two female team leaders, by focusing on securing and fostering core female leaders, we have been providing trainings for to select and support more of female members. We will continue to enhance the system and expand our related support activities to create a female-friendly workplace.

In addition, in 2021, in order to improve the perception of diversity and inclusion of members, we shared concept definition and importance, including recent global trends and case studies of other global leader companies. Through this, we have defined the culture of diversity and inclusion that SK specialty should pursue, and laid the foundation for recognizing and embracing each other's diversity by allowing employees to be aware of their own prejudice and to change their mindset.

Diversity and Inclusion Letter

SK Specialty 가 추구해야 할 문화

성별, 인종, 민족, 국적, 종교, 장애, 임신, 나이, 결혼 여부, 성적 지향, 성 정체성 등에 관계없이, 그리고 생각, 사고, 가치, 믿음의 차이에 상관없이 모든 배경의 사람들을 포용하는 마음으로 공동체 일원으로서 인정하고 적극 지원해야 합니다.

회사 구성원의 다양한 개성/재능을 인정하고, 다양성 포용력 갖춘 인사정책 및 교육을 해야 함

구성원 본인의 편견 자각, 마인드 전환을 통해 서로의 다양성을 인정하며 포용할 수 있도록 노력해야 함

▶ SK Specialty 는 모든 이해관계자에게 동등한 기회를 제공하고, 장벽과 편견이 없는 다양한 인재와 다양성/포용의 문화를 통해 성장할 수 있을 것입니다.



Operation of 'Happy Companion' Subsidiary: Disability-Friendly Workplace

SK specialty operates the 'Happy Companion Co., Ltd.,' its subsidiary to provide stable jobs for employees with disabilities and to preserve the diversity of the entire company. As of the end of 2021, a total of 23 disabled employees (7 severely disabled) are managing the indoors and outdoors cleaning of the office building and laundry and postal services operating within the company. SK specialty is endeavoring not to limit the business scope of 'Happy Companion.' SK specialty seeks to find areas where disabled employees can provide appropriate welfare-supporting service for the company and therefore expand the work area of disabled employees and, ultimately, scale-up the overall employment.

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Social Contribution

SK specialty promotes various social contribution activities to create a sustainable and happy society. We contribute not only to the local economy, but also to building a society in which everyone is happy and grows together. We will continue to share happiness with the local community with our belief in a virtuous cycle in which both our social value and economic performance created for the local society will again become the groundwork for the company's development.

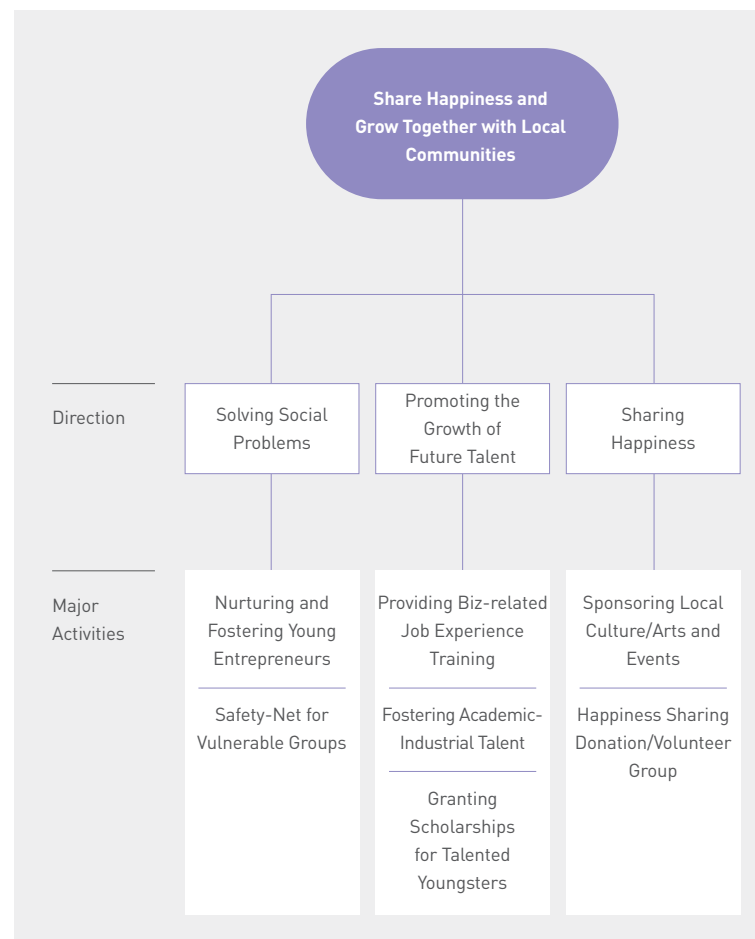
Link to SDGs



Social Contribution System

Under the slogan of 'Share Happiness and Grow Together with Local Communities,' SK specialty strives to contribute to society by selecting key social value strategies that could contribute to solving social problems, promoting future talents, and sharing happiness with others. After a close and in-depth discussion with the ESG Management Team, the Public Affairs & Communication Department arranges all the social contribution activities conducted at Yeongju community.

Social Contribution System



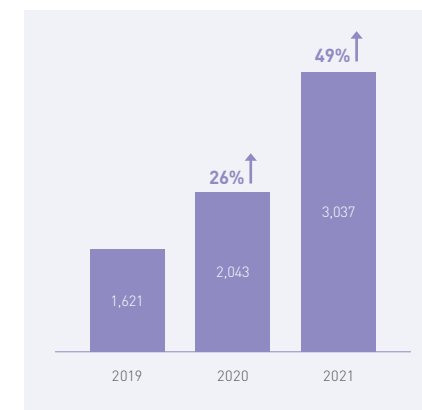
Mutual Growth and Communication with the Local Community

SK specialty continues to communicate with local stakeholders for its co-existence with the local community and to play an important role in regional development. We promote a variety of communication activities to establish a cooperative system and build trust with the community, especially to ensure their safety. We regularly invite local residents to our plants and provide tours of our on-site safety facilities while explaining our safety policies. In addition, to enhance communication on safety, we conduct emergency evacuation drills for local residents of Yeongju, where our production plant is located. In 2021, we provided training for local representatives on safety guidelines in the event of emergency situations. In addition, we revised and distributed the emergency response manual to strengthen the emergency response system with Yeongju. In addition, we proactively cooperate with local governments and their affiliated organizations, and educational institutions to identify the local pain points, rolling out effective social contribution activities. Through active communication, we will continue to maintain cooperative relationships with local stakeholders to share happiness with them and prosper together.

2021 Highlight

Social Contribution Investment

(Unit: KRW million)



Employees in Social Contribution Activities

Total hours in 2021
1,548 hours
Average annual volunteer work per person
3 hours

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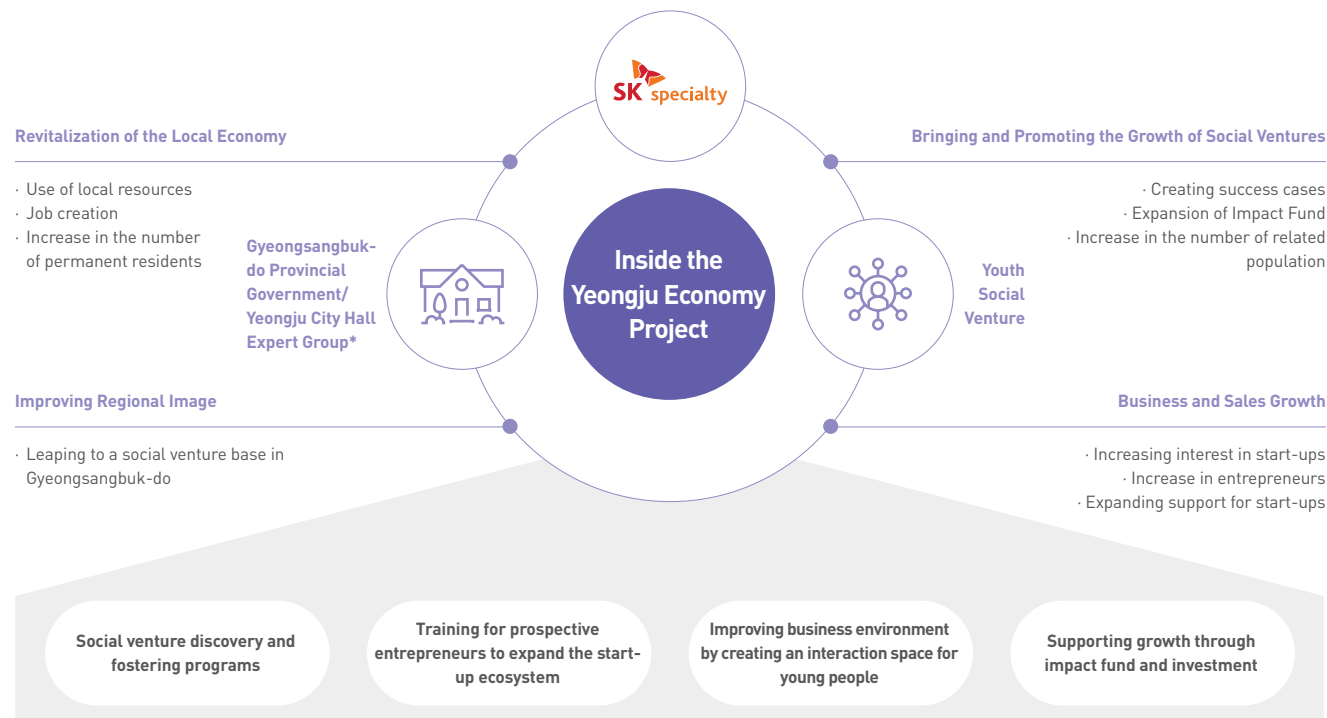
Solving Social Problems

As a cooperative partner of the local community, SK specialty strives to identify and contribute to solving social problems that local residents are confronted with. In 2021, we moved forth by discovering and stimulating the growth of social ventures and establishing the social safety net for vulnerable groups in the community as our key priority tasks.

Vitalization of Regional Economies

SK specialty is promoting various programs with an accelerator company (Impact Square) specializing in social ventures to contribute to the influx of young people into local regions, job creation, and revitalization of the local economy. In 2021, we launched the 'Inside the Yeongju Economy' project to provide various methods of support to solve pain points from Yeongju's perspective and to revitalize the local economy. The project aims to create an environment suitable for the growth of young entrepreneurs who will lead regional changes in Yeongju and a local start-up model that can coexist with the region. It consists of four major project areas: social venture discovery and fostering programs, training for prospective entrepreneurs to expand the start-up ecosystem, improving the business environment by creating an exchange space for young people, and supporting growth through impact fund and investment.

In December 2021, we signed a business agreement with Impact Square, a social venture accelerator, as well as Gyeongsangbuk-do and Yeongju, to announce the start of the project. In order to make the 'Inside the Yeongju Economy' project a success, we plan to actively support and implement the project in cooperation with local governments from 2022.



* ImpactSquare, Gyeongbuk Center for Creative Economy & Innovation

Setting Safety-Net for Vulnerable Groups

• Support for Vulnerable Groups

SK specialty currently conducts various social activities to provide basic livelihood support services to vulnerable groups that experience considerable difficulties in living. For disabled and the elderly, we support a residential environment improvement project that supports the maintenance of drainage ditches, new bathroom construction, and wall reinforcement in preparation for the rainy season, as well as a heating cost support project. In addition, we conduct a Happy Two meals project to regularly support side dish packages to help underprivileged children, and at the end of the year, we provide rice, briquettes, and kimchi to disadvantaged neighbors.

Key Activity

Warm Contact With One Meal Project

SK specialty organized the 'Warm Contact with One Meal' Project to support 300 Yeongju senior citizens who live alone and have difficulty obtaining meals due to the suspension of free lunch centers after the spread of COVID-19. The project was supported by local institutions and organizations in Yeongju for a year.



* We measure the impact of these social contribution activities to assess long-term changes and plan to expand the scope of measurement to all our social contribution activities in the future to manage our performance in terms of social contributions.

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• Enhancing Mobility for Transportation Vulnerables

SK specialty installed 10 free electric wheelchair charging stations through an MOU with Yeongju and the Welfare Center for the Disabled to improve accessibility and mobility. Charging stations are always comfortable and can be charged fast with full charging within two hours, which greatly contribute to solving the difficulties of movement experienced by the disabled.

• Support for Fire Prevention in Traditional Markets

SK specialty supported the production of the 'Fire Seed Extinguisher Box,' specially manufactured for briquette ash treatment to prevent the increasing risk of fire in winter. The fire extinguisher boxes have a cooling extinguishing function that can cool down the heat of briquette ash quickly and were distributed to 10 stores in traditional markets in Yeongju.



Free Charging Station for Electric Wheelchairs



Fire Seed Extinguisher Box

Promoting the Growth of Future Talents

SK specialty is carrying out a range of activities to foster local talents. We develop and provide educational programs related to semiconductor material to local students. Through an academic-industrial partnership with local community schools and institutions, we expect to foster professional personnel and provide job opportunities for local students. We also operate several support projects, such as the arts and sports scholarship program, to foster talents in various fields within the community.

Job Experience Training for Semiconductor Materials

SK specialty has provided career experience programs to youngsters from the local community to enhance their understanding of the semiconductor materials industry and provide support to those who are interested in the industry to raise them as semiconductor materials experts.

In 2021, despite the COVID-19 situation, we provided five classes of job experience training related to the semiconductor material business to local students.

Academic-Industrial Partnership

SK specialty operates an academic-industrial partnership to foster gas facility and process management experts and provides employment opportunities to talented candidates. We hold a 'gas process training course' to foster young experts at the Yeongju campus of Korea Polytechnic University. In 2021, we hired 36 outstanding trainees who completed the course (held twice annually).

In addition, we signed an MOU with Kyungbuk College, and currently run an academic-industrial partnership program to jointly train experts through a cooperative relationship to meet industry demands. An "Industry Partnership Class" was established in the fire safety management department of Kyungpook National University, and a member of SK specialty with safety-related expertise conducted a special lecture on safety for trainees. Two outstanding trainees were selected from the class and sent to four weeks of field training programs at the Emergency Operations Center.

Fostering Talents in Arts and Sports Industry

SK specialty has provided scholarships to students majoring in arts and sports in Yeongju since 2017. We sponsor scholarships for arts and sports students at 6 elementary, middle and high schools and universities in various fields such as soccer, cycling, and orchestra.

Number of students engaged in talent development programs (as of 2021)

302 people



Job Experience Training



Happiness Sharing Activity

SK specialty is committed to implementing happiness sharing programs to discover and provide support for local community.

To this end, we sponsor cultural events in Yeongju. Employees are working to implement such programs in various fields through happiness sharing donations and volunteer group activities.

Support for Local Cultural and Artistic Events

SK specialty sponsored the Yeongju Culture and Tourism Foundation for the successful hosting of the 'Ginseng Festival' and the 'Madanggeuk Dendong Mother' performance, which are the representative cultural and artistic event in Yeongju. By supporting local events in Yeongju-si, we offered an opportunity for Yeongju residents to have a cultural life despite the COVID-19 situation.

Sponsorship of Local Cultural/Art Events (as of 2021)

KRW 30 million

SK Pro Bono Activities

As part of our Pro Bono* activities in 2021, SK specialty provided safety consulting to two local social enterprises without any payment, 'Dream Woodworking School' and 'Soil Love,' using the professional knowledge and experiences of our employees. We brought together personnel with professional competencies in the SHE field to inspect safety and firefighting facilities and prepare items for improvement for the two enterprises. In addition, we provide various safety equipment, firefighting equipment, and signs to prevent accidents, with the aim of laying a foundation for improving standards of safety at local SMEs.

SK specialty will continue to provide various activities and support to enhance SHE standards at local SMEs.

* Pro Bono means any professional works undertaken voluntarily and without payment.

Participation of Employees in Social Contribution Activities

SK specialty encourages employees to voluntarily participate in social contribution activities and create an organizational culture that helps solve social problems for the local community. As part of these efforts, we have operated the Happiness Sharing Volunteer Group since 2019. In 2021, despite COVID-19, activities to create social value and a virtuous circle were conducted, such as environmental cleanup activities, job experience training and blood donation.

In addition, with the Happiness Sharing Volunteer Group, we support vulnerable groups within the local community through the Happiness Sharing Donation by funding 0.5% of employees' basic salaries as a matching grant*.

* Matching grants: A system in which a company donates the same amount as the amount funded by the employees

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Security and Information Protection

Information is regarded as an increasingly important corporate asset while the information leakage process is becoming more varied. SK specialty structurally manages internal security, raises the awareness of security of its employees, and establishes information security-related guidelines and regulations to prevent the leakage of personal information. In addition, we have security processes that protect information and facilities of industrial technology assets from any cyber attacks and hackings.

[Link to SDGs](#)

Security Management System

Security Regulations and Guidelines

SK specialty provides 17 guidelines for information security management, 4 guidelines for physical security and 5 guidelines for industrial security. In 2020, we newly established 5 applicable guidelines of industrial security for employees and other entities to enhance the protection of our industrial technology assets. All regulations and guidelines are reviewed and revised by the Chief Information Security Officer (CISO) at least once a year and shared with all employees through our groupware system.

Security regulations and guidelines

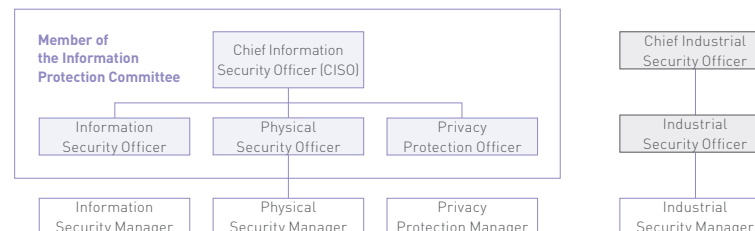
Information Security Regulations	Physical Security Regulations	Industrial Security Regulations
<ul style="list-style-type: none">Information asset managementResponse to infringementsPersonal information protectionSecurity inspection, and protection audit process, etc.	<ul style="list-style-type: none">Facility securityVehicle accessEntry and exit of personal goods, etc.	<ul style="list-style-type: none">Industrial technology asset managementIndustrial security inspectionAccident responseIndustrial system operation, etc.

Security Management Organization

SK specialty employs a Chief Information Security Officer (CISO) to systematically protect our proprietary information. In addition, we appoint officers and managers in the areas of information security, physical security, personal information protection, and industrial security. We operate an information protection committee, composed of the CISO and officers in charge of each security area, to discuss and review related issues.

In order to prevent the leakage of information related to SK specialty's business and facilities, we have established an organization dedicated to this purpose. The Industrial Security Committee is operated as a decision-making body that reviews, discusses, and determines any kind of industrial security issues and is composed of our Industrial Security Officer, an Industrial Security Manager, and the IT Planning and Security Team.

Security Management Organization Chart



Personal Information Protection

SK specialty has established the Personal Information Protection Guidelines to provide security requirements to be observed in all personal information protection processes such as collection, recording, storage, retention, processing, editing, search, output, use, provision, and destruction. All personal information is encrypted and stored, and an information protection system is established to nominate a person in charge of handling personal information and to prevent unauthorized access to the database. Employees who handle personal information must complete personal information protection training, and they continuously inspect and promote the personal information management system.

Industrial Security Activities

SK specialty has established and operates a firewall system to prevent external infringements of our industrial systems, as well as to prevent leakage of internal information. We maintain a separately operating network environment that blocks physical connections using a firewall system, prohibits the import/export of unauthorized data, and prevents the use of removable storage devices. We also ensure security through regular OS updates and antivirus installation on major assets and devices, and we conduct internal security checks at least twice a year.

Information Security Activities

Security Solutions

SK specialty operates security solution systems such as IDS (Intrusion Detection System)/IPS (Intrusion Prevention System), firewall, and DDoS (Distributed Denial of Service) response equipment to prevent information infringements from external entities. We are constantly monitoring information infringements through our security solution equipment and systems, as well as regularly inspecting and improving the solution system through vulnerability diagnosis and hacking simulations. In addition, we have established a response manual covering different types of infringement, which requires the person in charge to report to a manager in the event of any incidents with a CVSS¹⁾ score of 9 or higher. Moreover, to enhance security against online data breaches, we have installed a virtual desktop infrastructure (VDI) that separates our business network from the Internet.

In 2021, we conducted a company-wide security review to minimize security risks. We introduced data backups and APT²⁾ defense solutions to establish a 24h monitoring system to respond to ransomware. In 2022, we plan to acquire information security management certification (ISO 27001) to verify our security using objective indicators, as well as establish an anomaly detection system to prevent external threats and internal data leaks. We monitor and check security equipment logs on a regular basis to prevent information leakage.

1) CVSS: Common Vulnerability Scoring System by Infringements Response Association

2) APT: Advanced Persistent Threat, which refers to security threats based on intelligent and continuous methods such as malware attachments in email, PC pattern detection, and other threats

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Enhancement of Information Protection Awareness

SK specialty disseminates information security management guidelines, information leakage cases, and response procedures to our employees. Our reporting system includes an in-house security center where suspicious cases can be reported. In 2021, we provided company-wide online information security education on cyberattacks, and physical and human security to raise employees' awareness of information protection, and announced security rules that employees must follow through regular security campaigns. In addition, we reviewed levels of security awareness through response training involving mock phishing emails. We will continue to internalize awareness of security by encouraging employee participation in education and training activities.

Key Activity #1

Security Campaign

SK specialty conducted six security campaigns about dos and don'ts to ensure information security in their daily lives. We promoted security rules to be followed when working from home during the COVID-19 pandemic, and guided employees on preventing the leak of personal information and industrial secrets through the provision of information about various types of hacking methods - including phishing/spam and viruses. In addition, we made efforts to internalize security awareness by informing employees about malicious emails and phishing messages that are easy to click on during work. We will continue to implement security campaigns so that employees can easily understand the rules concerning information security.

2021 Security Campaign Themes



Key Activity #2

Mock Phishing Email Response Training

SK specialty conducts simulations of phishing emails to raise awareness about recent increases in email phishing attacks that can result in infection by ransomware and leakage of internal data, including personal information. We used the latest methods of attack, such as COVID-19 guidance text messages, and conducted mock training that dealt with three types of phishing emails. To further promote awareness, we also released the result of the training, including the number of employees who opened malicious emails. We plan to continue these efforts moving forward.

Revision of Security Rules for Employees

In 2021, SK specialty revised our Security Rules for Employees based on five key security areas that employees must comply with. Through periodic revisions, we plan to actively reflect security-related trends in the guidance that we issue.

5 Security Areas

Document Security	<ul style="list-style-type: none"> Prohibit declassification and external leakage of document Re-encrypt after sending documents externally Immediately delete/shred unnecessary documents
Email Security	<ul style="list-style-type: none"> Reconfirm the mail sender, receiver, and CC (carbon copy) Beware of using external e-mail accounts, etc.
Mobile Security	<ul style="list-style-type: none"> Prohibit taking pictures and recording of work-related materials Pay attention to clicking on links included in SMS, etc.
PC Security	<ul style="list-style-type: none"> Periodic change of password and prohibition of sharing Beware of installing unauthorized software and wireless networks Block access to harmful websites, etc.
Daily Security	<ul style="list-style-type: none"> Mandatory wearing of an employee ID card, and prohibition of lending/transferring it to others Prohibit use of personal PCs and external media in workplaces



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Governance

SK specialty strives to achieve transparent and effective governance through board-centered responsible management in accordance with the Corporate Governance Charter enacted in 2022. We operate the Board of Directors (BOD) as the highest decision-making body to faithfully reflect the opinions of shareholders in management. The BOD has the authority to make decisions on key management issues stipulated by the Commercial Act or the Articles of Incorporation, matters delegated by the general meeting of shareholders, and fundamental policies regarding company management and business execution. The BOD also supervises the activities of the company's directors.

[Link to SDGs](#)



Composition of BOD

The BOD of SK specialty consists of one executive director, one outside director, and two non-executive directors. The BOD maintains its independence in accordance with the Commercial Act, with outside directors representing more than one-fourth of the total number of directors. The chairman of the BOD is appointed by a resolution of the BOD. At SK specialty, Lee Young Wook, a non-executive director, serves as the chairman of the BOD.

Members of Board of Directors

CEO/Executive Director Lee, Kyu Won

2021.12~2024.12

- (Current) CEO/Executive Director of SK specialty
- (Current) CEO of SK materials Airplus Co.,Ltd
- (Former) CEO of SK Treechem Co.,Ltd
- (Former) Head of the management division of SK materials

Chairman/Other Non-executive Director Lee, Yong Wook

2021.12~2024.3

- (Current) President of SK Inc. materials
- (Former) CEO of SK materials Co.,Ltd.
- (Former) Director of Investment Center 2, SK Inc.
- (Former) Director of PM2, SK Inc.

Other Non-executive Director Kim, Yang taek

2021.12~2024.12

- (Current) Director of Investment Center for Advanced Material, SK Inc.
- (Former) Director of Investment Center 1, SK Inc.

Outside Director Tak, Yong Suk

2021.12~2024.3

- (Current) Professor, Chemical Engineering of Inha University
- (Current) Vice Chairman of the Korea Electrochemical Society
- (Former) Member of the Executive Committee of the International Energy Agency (IEA) Convention on the Use of Hydrogen

* As of June 2022

BOD Attendance
Rate in 2021 (average)

100%

BOD Committee

For more efficient review of evaluation/remuneration/candidate nomination for directors, SK specialty operates the Human Resources Committee under the BOD. The Committee was established to expand the supervisory role of the BOD and consists of three executive directors and one outside director. The Committee reviews and evaluates the KPIs (Key Performance Indicator) for the CEO once a year to determine CEO remuneration.

Appointment of Directors

Independence and Expertise of Directors

Directors are nominated by the BOD and appointed by resolutions of the general meeting of shareholders. To nominate an outside director, we evaluate the independence of each candidate by considering his or her relationship with the largest shareholder, parent company, subsidiary, and suppliers of SK specialty. Article 17 of the BOD Regulation stipulates the obligation of outside directors to avoid acts that may cause conflicts of interests during their term in office, such as serving on the board of other companies in the same industry. An outside director will be required to resign through a BOD resolution, should any such conflict be found. To ensure diversity, SK specialty prohibits any form of discrimination against gender, race, religion, nationality, and cultural background in the director nomination process.

Expertise of Directors

SK specialty values expertise in various fields when appointing outside directors, particularly focusing on management/economy and chemical industry/engineering backgrounds. Tak Yong Suk, SK specialty's current outside director, obtained his Ph.D. in Chemical Engineering from Iowa State University and currently is the vice president of the Korean Electrochemical Association. He has experience as a member of a working group for the International Energy Agency's Hydrogen Utilization Convention and the International Hydrogen Fuel Cell Partnership. SK specialty appointed him as an outside director in recognition of his expertise in the chemical industry.

By identifying candidates with industrial expertise and global capabilities, we plan to establish a pool of outside directors that possess profound industrial expertise and professionalism, which will be used as a foundation to recommend strong candidates for outside director positions.

Transparency

Governance Charter

In 2022, through a BOD resolution, SK specialty introduced a governance charter outlining our commitments to conducting responsible management and specific practices to establish a strong, transparent governance structure. Based on this charter, we aim to create an advanced governance structure that facilitates shareholder profit, protects stakeholder rights, enhances corporate value, and accelerates sustainable growth.

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BOD Operations

BOD Meetings and Decisions

In 2021, the BOD met 14 times, and 51 agenda items were reviewed and approved.* Especially, by reviewing ESG implementation plans and approving health & safety plans, the BOD helps to realize ESG management. In 2021, BOD discussions concerning ESG increased both quantitatively and qualitatively, covering ESG promotion plans and publication of the Sustainability Report, Net Zero declaration, and reporting on major ESG activities and achievements for the year. In the future, we plan to continue expanding our responsibility for ESG management by improving our disclosure of key issues related to the company's environment, safety & health, employees and local community.

BOD meetings are held once the attendance quorum is met. Further, through a revision of the BOD Regulations, SK specialty has stipulated that regular BOD meetings shall be held once a month. Agenda items shall be adopted when a majority of directors in attendance vote to do so, while the approval of more than two-thirds of the total number of directors will be required for adoption of agenda items concerning 'transactions between a director and the company' and 'prohibition of the use of company opportunities and assets,' as specified in the BOD Regulations.

* Data regarding the number of BOD meetings and agenda items are from data before the split-off merger.

Supporting Activities for Outside Directors

SK specialty's Planning Team supports our outside directors in their decision-making. Before a BOD meeting, the team provides the agenda and relevant documents so that the outside directors can review the contents in advance and gain a better understanding of the contents. Information on other major internal issues is also provided. In 2021, SK specialty's outside directors were given training on systematic changes to the BOD and general shareholders' meeting to enhance their governance expertise.

Evaluation and Remuneration of Directors

Directors are remunerated in accordance with the director remuneration limits approved at the general meeting of shareholders.

The remuneration for executive directors consists of a basic wage and incentives tied to performance evaluations, as well as stock options that encourage them to enhance long-term corporate value. To guarantee the independence of our outside directors, we do not offer any additional incentives other than the basic wage.

Since 2022, a Human Resources Committee has been established to deliberate on the appropriateness of the remuneration of executive directors.

Remuneration of Directors in 2021

(Unit: KRW million)

Classification	Total Remuneration	Average Remuneration per Director
Executive Directors and Other Non-Executive Directors	43.8	43.8
Outside Director	6	6

* A new corporation was established after the split-off merger in December 2021. The 2021 remuneration was calculated only for December 2021.

Audit System

SK specialty appoints a full-time auditor to supervise the activities of the BOD, pursuant to a resolution of the general shareholders' meeting. The auditor participates in BOD meetings, independently supervises the work of directors, and may request the submission of related documents, if necessary. Further, we review their expertise in auditing, including finance, accounting, and risk management. The Accounting Team and Finance Team have been designated as audit supporting teams, and they provide auditors with advice on legal and internal control issues. In 2021, we provided auditors with training on systematic changes to the BOD and general shareholders' meeting to enhance their governance expertise. We also provide an on-line training on our internal accounting management system once a year.



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Risk Management

Market uncertainty and internal/ external risk factors can have a significant impact on business activities. SK specialty prepares a business environment for sustainable growth by identifying and monitoring key risk factors in each financial and non-financial sector.

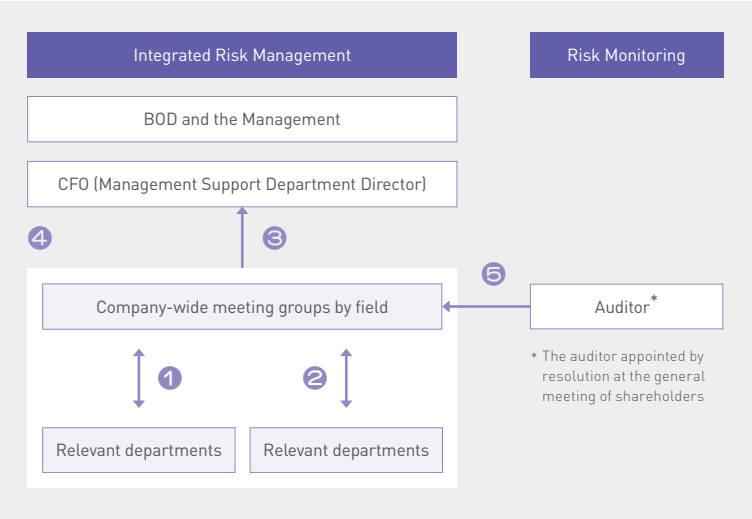
Link to SDGs



Company-wide Risk Management System

SK specialty has established a company-wide risk management system consisting of risk management and response by each department, integrated management by company-wide meeting groups, and supervision by the BOD to preemptively respond to risks that may arise in business operation. The relevant departments conduct risk monitoring to identity risks and analyze their priority. Then, as the means of integrated risk management, the meeting groups under the CEO deal with risk agendas by department and prepare risk response plans. The CFO (current director of the Management Support Department) works as a chief risk management officer to review company-wide risk response plans. The BOD decides on the overall direction of risk management and policy approval and supervises company-wide risk management activities. An auditor, who is appointed by the resolution of general shareholder meeting, independently monitors the adequacy of SK specialty's risk management procedures.

Risk Management Process and Organization



- 1 Risk Identification
 - Identify internal and external situations and risks
- 2 Risk Analysis
 - Assess the likelihood and severity of risk
 - Identify and prioritize key risks
- 3 Risk Reporting to the Management and BOD
 - Report on risk issues and response
 - Approve of risk management direction and policy
- 4 Risk Management and Response
 - Manage major issues and discuss countermeasures by department
 - Conduct risk response activities
- 5 Risk Monitoring
 - Audit of risk management activities

Risk Management Items

For sustainable management, SK specialty continuously monitors and manages ESG-related non-financial risks related to supply chain and climate change, as well as traditional risks such as financial risks.

Classification	Risk Factor	Effect on Business
Finance	Finance	· Exposure to various risks such as foreign exchange risk, market risk, credit risk and liquidity risk due to global business and portfolio expansion
	Investment	· Financial loss and poor cash flow that may occur if performance is bad compared to the investment plan due to changes in the business environment
Business	Supply chain	· Problems in the manufacturing and distribution of goods and rise of costs due to fluctuations in supply and demand, production setback from suppliers, supply chain emergencies, etc.
	Expansion of new business and intensifying competition	· Increased operating costs from support for early settlement of new businesses and price competition due to intensifying competition in existing businesses
	Information security	· Negative effects on manufacturing and logistics processes due to leak of confidential information and data manipulation
	Product responsibility	· Increased legal disputes and costs due to insider information leak and lowered company credibility
	Law and ethics	· Decline in business competitiveness due to deterioration of corporate reputation in the event of chemical accidents or violations of laws
Environment/ Safety	Climate change risk	· Risk of harm to corporate credibility and sustainability due to legal sanctions (fines, enforcement measures, etc.) and social condemnation
	Waste and water	· Short-term or long-term physical damage due to climate change, such as facility damage and destruction, reducing production capacity and decreasing sales
	Disaster and safety	· Increased operating costs due to low-carbon product/technology transition needs
		· Decrease in sales due to production line shutdown in case of water shortage
		· Increased demand for business suspension or reparation due to environmental pollution in the local community
		· Casualties from disasters and safety accidents
		· Increased costs and lower corporate reputation due to non-compliance with relevant legislations

Emerging Risk Response

SK specialty continuously monitors and analyzes emerging potential risks and prepares proactive countermeasures.

Potential Risk	Potential Risk and Business Impact	Countermeasures
Digital Transformation Risk	Development costs may increase due to the development of a new advanced process model using IoT/AR for process efficiency. There is a possibility of the overall system and technical errors due to IT technology errors.	We have laid the necessary foundation for company-wide digital operation risk management by establishing an integrated risk management system and promoting process conversion after sufficient verification through pilot tests.
Unpredictable Geopolitical Risk	Unpredictable changes in the geopolitical environment such as wars, natural disasters, and trade disputes may disrupt the supply chain of raw materials, causing problems of price and supply and demand. This may disrupt the sustainability of SK specialty's business.	We continue to discover raw material suppliers that have competitive price to preemptively respond to changes in raw and subsidiary material prices due to geopolitical risks and strive to stabilize our supply chain. In addition, we strengthen R&D to prepare for potential supply chain risks.

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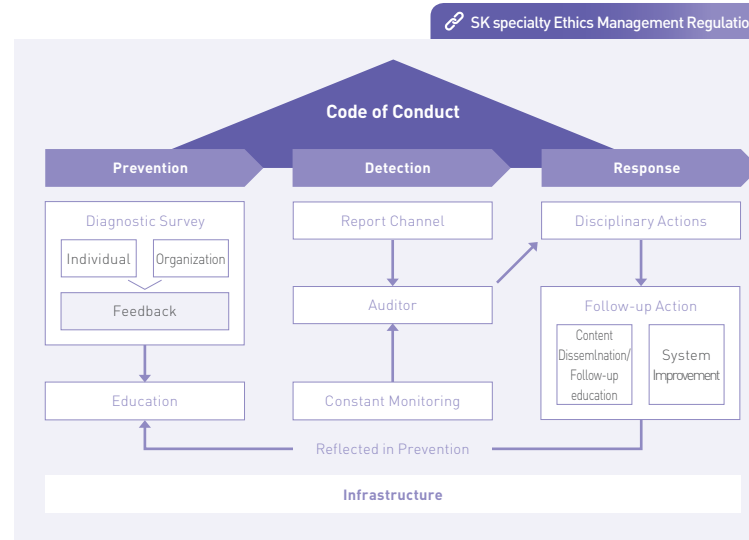
SK specialty recognizes ethical management as one of the priorities for sustainable management of companies. Based on SK Management System (SKMS), we have established the ethical management system across the management activities to maintain the trust and mutual respect with various stakeholders including customers, employees, shareholders, and suppliers. On February 22, 2021, we were officially approved to join the UNGC, expressing our willingness to comply with its 10 principles, including anti-corruption.

[Link to SDGs](#)



Ethical Management Framework

SK specialty regards the Code of Ethics as the basic principle of ethical management, and determines ethical risks through an ethical management process which consists of 'Prevention,' 'Detection,' and 'Response.' For the Code of Ethics, we have enacted Ethical Management Rules and Action Principles for all employees as the basis for decisions and actions in workplaces.



Ethics Management System

SK specialty has established the ethical management system across the management activities to maintain the trust and mutual respect with various stakeholders including customers, employees, shareholders, and suppliers.



Anti-Corruption Compliance Regulations

Classification	Description
Compliance	<ul style="list-style-type: none"> Prohibition of Improper Solicitation and Graft Prohibition of Gifts and Gratuities Prohibition of travel and business trip funding Prohibition of external donations Prohibition of illegal political funding Prohibition of express charge Prevention of conflicts of interest
Mergers and acquisition	<ul style="list-style-type: none"> Preliminary compliance due diligence Establishment of internal control and compliance programs such as employee compliance education, inspection/monitoring, and third-party compliance due diligence after acquisition
Compliance Control	<ul style="list-style-type: none"> Fair and appropriate bookkeeping and record management Obligation to report when violations or potential violations are discovered Support for related departments and respond to their inquiries

Internalization of Employees' Awareness of Ethical Management

Business Ethics Pledge and Compliance Guidelines

SK specialty annually asks the employees to sign a business ethics pledge to raise the awareness of ethical management. The Regulations of Ethics, a detailed compliance guideline for the Code of Ethics, were established as our rule to provide the criteria for decision-making and behavior of employees. All employees are responsible for complying the regulations, and in situations that are not stipulated in the Regulations of Ethics, decisions and actions shall be made based on the decision-making principle of 'Lawful, Transparent and Rational.'

Ethical Education Program

Enhancing Employees' Ethical Awareness

SK specialty provides ethical management education every year to raise the ethical awareness of its employees, while sharing information regarding recent enactment or amendment of relevant laws and regulations. In 2021, we provided practical education regarding basic ethics and anti-corruption topics such as 'Prohibition of entertainment/bribe or workplace bullying' for all employees including contract workers and domestic and overseas subsidiaries. Anti-corruption education is provided under various themes to enhance employees' access and understanding on anti-corruption. In 2021, the ethics education program dealt with anti-corruption cases, and anyone could watch and learn the contents via online education website. We also hold annual ethics management practice workshops to encourage our employees to make the right decisions in any ethical dilemmas.. In workshops, employees set situational ethical issues that their organization may face during the business activity and fully discuss on the solutions and preventive measures to build a consensus on how to improve the organizational culture. In 2021, 59 sub-departments participated in the workshop to discuss topics such as work concentration.

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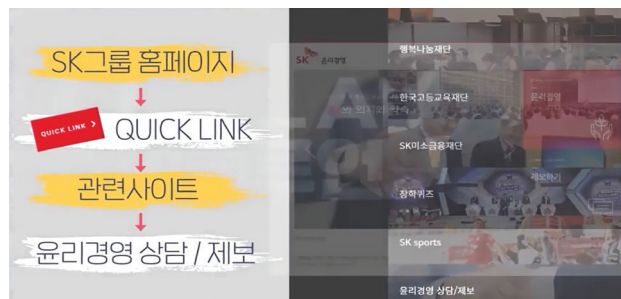
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2021 Ethical Education Program



Enhancing Suppliers' Ethical Awareness



SK specialty aims to raise awareness of ESG and ethical management amongst not only its employees, but also its suppliers. To this end, it provides online anti-corruption training for its suppliers, covering topics such as workplace harassment, compliance with business procedures, and leakage of intellectual property. These topics were selected through a preliminary survey of 17 domestic suppliers. The company plans to expand this ethical management and anti-corruption training to 30 suppliers in 2023, rising to 50 suppliers in 2025.

Ethical Risk Monitoring

Practice Survey for Ethical Management

SK specialty conducts an annual ethical management practice survey to measure employees' awareness of ethical management and to identify vulnerable spots of organizational culture. In 2021, the survey was conducted on employees from domestic and overseas workplaces, 93.1% of employees participated. We have implemented improvement tasks and developed ethical management programs in areas with low scores based on the findings from the survey. The results of survey are reported to executives to encourage promotion of ethical management implementation plan for each organization.

Self-Inspection System for Ethical Management

SK specialty operates a self-inspection system for departments to identify and respond to potential ethical risks. Self-inspection is conducted as an annual risk assessment method, and it evaluates six main risk management areas* from the checklist.

* HR, purchasing, expenses, trade receivables, suppliers, and others

Ethical Management Audit

SK specialty aims to conduct independent and objective audits to increase and enhance the value of its management activities. Through an annual risk assessment, management risks and inappropriate practices are regularly and frequently inspected under independent authority.

SK specialty is also regularly audited from its parent company's independent auditors and evaluated for its overall efficiency, effectiveness, and internal control adequacy of the company's management activities, and the improvement points are identified. The entire audit process is implemented with independence and effectiveness.

Special Terms for Ethical Practice

SK specialty has enacted the Special Terms for Ethical Practice that is applicable to suppliers to spread the culture of ethical management in the supply chain. When signing business contracts with suppliers, we request them to agree to comply with the Special Terms.

Items of Special Terms for Ethical practice

Obligation to Prevent Bribery to Public Officials	<ul style="list-style-type: none"> Compliance with domestic and international anti-bribery and corruption laws and regulations * United Nations Anti-Corruption Convention, FCPA (Foreign Corrupt Practices Act), etc.
Violation Type	<ul style="list-style-type: none"> Unethical conduct related to the provision of benefits Unfair practices, such as rigged bids False entry of important information and intentional omission Management information leakage, etc. Causing property damage through misconduct Forcing and encouraging violations Obstruction of fair business
Sanctions Taken for Violations	<ul style="list-style-type: none"> Cancellation of registration Bidding restrictions Opportunity given to explain the violations

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Ethical Management Reporting and Handling Process

[Go to SK Ethics Management Website](#)

Ethical Management Violation Reporting System

SK specialty operates an ethical management reporting system so that both employees and stakeholders can report unethical behavior. Reports are received and handled privately through the ethical management website (<https://ethics.sk.co.kr>) and e-mail (skmr-ethics@sk.com). The identity of reporters and the contents of their reports are protected in accordance with our Reporter Protection Policy. We also operate a grievance counseling center called 'Harmonia' for our employees. At Harmonia, employees can receive one to one counseling from external experts. During the counseling, if any suspicion of violation is identified, the guidance for ethical regulations and process handling shall be provided to help victims to safely receive any help if needed.

Actions for Violations of Ethical Management

Classification	Number of Cases	Action
Violation of regulations	1	Dismissal

Informant Protection

1. You will not be disadvantaged or discriminated against for making a justifiable report.
2. If you are treated unfavorably following a report, you can request protection from the Ethical Management Department, and the Department will take all measures to prevent any disadvantages.
3. The informer's identity and the content of the report will be kept strictly confidential so that it will not be revealed to the public.
4. In the process of confirming the facts, anyone who cooperates with the investigation by means of statements, materials, etc. is equally protected.
5. Even if you participated in an unethical or illegal act, the penalty for such act will be lessened if you report the violation yourself.

Receiving and Handling Ethical Management Reports

In 2021, a total of seven reports* were received through the ethical management violation reporting system. All the reports went under investigation for the fact checks and for the violations of the Code of Ethics. Once an unethical behavior is confirmed, we hold the Human Resources Committee based on the relevant regulations and discusses on the personnel shift of the perpetrator.

* Including SK specialty's overseas branches

Ethical Management Reporting and Handling Proces

Number of Ethical Management Reports Received¹⁾

Classification	2019	2020	2021 ²⁾	
			No. of Reports	Measurements ³⁾
Ethics/ Anti-corruption	1	1	1	Dismissal(1)
Suppliers	1	1	2	Sanction(1)
HR	4	3	3	-
Other	0	0	1	-
Total	6	5	7	

1) The number of ethical management reports received between 2019 and 2020 is counted based on the surviving company.

2) The number in 2021 is counted based the newly established company and overseas corporations due to the split-off in December 2021.

3) Non-stated details of the measurements correspond to clear of suspicion and minor actions taken.

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Compliance

Given that compliance with laws and regulations is the bedrock of all SK specialty's business activities, risk management is our priority. In 2020, to strengthen our foundation for fair market compliance, we introduced a Fair Trade Compliance Program (CP) and appointed a Fair Trade Compliance Manager.

Introduction of Compliance Management System and Fair Trade Self-Compliance Program

SK specialty's BOD approved the introduction of the CP in February 2020. The program helps us to preemptively respond to laws and regulations related to fair trade, and to systematically fulfill our social responsibility towards a collaborative society. We have also established a fair trade compliance system, appointing a Fair Trade Compliance Manager and implementing CP operating regulations. In June 2020, we were recognized as a CP compliant company, certified by the Fair Trade Commission. With the appointment of the head of the Management Support Department as the CP manager, the compliance management system operates on a continuous basis.

Compliance Activities

To systematically manage compliance risks, SK specialty defines critical compliance risk areas and conducts mitigation activities accordingly. In 2021, we carried out improvement activities for each risk area through a review of subcontracts at SK specialty. We provided employees with training on the revised Labor Standards Act and the Severe Accident Punishment Act, as well as sharing basic knowledge about contracts and the Serious Accident Punishment Act with our suppliers. In 2022, we aim to strengthen our standards of internal management in line with the Occupational Safety and Health Act and the Serious Accident Punishment Act. Moreover, we will expand our provision of compliance training for our employees and partners to further raise awareness of compliance management.

Key Compliance Risk Areas

Accounting/Taxation	Funding	Disclosure	Management of Subsidiaries
Management of Overseas Subsidiaries	Safety, Health and Environment (SHE)	Comply with labor-related laws	Subcontractor/Supplier Trade
Intellectual Property Rights/IP	Ethical Management	Fair Trade	Governance

Fair Trade and Competition

Fair Trade and Competition Principles

SK specialty's Principles of Fair Trade and Competition, as outlined in our ethical management regulations, stipulates that we clearly understand and comply with all laws and regulations concerning fair trade and competition, as well as our CP operating regulations. The CP operating regulations strictly prohibit unfair trade practices by imposing mandatory obligations on employees. Also, to protect the data and intellectual property rights of our suppliers, Article 41 of the basic contract for product transactions (provision of technical data, etc.) stipulates the confidentiality obligations of employees with respect to the confidential data or documents from our suppliers.

Employee Obligations under the CP Operating Regulations

Compliance with Fair Trade	Prohibition against unfair collaborative/common act	Prohibition of unfair trade practices
----------------------------	---	---------------------------------------

Compliance Education

To raise employees' awareness of the CP, we conducted training on fair trade for our employees in November 2021. Additional advanced training was carried out for relevant departments. We also conducted a self-inspection of our subcontractors to monitor their compliance with fair trade laws and confirmed that no violations were found.

Fair-Trade Compliance Education

Subject	Description	Target
Basic compliance education	Precautions and Action Guide for collusion risk management	Employees of relevant departments
Advanced compliance education	Compliance education such as trade secrets, personal information, labor, intellectual property rights, and anti-corruption, based on job characteristics of employees	Manager and hands-on workers of relevant departments
Monopoly Regulation and Fair Trade Act Basic education	Precautions for risk prevention, such as collusion/cartel, unfair transaction, regulations on business combinations	All domestic employees (including subsidiaries)

Fair Trade Self-Compliance

SK specialty has introduced a manual for Fair Trade Self-Compliance, which summarizes the key points, including noteworthy items and cases, of the Fair Trade Act. We are striving to foster a culture of compliance and help employees increase their understanding in this area as we use the Fair Trade Self-Compliance Manual to provide detailed answers to frequently asked questions – including questions concerning transactions with suppliers and affiliates and disclosures mandated by the Fair Trade Commission. In 2022, we plan to further encourage the compliance with the Manual, increase the number of employees trained, and expand the scope of fair trade status reviews.

[Link to SDGs](#)

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Tax

SK specialty is aware of its impact on the local economy, as well as its social responsibility concerning tax payments. We are dedicated to fulfilling our payment obligations by complying with all relevant tax laws and providing social contributions to society.

Tax Management

Compliance with Tax Laws and Tax Risk Management

SK specialty reports and pays our taxes in accordance with the relevant tax laws. Not only do we respond to all requests from the tax authorities, but we also cooperate with tax investigations and transparently disclose data when requested by the authorities. In addition, we are proactively responding to changes in domestic and foreign tax laws by hiring internal tax experts and seeking external advice whenever necessary. We continuously monitor our management and reporting systems and have tax-related control clauses in our internal accounting management system. In 2021, we provided training on our internal accounting management system via a professional auditing firm.

Compliance with Local Tax Policies

We comply with all tax regulations in the countries in which we operate, and we fulfill our payment obligations accordingly. In order to comply with the OECD BEPS* implementation plan and revised tax principles, we monitor the adequacy of transactions between headquarters and overseas corporations, and report to tax authorities every year in accordance with the tax law.

* BEPS: Base Erosion and Profit Shifting

Tax Payment

Effective Tax Rate

Name of Company/ Country (Region)	Unit	2019	2020	2021 ¹⁾	
				January to November	December
Pre-Tax Profits	KRW 100 million	857	754	1,193	78
Corporate Tax Expense	KRW 100 million	186	181	465	19
Tax Adjustment ²⁾	KRW 100 million	164	215	725	4
Effective Tax Rate ³⁾	%	21.7	23.9	39	24
Corporate Tax Burden ⁴⁾	KRW 100 million	183	175	334	16
Tax rate ⁵⁾	%	21.4	23.2	28	21

- 1) A new corporation was established after the split-off in Dec 2021, and thus data from Jan to Nov are separately reported.
- 2) Tax base proposed adjustment amount
- 3) [(Corporate tax costs) / (Pre-tax profit) × 100
- 4) The total tax amount is calculated based on the tax base for the year and therefore is different from the data on 2021 Sustainability Report.
- 5) [(Corporate tax payment) / (Pre-tax profits) × 100

Local and Overseas Worksites¹⁾

[Unit: KRW 100 million]

Name of Company/ Country (Region)	Classification	2019	2020	2021 ³⁾	
				January to November	December
SK specialty	Sales	4,546	5,201	5,606	623
	Operating profits	989	912	1,107	102
	Amount of tax paid ²⁾	183	175	334	16
Subsidiary Happy Companion Co., Ltd.	Sales	5	14	12	1
	Operating profits	1	3	-1	0
	Amount of tax paid	0	0	0	0
China (Zhenjiang)	Sales	320	394	393	42
	Operating profits	-14	-4	-21	-1
	Amount of tax paid	1	0	0	0
China (Xian)	Sales	186	348	538	60
	Operating profits	4	11	7	7
	Amount of tax paid	0	3	2	0
China (Shanghai)	Sales	19	79	97	9
	Operating profits	-1	3	4	0
	Amount of tax paid	0	0	0	0
Japan	Sales	247	76	66	5
	Operating profits	7	8	6	0
	Amount of tax paid	2	3	2	0
Taiwan	Sales	638	270	171	16
	Operating profits	16	16	15	1
	Amount of tax paid	3	4	4	0

- 1) Based on separate financial statements for each corporation
- 2) The amount of tax paid is the total amount of tax based on the relevant tax base. SK specialty's data is based on the calculated tax amount, while other corporations' data is based on operating profit.
- 3) A new corporation was established after the split-off in Dec 2021, and thus data from Jan to Nov are separately reported.

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Financial Statement

2021 Separate Financial Statement

[Unit: KRW]

Classification	2021
Assets	
Current assets	204,904,952,698
Cash and cash equivalents	3,280,881,351
Trade receivables	77,820,846,678
Other current financial assets	4,819,808,346
Inventories	104,759,801,873
Other current assets	14,223,614,450
Non-current assets	849,744,982,847
Long-term financial instrument	2,000,000
Other non-current financial assets	2,522,149,000
Investment shares on subsidiary companies	86,074,250,063
Tangible assets	700,761,988,966
License assets	8,343,513,511
Investment property	16,335,278,703
Intangible assets	7,397,561,628
Deferred income tax assets	21,561,431,282
Net defined benefit assets	6,746,809,694
Total assets	1,054,649,935,545

Classification	2021
Debt	
Current Liabilities	305,109,690,867
Trade payables	11,660,738,355
Short-term debt	110,500,000,000
Current portion of bonds payable	99,961,199,433
Lease liabilities	2,423,864,792
Other current financial liabilities	78,490,312,070
Current corporate tax liabilities	1,363,988,026
Other current liabilities	709,588,191
Non-current liabilities	408,537,930,281
Long-term borrowings	40,000,000,000
Bonds	358,925,015,809
Long-term lease liabilities	6,084,769,567
Other non-current liabilities	3,528,144,905
Total liabilities	713,647,621,148
Equity	
Capital	7,500,000,000
Capital excess of par value	299,856,599,367
Other capital adjustments	27,789,759,821
Earned surplus	5,855,955,209
Total equity	341,002,314,397
Total Liabilities and Shareholders' Equity	1,054,649,935,545

2021 Separate Comprehensive Income Statement

[Unit: KRW]

Classification	2021
Sales	622,894,001,114
Cost of sales	414,366,949,371
Gross profit	208,527,051,743
Selling and Administrative expenses	87,335,570,841
Operating profits	121,191,480,902
Other non-operating income	6,129,276,844
Other non-operating expenses	3,960,857,949
Financial income	24,759,369,062
Finance cost	20,482,001,759
Profit before taxation	127,637,267,100
Corporate tax expenses	27,116,678,641
Net profit	100,520,588,459

* A new corporation was established after the split-off merger in December 2021. The 2021 Statements were reported separately in 2019 and 2020. [p. 64~67]

** Data for January-November 2021 were calculated based on the pre-existing corporation [SK materials Co., Ltd.] and data for December were calculated based on the new corporation [SK specialty Co., Ltd.] and are different from the data in the business report.

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(Unit: KRW)

Classification	2021
Assets	
Current assets	237,898,870,144
Cash and cash equivalents	19,899,841,783
Trade receivables	81,039,767,048
Other current financial assets	5,149,585,193
Inventories	116,598,197,759
Other current assets	15,211,478,361
Non-current assets	850,307,852,354
Long-term financial instrument	2,000,000
Other non-current financial asset	2,527,547,458
Tangible assets	780,875,713,443
License assets	10,278,212,537
Investment property	16,335,278,703
Intangible assets	9,075,749,511
Deferred income tax assets	22,922,452,988
Net defined benefit assets	6,746,809,694
Other non-current assets	1,544,088,020
Total assets	1,088,206,722,498

Classification	2021
Debt	
Current Liabilities	338,324,643,146
Trade payables	13,484,054,886
Short-term debt	137,468,770,348
Current portion of bonds payable	99,961,199,433
Lease liabilities	2,569,066,353
Other current financial liabilities	82,109,536,943
Current corporate tax liabilities	1,627,770,707
Other current liabilities	1,104,244,476
Non-current liabilities	409,193,063,217
Long-term borrowing	40,000,000,000
Bonds	358,925,015,809
Long-term lease liabilities	6,598,082,464
Other non-current liabilities	3,528,144,905
Deferred tax liabilities	141,820,039
Total liabilities	747,517,706,363
Equity	
Equity attributable to Owner of Dominant Firm	340,466,806,896
Capital	7,500,000,000
Capital excess of par value	299,856,599,367
Other capital adjustments	27,328,629,158
Earned surplus	5,781,578,371
Non-controlling interest	222,209,239
Total equity	340,689,016,135
Total Liabilities and Shareholders' Equity	1,088,206,722,498

[2021 Consolidated Comprehensive Income Statement](#)

(Unit: KRW)

Classification	2021
Sales	669,626,874,969
Cost of sales	453,829,929,777
Gross profit	215,796,945,192
Selling and Administrative expenses	93,880,318,706
Operating profits	121,916,626,486
Other non-operating income	5,656,677,374
Other non-operating expenses	4,031,477,670
Financial income	26,258,679,523
Finance cost	22,148,192,608
Profit before taxation	127,652,313,105
Corporate Tax Expense	27,849,161,391
Net profit	99,803,151,714
Owner's Equity of Dominant firm	99,785,227,606
Non-controlling interest	17,924,108

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(Unit: KRW)

Classification	2019	2020
Assets		
Current assets	177,166,171,437	180,513,367,723
Cash and cash equivalents	1,673,547,768	2,405,768,632
Trade receivables	54,073,271,598	57,450,207,808
Other current financial assets	2,860,784,941	3,015,110,072
Other current assets	8,472,199,049	7,911,906,382
Inventories	110,086,368,081	109,730,374,829
Non-current assets	899,367,027,434	943,971,399,792
Profit or loss - Fair value financial assets	10,252,037,983	11,243,222,901
Other comprehensive income – Fair value financial assets	82,042,937	15,422,934,993
Other non-current financial assets	3,614,758,000	4,447,377,100
Investment shares on subsidiary companies	249,267,660,488	300,267,660,488
Tangible assets	614,669,637,686	590,840,928,796
License assets	8,406,054,449	11,941,824,900
Intangible assets	7,272,365,978	8,485,330,105
Net defined benefit assets	5,802,469,913	1,322,120,509
Total assets	1,076,533,198,871	1,124,484,767,515
Debt		
Current Liabilities	318,413,991,839	466,925,105,863
Trade payables	5,673,492,565	5,408,213,018
Other current financial liabilities	72,362,408,076	75,625,852,041
Other current liabilities	11,319,025,147	797,639,200
Short-term debt	119,000,000,000	263,000,000,000

(Unit: KRW)

Classification	2019	2020
Current long-term liabilities		
Current portion of bonds payable	99,967,291,880	109,990,595,736
Current corporate tax liabilities	8,631,026,877	8,919,569,160
Current lease liabilities	1,460,747,294	3,183,236,708
Non-current liabilities	354,119,476,233	360,448,320,735
Other non-current financial liabilities	6,034,120,865	5,096,786,320
Other non-current liabilities	28,801,531	-
Bonds	339,140,888,197	344,133,296,597
Deferred tax liabilities	1,943,474,225	2,514,283,612
Long-term lease liabilities	6,972,191,415	8,703,954,206
Total liabilities	672,533,468,072	827,373,426,598
Equity		
Capital	5,273,836,500	5,273,836,500
Capital excess of par value	60,939,012,730	60,939,012,730
Other capital adjustments	(158,738,846,142)	(287,510,622,406)
Earned surplus (Deficit)	496,525,727,711	518,409,114,093
Total equity	403,999,730,799	297,111,340,917
Total Liabilities and Shareholders' Equity	1,076,533,198,871	1,124,484,767,515

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(Unit: KRW)

Classification	2019	2020
Sales	454,649,037,133	520,072,785,854
Cost of sales	297,316,117,370	356,868,931,699
Gross profit	157,332,919,763	163,203,854,155
Selling and Administrative expenses	58,435,516,468	72,044,483,542
Operating profits	98,897,403,295	91,159,370,613
Other non-operating income	3,310,322,358	3,027,631,405
Other non-operating expenses	3,333,268,579	7,929,959,838
Financial income	7,314,449,128	14,403,359,345
Finance cost	20,443,092,444	25,212,479,421
Profit before taxation	85,745,813,758	75,447,922,104
Corporate Tax Expense	18,589,719,863	18,051,468,545
Net profit	67,156,093,895	57,396,453,559
Other comprehensive income	1,660,358,054	1,014,473,873
Items that are not subsequently reclassified to profit or loss		
Gains on land revaluation	1,666,668,149	-
Remeasurement Elements of the Net-Defined Benefit System	(6,310,095)	1,014,473,873
Total comprehensive income	68,816,451,949	58,410,927,432
Earnings per Share		
Basic and diluted earnings per share	7,078	6,178

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2019-2020 Consolidated Financial Statement

(Unit: KRW)

Classification	2019	2020
Assets		
Current assets	371,426,605,663	437,799,816,983
Cash and cash equivalents	175,199,843,521	242,363,785,379
Short-term financial instrument	39,634,400	38,670,000
Trade receivables	56,744,107,292	61,603,749,939
Other current financial assets	3,035,213,446	2,958,676,447
Other current assets	9,662,039,148	9,987,155,339
Inventories	126,745,767,856	120,847,779,879
Non-current assets	739,954,339,919	723,991,982,153
Profit or loss - Fair value financial assets	10,252,037,983	11,243,222,901
Other comprehensive income – Fair value financial assets	82,042,937	15,422,934,993
Other non-current financial assets	3,620,330,583	4,452,901,422
Other non-current assets	14,318,701,546	4,672,833,658
Tangible assets	692,399,993,680	661,437,035,565
License assets	2,453,278,829	13,648,833,873
Intangible assets	9,237,113,836	10,127,299,379
Deferred income tax assets	1,788,370,612	1,664,799,853
Net defined benefit assets	5,802,469,913	1,322,120,509
Total assets	1,111,380,945,582	1,161,791,799,136
Debt		
Current Liabilities	355,987,233,087	497,578,698,137
Trade payables	7,578,489,481	5,912,398,427
Other current financial liabilities	76,849,772,179	78,115,901,130
Other current liabilities	11,832,886,231	1,234,761,189
Short-term debt	132,768,121,552	275,705,589,216

(Unit: KRW)

Classification	2019	2020
Long-term current debt	17,343,530,820	14,053,225,222
Current portion of bonds payable	99,967,291,880	109,990,595,736
Current corporate tax liabilities	9,027,639,360	9,293,393,701
Current lease liabilities	619,501,584	3,272,833,516
Non-current liabilities	347,842,758,888	360,903,778,161
Other non-current financial liabilities	6,034,120,865	5,096,786,320
Other non-current liabilities	28,801,531	-
Bonds	339,140,888,197	344,133,296,597
Deferred tax liabilities	1,970,423,154	2,527,448,775
Long-term lease liabilities	668,525,141	9,146,246,469
Total liabilities	703,829,991,975	858,482,476,298
Equity		
Equity attributable to Owner of Dominant Firm	407,364,975,366	303,100,074,558
Capital	5,273,836,500	5,273,836,500
Capital excess of par value	60,939,012,730	60,939,012,730
Other capital adjustments	[160,795,090,968]	[289,090,978,532]
Earned surplus (Deficit)	501,947,217,104	525,978,203,860
Non-controlling interest	185,978,241	209,248,280
Total equity	407,550,953,607	303,309,322,838
Total Liabilities and Shareholders' Equity	1,111,380,945,582	1,161,791,799,136

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(Unit: KRW)

Classification	2019	2020
Sales	500,308,450,389	569,177,869,394
Cost of sales	328,935,721,106	395,104,826,829
Gross profit	171,372,729,283	174,073,042,565
Selling and Administrative expenses	69,339,887,046	78,265,517,267
Operating profits	102,032,842,237	95,807,525,298
Other non-operating income	3,320,527,511	2,685,581,041
Other non-operating expenses	3,699,589,935	8,113,615,869
Financial income	7,005,001,262	15,620,308,435
Finance cost	23,276,211,211	27,416,812,443
Profit before taxation	85,382,569,864	78,582,986,462
Corporate Tax Expense	19,643,815,689	18,948,865,674
Net profit	65,738,754,175	59,634,120,788
Owner's Equity of Dominant firm	65,732,913,123	59,608,039,896
Non-controlling interest	5,841,052	26,080,892

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Social Value Performance and Measurement

Classification			2019	2020	2021	Formula
Indirect Economic Contribution Performance	Employment		704.5	767.7	846.7	· Annual total wages of employees (amount of income withheld for wages earned, which is reported to the National Tax Service) · SK specialty had 801 employees in 2021
	Dividend		365.3	358.3	-	· Annual total dividends (dividends declared on statement of changes in equity) · No dividends issued due to SK specialty's de-merger in Dec 2021
	Tax payment		191.1	208.9	359.8	· Total amount of tax paid for the year
	Welfare & benefits		-	-	9.5	· Welfare to improve quality of life of employees, including family event and housing support (new measurement)
Environmental Performance	Resource consumption	Water	-1.1	-1.1	-1.2	① Public water usage 42,598.0 m³ × unit cost of public water 1,545.32 KRW + ② Sewage usage 1,063,299.4 m³ × unit cost of sewage 52.70 KRW
	Environmental pollution	Greenhouse gas	-251.9	-238.4	-271.8	· GHG emissions in the year of measurement 255,623.15 ton* × GHG Eco-cost 106,325.02 KRW * Data collected prior to confirmation of the 2021 GHG emissions statement (255,819 tons declared on GHG emissions statement)
		Air pollution	-0.7	-0.4	-0.5	① NOx emissions 5,680.5 kg × NOx Eco-cost 7,237.43 KRW + ② SOx emissions 553.7 kg × SOx Eco-cost 11,837.99 KRW + ③ Other pollutants (dust, etc.) 700.0 kg × Other pollutants (dust, etc.) Eco-cost (substance-specific emission price applied)
		Water pollution	-0.2	-1.4	-1.5	① COD generation 8,594.48 kg × COD Eco-cost 124.10 KRW + ② T-N generation 4,944.72 kg × T-N Eco-cost 28,230.02 KRW + ③ Other generation 1,165.52 kg × Water pollutants (other) Eco-cost (substance-specific emission price applied)
		Waste	-5.8	-5.6	-4.8	① Amount of waste (general waste-incineration) 304.74 ton × Amount of waste (general waste-incineration) Eco-cost 116,310.86 KRW + ② Amount of waste (general waste-filled in land) 2,529.94 ton × Amount of waste (general waste-filled in land) Eco-cost 166,393.17 KRW + ③ Amount of waste (hazardous waste-incineration) 34.22 ton × Amount of waste (hazardous waste-incineration) Eco-cost 766,238.37 KRW

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Classification			2019	2020	2021	Formula	
Social Performance	Labor	Employment of vulnerable groups		-0.3	1.6	0.1	· Increase in earned income of vulnerable groups = (Earned income of vulnerable groups employed - Income before employment of vulnerable groups) × number of employees exceeding the legal requirement · Number of disabled workers employed by our standard workplace for the disabled [Happy Companion], which was established in August 2019 · Penalty for not meeting the mandatory disabled employment rate: · Disabled employment penalties paid during the temporary recruitment period due to insufficient recruitment flexibility, but we continued our operation of the standard workplace for the disabled from 2022 onwards
		Living quality of employees	Family-friendly system	1.2	2.7	3.7	· Parental leave = Number of months of parental leave 93 months × Average monthly wage of domestic employees KRW 3,831,232 · Paid short-time work = Reduced working hours 138 hours × Average hourly wage of domestic employees KRW 23,105 · Unpaid short-time work = Reduced working hours 692 hours × Minimum wage KRW 8,720 · Other costs (replacement service costs or total input cost) for implementing the Work-Life Balance System
			Education	0.4	0.1	14.0	· Total amount of education-related expenses (mySUNI*, strengthening employees' DT capabilities, job training, support for acquiring qualifications, etc.) * SK Group online training platform launched in 2020
		Safety and health of employees	Prevention of disease	44.9	42.3	36.9	· Cost of supporting disease prevention activities KRW 3.69 billion
			Safety accident damage	-0.0	-0.1	-0.5	· Receipt of industrial accident (employee-related) compensation insurance KRW 47 million
		Mutual growth	Fair trade	Shortening of payment days	4.0	3.4	0.2
	Unfair transaction			-	-	-	① (1st priority) Cost of damage to partners due to unfair transactions ② (2nd priority) Expenses incurred from penalties imposed by the Fair Trade Commission for unfair transactions (penalties, fines, etc.)
	Cooperative partnership		Technical support and protection	-	4.0	2.3	· Benefits received by suppliers through technical support and protection (input for technical support and protection) KRW 230 million
			Management support	15.1	0.7	0.9	· Management support = Input cost or estimated market price (SK Mutual Growth Academy KRW 2 million + Shared Growth Council KRW 20 million + Shared Growth Program KRW 28 million + Summer Rest Space installation KRW 32 million + Hot weather drink support KRW 4 million)
	Social contribution and responsible purchasing		Social contribution purchasing	0.0	0.0	0.2	· Economic contribution to vulnerable producers via procurement from social enterprises = Total procurement x Industry-specific multiplier (manufacturing, communications, etc.) = KRW 190 million · Purchase performance through Happynarae* = Procurement from social enterprises (KRW 10 million) × Industry-specific multiplier (40%) = KRW 4 million * Happynarae (subsidiary distribution platform) Although a social enterprise according to the system, it is known as SK's unique platform for helping other social enterprises
			Health and safety of suppliers	Providing safe working conditions through the management of safety and health of suppliers	0.5	0.9	0.7
	Property and cost to suppliers due to industrial accidents			-	-	-	· Total costs of material damage · Industrial accident insurance money received by suppliers' injured workers (damages incurred as a result of work contracted/ordered by the original principal)
	Good & services	Contribution to supply chain stabilization through development and sales of high purity AHF gas		-	-	48.1	· Formula not disclosed as a matter of business confidentiality (new measurement)

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Classification		2019	2020	2021	Formula
Social Performance	Social contribution activities	0.0	14.0	15.7	· Contribution to social and economic support by Happynarae through profit distribution = Total social performance of Happynarae’s support project (KRW 10.9 billion) × purchasing proportion of Happynarae (0.43%) = KRW 47 million * Measures the contribution of subsidiaries to the performance of Happynarae that supports the social enterprise ecosystem through profit distribution · Myanmar Cook Stove Business KRW 1.525 billion [Job creation for low-income groups KRW 25 million + Savings from firewood usage KRW 702 million + Increase in uptime through decrease in cooking hours KRW 799 million]
	Donation	13.8	18.5	37.2	· Amount of legal/designated donation = Sum of legally recognized amount of donation for the year [SV expenses KRW 1.76 billion + Happiness Sharing donation KRW 360 million + Happy Alliance KRW 60 million + Into the Yeongju Economy KRW 1.54 billion] * Regarded the input as its performance, as the corporate contribution mainly benefits the ultimate beneficiaries
	Voluntary work	0.4	0.3	0.4	· Volunteer hours KRW 39 million [(①)+(②)+(③)] ① Simple voluntary work 1,417.5 hours × 2021 minimum wage in Korea KRW 8,720 ② Pro bono 118 hours × Hourly rate for management consulting KRW 225,000 ③ Talent donation 13 hours × 2021 average hourly wage for employees KRW 15,556
Total		1,081.2	1,176.4	1,095.9	

* Eco-cost: Cost incurred to maintain sustainability through the treatment of hazardous environmental pollutants emitted during human activities, especially during the production, use and disposal of products

** In order to ensure objectivity in the standards and evidence for the monetarization of social value, we 1) only refer to objective data that is recognized by a third party, 2) use proxy variables for the social benefits and costs of the reporting year, 3) update proxy variables on a yearly-basis. For specific proxy variables that are not updated, factors such as the inflation rate are taken into account and a modified proxy is used to reflect its value for the reporting year

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Emissions	305-1	Direct (Scope 1) GHG emissions	15, 19	
	305-2	Energy indirect (Scope 2) GHG emissions	15, 19	

Main Topic

Topic	No.	Title	Page	Remarks
Emissions	305-3	Other indirect (Scope 3) GHG emissions	19	
	305-4	GHG emissions intensity	15, 19	
	305-5	Reduction of GHG emissions	15, 19	
	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	38	
Waste	306-2	Management of significant waste-related impacts	38	
	306-3	Waste generated	37~38	
	306-4	Waste diverted from disposal	37~38	
	306-5	Waste directed to disposal	37~38	
Environmental compliance	307-1	Non-compliance with environmental laws and regulations	36	
Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria	30~31	
	308-2	Negative environmental impacts in the supply chain and actions taken	30~31	
SOCIAL				
Employment	401-1	New employee hires and employee turnover	42	
	401-2	Benefits provided to full-time employee that are not provided to temporary or part-time employees	27~28	
	401-3	Parental leave	28	
Labor-management relations	402-1	Minimum notice period related to operational change	45	
Occupational Health and Safety	403-1	Occupational health and safety management system	24	
	403-2	Hazard identification, risk assessment, and incident investigation	24~25	
	403-3	Occupational health services	27	
	403-4	Worker participation, consultation, and communication on occupational health and safety	27~30	
	403-5	Worker training on occupational health and safety	27~30	
	403-6	Promotion of worker health	27	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	24, 27~28	

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Topic	No.	Title	Page	Remarks
Occupational Health and Safety	403-8	Workers covered by an occupational health and safety management system	24~25, 27	
	403-9	Work-related injuries	25	
	403-10	Work-related ill health	25, 27	
Training and Education	404-1	Average hours of training per year per employee	43	
	404-2	Programs for upgrading employee skills and transition assistance programs	43	
	404-3	Percentage of employees receiving regular performance and career development reviews	44	
Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	42	
	405-2	Ratio of basic salary and remuneration of women to men	44	
Non-Discrimination	406-1	Incidents of discrimination and corrective actions taken	46	
Freedom of Association and Collective Bargaining	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	45	A total of 457 employees of SK specialty have joined its labor union. No operations have been found to seriously infringe on freedom of association and collective bargaining during the reporting period.
Evaluation of Human Rights	412-1	Operations that have been subject to human rights reviews or impact assessments	57	
	412-2	Employee training on human rights policies or procedures	46	
Local Communities	413-1	Operations with local community engagement, impact assessments, and development programs	47~49	
Supplier Social Assessment	414-1	New suppliers that were screened using social criteria	30~31	
	414-2	Negative social impacts in the supply chain and actions taken	30~31	
Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	23	
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Annual report 241	No violations of the law
Marketing and Labeling	417-1	Requirements for product and service information and labeling	75	
	417-2	Incidents of non-compliance concerning product and service information and labeling	Annual report 241	No violations of the law
	417-3	Incidents of non-compliance concerning marketing communications	Annual report 241	No violations of the law
Socioeconomic Compliance	419-1	Non-compliance with laws and regulations in the social and economic area	Annual report 241	No violations of the law

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SASB Index

Sustainability Disclosure Topics & Accounting Metrics

Topic	Category	Code	Metrics	Unit	SK specialty information ¹⁾
Greenhouse Gas Emissions	Quantitative	RT-CH-110a.1	(1) Gross global Scope 1 emissions	tCO ₂ eq	27,768
			(2) Percentage of Scope 1 emission covered under emissions-limiting regulations	%	100%
	Qualitative	RT-CH-110a.2	Scope 1 emission, emission reduction targets, analysis of long-term and short-term strategy or plan against its targets	-	p.14~19
Air Quality	Quantitative	RT-CH-120a.1	(1) NOx emissions (excluding N2O)	Tons	6.1
			(2) SOx emissions	Tons	0.6
			(3) Volatile organic compounds (VOCs)	Tons	Not Applicable
			(4) Hazardous air pollutants	Tons	Not Applicable
Energy management	Quantitative	RT-CH-130a.1	(1) Total energy consumption	TJ	5,303.0
			(2) Total self-generated energy	TJ	0
			(3) Percentage grid electricity	%	89.6%
			(4) Percentage renewable	%	0
Water Resources Management	Quantitative	RT-CH-140a.1	(1) Total water withdrawn	m ³	1,109,700.0
			(2) Total energy consumed	m ³	466,669.0 ²⁾
			(3) Percentage of each in regions with High or Extremely High Baseline Water Stress	%	SK specialty is operating its production plants at Yeongju (Korea) and Zhenjiang (China), where the Water Stress is below 40% (Medium to High).
	Quantitative	RT-CH-140a.2	Number of incidents of non-compliance associated with water quantity permits, standards, and regulations	Cases	0
	Qualitative	RT-CH-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	-	p.37
Hazardous Waste Management	Quantitative	RT-CH-150a.1	(1) Amount of hazardous waste generated	Tons	1,099.0
			(2) Percentage recycled	%	27.1
Community Relations	Qualitative	RT-CH-210a.1	Discussion of engagement processes to manage risks and opportunities associated with community interests	-	p.40, 47
Workforce Health & Safety	Quantitative	RT-CH-320a.1	(1) Total recordable incident rate (TRIR) for direct employees and contract employees	%	SK specialty manages LTIR as its main occupational health and safety metrics. (p.26)
			(2) Fatality rate for direct employees and contract employees	%	No case of fatality has been reported
	Qualitative	RT-CH-320a.2	Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	-	p.27

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Topic	Category	Code	Metrics	Unit	SK specialty information
Product Design for Use-phase Efficiency	Quantitative	RT-CH-410a.1	Revenue from products designed for use-phase resource efficiency	KRW	SK specialty is providing diversified size and type of container and its valve-end-connection to customers. SK specialty seeks to improve the use-phase efficiency by taking order for customized container or valve based on the usage pattern and period of customers.
			(1) Percentage of revenue of products that contain GHS Category 1 and 2 Health and Environmental Hazardous Substances	%	
Safety & Environment Stewardship of Chemicals	Quantitative	RT-CH-410b.1	(2) Percentage of GHS Category 1 and 2 Health and Environmental Hazardous Substances containing products that have undergone a hazard assessment	%	SK specialty does not manufacture any products that are categorized as Category 1 and Category 2 environmental hazardous substance in GHS.
	Qualitative	RT-CH-410b.2	(1) Strategy to manage chemicals of concern	-	
			(2) Strategy to develop alternatives with reduced human and/or environmental impact	-	
Genetically Modified Organisms	Quantitative	RT-CH-410c.1	Percentage of products by revenue that contain genetically modified organisms (GMOs)	%	SK specialty does not manufacture genetically modified organism(GMO) containing products.
Management of the Legal & Regulatory Environment	Qualitative	RT-CH-530a.1	Corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	-	SK specialty is identifying and proactively responding to the risk and opportunities that arise from the changes in environmental- and social-related regulations. Corresponding to this effort, SK specialty is expanding the proportion of renewable energy use by introducing additional RE100 implementation methods such as the Green Premium system and the 3rd party PPA system (p.16-17). SK specialty also seeks to reduce the direct and indirect emission of NF3, which is not included in the domestic GHG targets, but is already designated in international GHG targets and has a significant impact on global warming (p.16).
Operational Safety, Emergency Preparedness & Response	Quantitative	RT-CH-540a.1	Process safety incidents count (PSIC), process safety total incident rate (PSTIR) and process safety incident severity rate (PSISR)	Cases, %	0 (No process safety incidents corresponding to Tier 1 in 2021)
	Quantitative	RT-CH-540a.2	Number of transport incidents	Cases	0

1) Only the quantitative data for domestic worksite is included in above numerical data

2) Calculation of water consumption is based on the Ceres Aqua Gauge definition, excluding water intake and discharge

Activity Metrics

Topic	Category	Code	Metrics	Unit	SK specialty information
Production by reportable segment*	Quantitative	RT-CH-000.A	Speciality gas	Tons	15,463

* Information, corresponding to trade secret, is excluded in Activity Metrics

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UNGC 10 Principles Index

SK specialty supports, complies with, and spreads the four core values and ten principles of United Nations Global Compact (UNGC); human rights, labor, environment and anti-corruption. SK specialty officially joined the UNGC in February 2021 to declare its efforts and commitments to the public. SK specialty reports its activities to comply with the ten principles of UNGC in its Sustainability Report.

Category	Principles	Contents	Page
Human Rights	Principle 1	Business should support and respect the protection of internationally proclaimed human right;	45
	Principle 2	Make sure that they are not complicit in human rights abuses.	45~46
Labor	Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	45
	Principle 4	The elimination of all forms of forced and compulsory labor;	45
	Principle 5	The effective abolition of child labour; and	45
	Principle 6	The elimination of discrimination in respect of employment and occupation.	42, 45~46
Environment	Principle 7	Businesses should support a precautionary approach to environmental challenges;	14~15
	Principle 8	Undertake initiatives to promote greater environmental responsibility;	14~19, 35~40
	Principle 9	Encourage the development and diffusion of environmentally friendly technologies.	8, 20~21
Anti-corruption	Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.	56~59

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UN SDGs Activity

The UN SDGs (UN Sustainable Development Goals) are common goals for the international community adopted at the 70th UN General Assembly and the UN Sustainable Development Summit in 2015. SK specialty identifies goals that are highly relevant to its business area to actively participate in the achievement of the UN SDGs.

UN SDGs	Objective	Key Activities of SK specialty
 <div>End poverty in all its forms everywhere</div>	1.3	· Support for crime victims' laws, medical services, and employment
 <div>End hunger, achieve food security and improved nutrition, and promote sustainable agriculture</div>	2.1 2.2	· 'Warm Contact with One Meal' Project
	3.3	· Support for fire prevention in traditional markets
 <div>Ensure healthy lives and promote well-being for all at all age</div>	3.4	· Prevention program for diseases such as brain and cardiovascular diseases and noise deafness
	3.9	· Emergency Operations Center · Emergency training against environmental accidents
 <div>Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</div>	4.3 4.4 4.b	· Job experience for semiconductor materials · University-Industry cooperation program · Fostering talents in arts and sports
 <div>Achieve gender equality and empower all women and girls</div>	5.1 5.5	· Established human rights violation prevention principles in the Happiness 112 · Female employee workshop
 <div>Ensure availability and sustainable management of water and sanitation for all</div>	6.3 6.6	· Water resource risk analysis and management · Enhancement of in-house management regulations for water pollutants
 <div>Ensure access to affordable, reliable, sustainable and modern energy for all</div>	7.2	· RE100 campaign admission
	7.3	· Increase in power efficiency of electrolysis process · Reduction of fuel consumption such as LNG
	8.3	· Operate Mutual Growth Council
 <div>Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</div>	8.5	· Operate 'Happy Companion,' a standard workplace for disabled
	8.7 8.b	· Establish human rights policy

UN SDGs	Objective	Key Activities of SK specialty
	9.1	· Expanding the entrepreneurship ecosystem and finding young entrepreneurs in Yeongju
 <div>Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation</div>	9.4	· Development of renewable materials such as low-GWP gas
	9.5	· Development of ultra-pure Hydrogen Fluoride
 <div>Make cities and human settlements inclusive, safe, resilient, and sustainable</div>	11.2	· Activities to improve mobility for the transportation vulnerable
 <div>Ensure sustainable consumption and production patterns</div>	12.2 12.4	· Building waste treatment process at Yeongju plant and at suppliers' worksite · Reduction of the use of effluent treatment drug · Introduction of dust compression facility
 <div>Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy</div>	13.2	· Establish a long-term GHG reduction roadmap · RE100 campaign admission
 <div>Conserve and sustainably use the oceans, seas and marine resources for sustainable development</div>	14.2	· Young fish release program at freshwater
 <div>Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all level</div>	16.2	· Establish human rights policy
	16.5	· Establish anti-corruption compliance regulations
 <div>Strengthen the means of implementation and revitalize the global partnership for sustainable development</div>	17.16	· Admission and support for UN Global Compact

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Major Association Membership

Name of Association
Korea Industry & Specialty Gas Association
Korea Chemicals Management Association
Korea RC (Responsible Care) Council
Korea Semiconductor Industry Association
COSAR (Consortium of Semiconductor Advanced Research)
SEMI Association
Korea Display Industry Association
Gyeongbuk Branch of Korea Industrial Safety Association
Daegu Gyeongbuk PSM Safety Management Council
Korea Fire Safety Institute
Fire Administration Advisory Board of Gyeongbuk Fire Service Headquarters
Maekyeong Safety and Environment Institute
Korean Nurses Association
Security Advisory Council of Yeongju Police Station

Greenhouse Gas Assurance Statement

Target of assurance

SK Materials Co.,Ltd. 2021 Greenhouse Gas Emission Energy Usage Specifications

Assurance Standards

Assurance guidelines for operating the GHG emission trading system, guidelines for reporting and certification of GHG trading systems, emission plans distributed to NGMS(National GHGs Management System)

Assurance Procedures

The assurance was conducted on the greenhouse gas emission specification according to the guidelines on the reporting and certification of the GHG emission trading system and the emission plan distributed to NGMS, and the assurance level was performed to satisfy the reasonable assurance level

Assurance Data

Emission by Business site (Unit: tCO2-eq/year)

Business Emission Sector	Head Office	Sejong CRD	Dongtan Research Institute	Ichon Analysis Lab	Ulsan Analysis Lab	Seoul Office	Subtotal
Scope 1	27,728	7	0	0	0	33	27,768
Scope 2	227,692	11	3	0	197	150	228,053
Total	255,419	18	3	0	197	182	255,819

Emission by Greenhouse Gas (Unit: tCO2-eq/year)

Greenhouse Gas	CO2	CH4	N2O	HFCs	PFCs	SF6	Total
Emissions	254,288	49	1,484	0	0	0	255,821

* There is a difference in the amount of emissions and total emissions by greenhouse gas and the sum of the emissions by business site.

Limitations

The assurance is applied with the sampling method in accordance with the assurance plan recognized by the National of Environmental Research for the specification of GHG emission and related data and information provided by SK Materials Co.,Ltd., based on the "Regulated guidelines and emission plans distributed to NGMS." Therefore, there is a limitation to the detection errors that can be caused by sampling limitation.

Opinions

SK Materials Co.,Ltd.'s 2021 GHG emission Specification satisfies the materiality criteria and was prepared using accurate parameters and activity data as a whole. Therefore, it was decided that the greenhouse gas emissions described in the specification were "appropriate" according to the guidelines for reporting and certification of the greenhouse gas trading system.

Comprehensive Opinion

Through the assurance, it is certified that GHG emissions and energy consumption of SK Materials Co.,Ltd. were appropriately collected, prepared and reported in accordance with the guidelines, and that emission facilities were calculated and reported without omission.

March 28,2022
Lim Hae-jong
President of Korea Gas Safety Corporation.



* As a result of the verification received before the change of the mission, the name in the verification form was marked SK Materials Co., Ltd

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Independent Assurance Report on the Identified Sustainability Information in SK specialty's Sustainability Report

To readers of SK specialty Sustainability Report 2021

Introduction

We have undertaken a limited assurance engagement in respect of the selected sustainability information (the 'Identified Sustainability Information') in the SK specialty's Sustainability Report for the year ended 31 December 2021 ('the Sustainability Report') listed below.

Identified Sustainability Information

The Identified Sustainability Information included in the SK specialty's Sustainability Report for the year ended 31 December 2021 is summarized below:

- Global Reporting Initiative (GRI) Standards Index' stated on pages 71-73
- ESG DATA' within the 'ESG FACT BOOK' heading on pages 35-60
- Sustainability Accounting Standards Board (SASB)' heading on pages 74-75

Our assurance was with respect to the year ended 31 December 2021 information only and we have not performed any procedures with respect to earlier periods or any other elements included in the Sustainability Report and, therefore, do not express any conclusion thereon.

Criteria

The criteria used by SK specialty to prepare the Identified Sustainability Information on 'GRI Standards with Core Option' and 'CHEMICALS Sustainability Accounting Standard (SASB)'.

SK specialty's Responsibility for the Identified Sustainability Information

SK specialty is responsible for the preparation of the Identified Sustainability Information in accordance with the Criteria. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of Identified Sustainability Information that is free from material misstatement, whether due to fraud or error.

Inherent Limitations

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability

Our Independence and Quality Control

We have complied with the ethical requirements of the Republic of Korea, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. Our firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Identified Sustainability Information based on the procedures we have performed and the evidence we have obtained. We conducted our limited assurance engagement in

accordance with International Standard on Assurance Engagements 3000 (Revised), Assurance Engagements other than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board. These standards require that we plan and perform this engagement to obtain limited assurance about whether the Identified Sustainability Information is free from material misstatement.

A limited assurance engagement involves assessing the suitability in the circumstances of SK specialty's use of the Criteria as the basis for the preparation of the Identified Sustainability Information, assessing the risks of material misstatement of the Identified Sustainability Information whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the Identified Sustainability Information. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks. Given the circumstances of the engagement, in performing the procedures listed above we:

- Interview with the personnel responsible for internal reporting and data collection regarding SK specialty's Identified Sustainability Information to understand their approaches to managing material issues
- Understand the systems and processes in place for managing and reporting the Identified Sustainability Information of Seoul office and Yeongju head office
- Review documents relevant to output from the risk assessment process, sustainability-related policies and standards, materiality assessment, engagement activities of the stakeholders and others
- Conformity assessment of design and operation of key processes and control activities for managing and reporting sustainability information during the reporting period
- Perform inquiries and analytical reviews on the Identified Sustainability Information

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement. Accordingly, we do not express a reasonable assurance opinion about whether SK specialty's identified Sustainability Information has been prepared, in all material respects, in accordance with the Criteria.

Limited Assurance Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that SK specialty's Identified Sustainability Information the year ended December 31, 2021 is not prepared, in all material respects, in accordance with the Criteria.

Restricted Use

This Report is prepared solely for the management of SK specialty to assist in obtaining understanding of SK specialty's sustainable management performance and activities. Accordingly, we accept no liability or responsibility to any third party, other than SK specialty and its management, who gains access to this report.

June 15, 2022

WITH Accounting Corporation

YoungSuk Lee, Chief Executive Officer

