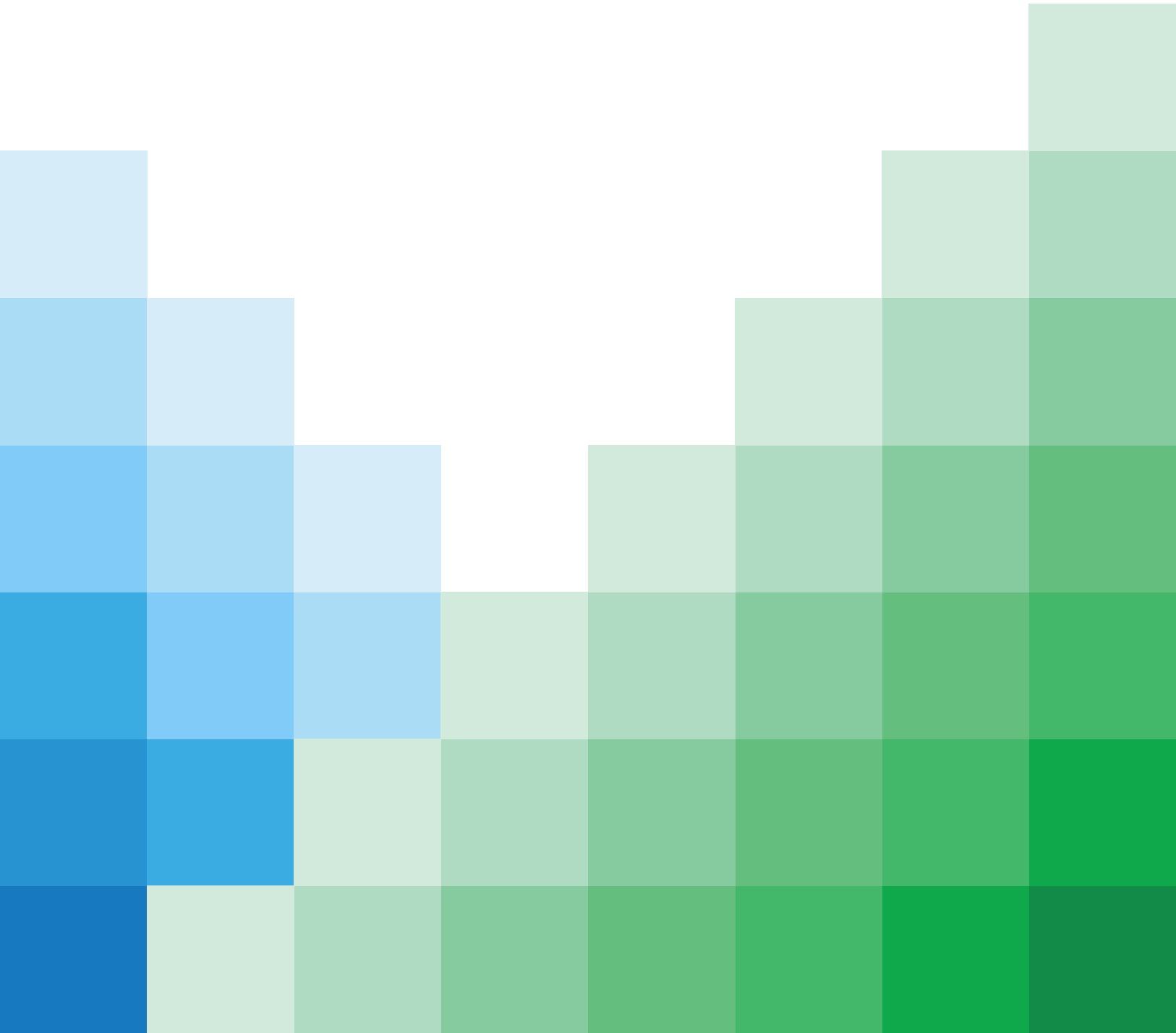


2025 HANSOL GROUP SUSTAINABILITY REPORT



**2025
HANSOL GROUP
SUSTAINABILITY
REPORT**

About this Report

This is Hansol Group's 5th Sustainability Report following its first publication in 2020. The purpose of this Report is to disclose information on the impact of our environmental, social and governance (ESG) activities and sustainability-related activities. Our goal is to actively engage with stakeholders and integrate their feedback into our business management.

Reporting Period

The Report covers the financial and non-financial performance of Hansol Group's key sustainability management activities from Jan.1 to Dec. 31, 2024, while some data reflect activities carried out in the first half of 2025. We included the recent three years of quantitative data from Jan. 1, 2022 to Dec. 31, 2024 to demonstrate changing trends and for consistency of disclosure.

Scope and Boundaries

The scope of this Report includes the sustainability management activities and outcomes of Hansol Group, comprising Hansol Holdings and ten affiliates. Financial data are limited to the consolidated financial statements of Hansol Holdings in accordance with the Korean International Financial Reporting Standards (K-IFRS).

Reporting Principles and Standards

This Report is in accordance with the Global Reporting Initiative (GRI) Standards, the international reporting guidelines for sustainability management, and includes indicators from the Sustainability Accounting Standards Board (SASB) as well as United Nations Sustainable Development Goals (UN SDGs).

Report Assurance

The financial information contained in the report has been verified through an independent accounting audit by EY Han Young Accounting Firm, and the non-financial data have been verified by BSI, an independent, third-party institution, to ensure objectivity and reliability of the contents of this Report.

Inquiries about the Report

For inquiries related to the Report, please contact us using the information below. This Report has been issued on June 25, 2025.

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2025 Sustainability Report, Additional highlights compared to the previous year

1. Enhancement of Double Materiality Assessment and Additional Analysis of Risks/Opportunities

In addition to the previous double materiality assessment, we systematically identified and analyzed potential risks and opportunities for each of the 10 key material issues, approaching sustainability management from a more strategic perspective.

2. Disclosure of ESG performance for Expansion of Information Transparency

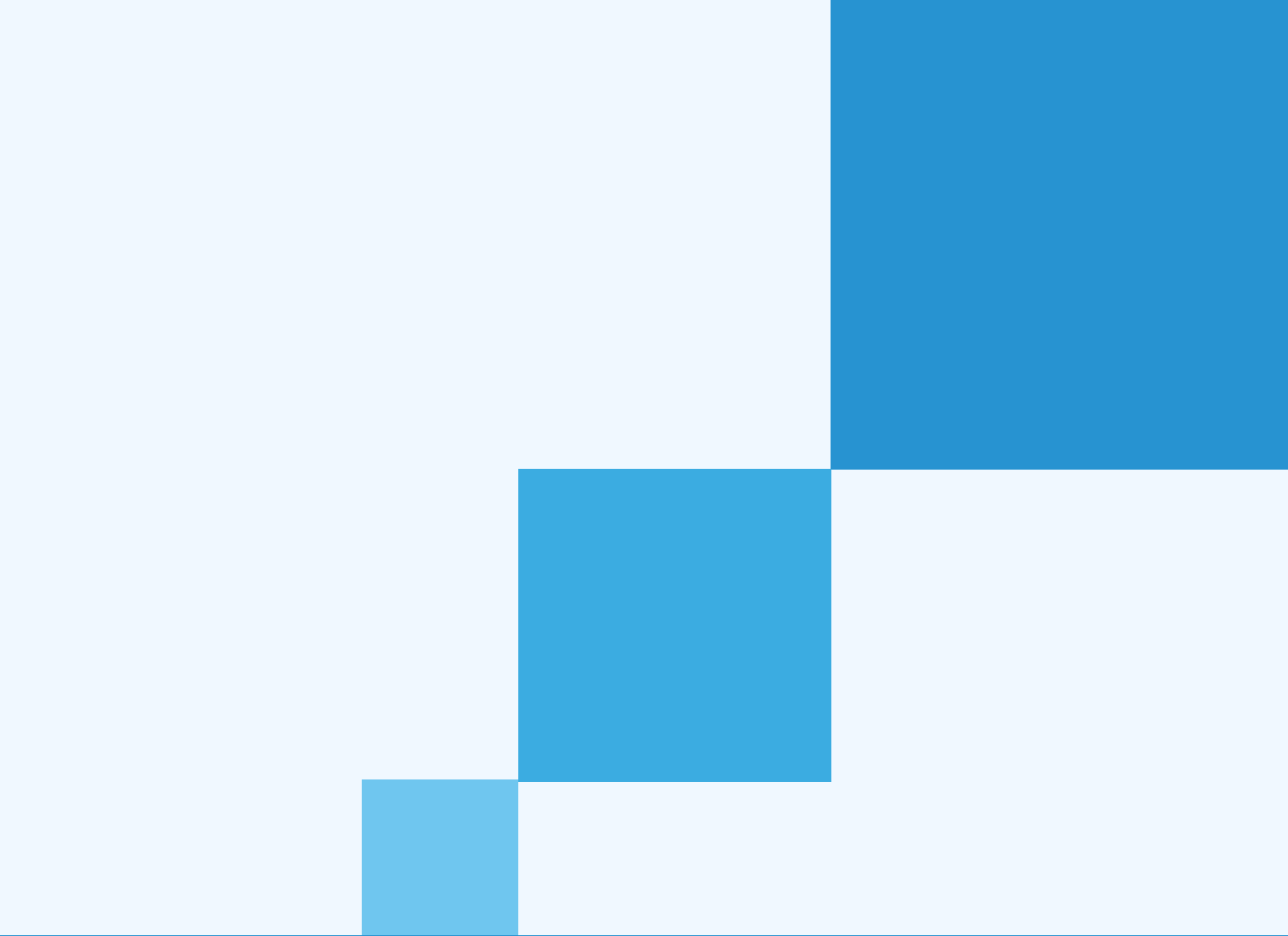
We have further expanded the scope of information disclosure in compliance with international standards and presented the key achievements of each affiliate using specific quantitative indicators.

3. Sharing Hansol Group's Efforts for a Sustainable Society

The report has been reorganized to highlight Hansol Group's achievements and efforts toward a sustainable society. We transparently disclose our core activities and results in the areas of environment, social responsibility, and governance.

1

INTRODUCTION



06	CEO Message
08	Hansol Group at a Glance
10	History
12	Group Business Portfolio

CEO MESSAGE



Dear Respected Stakeholders,

I would like to express my sincere gratitude to all of you
for your unwavering support and encouragement for Hansol Holdings.

The year 2024 was particularly challenging because of the continued global economic recession and uncertainty across industries, further compounded by rising raw material prices and intensified competition. Through these challenging circumstances, Hansol Group also had the opportunity to deeply contemplate what is necessary to achieve "sustainable management."

As Hansol Group celebrates its 60th anniversary this year, we stand at a turning point for new growth. Our Group aims to enhance the competitiveness of our existing businesses while reviewing our business portfolio, and simultaneously continue investing and taking on challenges to discover new growth engines for the future. In addition, we will strengthen the implementation of ESG management to always prioritize customer-oriented values, faithfully fulfill our social responsibilities, and become a trusted company for all stakeholders.

First, we are establishing and implementing an Environmental Management System based on ISO 14001 certification across all group affiliates. Furthermore, through our ESG indicator management system, we systematically manage climate change response activities such as greenhouse gas reduction, energy efficiency, and waste reduction, regularly checking our progress toward goals. We are also creating a foundation for sustainable value creation and future growth by continuously investing in recycling technology and eco-friendly product development to build a resource circulation system.

In particular, we have established a roadmap to achieve greenhouse gas reduction, focusing on our manufacturing affiliates' targets and striving to continuously enhance the sophistication of our environmental management system.

In the social domain, based on our "Human Rights Management Guidelines," we not only provide employees with safe and fair working conditions but also strengthen organizational sustainability while improving job satisfaction through various growth programs. In addition, we maintain international safety and health management system certification (ISO 45001) for our manufacturing sites and are enhancing our industrial safety management by further developing our own Hansol Safety Rating System (HSRS). Moreover, we are operating various programs for mutual growth with our partners, including technical cooperation, education, and patent application support, while leading community development through consistent social contribution activities.

In terms of governance, we are establishing sound corporate governance by implementing principles of checks and balances through a board of directors with independence and expertise and operating an efficient management system. We have strengthened the institutional foundation to enhance transparency in the outside director appointment process through the Outside Director Candidate Recommendation Committee and shareholder recommendation system, enabling minority shareholders' opinions to be reflected. We continue to make substantial efforts to enhance shareholder value by actively implementing shareholder return policies such as treasury stock cancellation and cash dividends.

Dear stakeholders,

Hansol Group will always focus on creating tangible results for a sustainable future and dedicate itself to becoming a company that grows together with all stakeholders, including customers, employees, shareholders, business partners, and local communities.

We ask for your continued interest in and support of Hansol Group's sustainable growth. Thank you.

CEO of Hansol Holdings
Lee Myung-gil

I HANSOL GROUP AT A GLANCE

Hansol Holdings is dedicated to discovering and cultivating new corporate values for the upcoming era. As the holding company of Hansol Group, we aim to identify new roles for the sustainable growth of our affiliates, strengthen competitiveness, and create synergies. In addition, Hansol Holdings achieves sustainable management by promoting Hansol's brand value, diversifying our business portfolio, and optimizing resource allocation. We also demonstrate leadership in recognizing the importance of ESG responsibilities, such as identifying new business opportunities and providing management consulting services to affiliates. Hansol Holdings will continue to develop a business model that gives Hansol Group a competitive edge, and enhance corporate value by leading sustainability management.



Company Information

Date of Establishment

January
1965

ESG Rating

A (Korea Institute of Corporate Governance and Sustainability [KCGSI])

Grade-A for
five consecutive years

A **A** **A** **A** **A** **A**
2020 2021 2022 2023 2024 2025

Key Business Areas

Business consulting,
investment and
asset management,
brand management, etc.

2024 Financial Performance

(As of December 2024,
based on standalone
financial statements)

Total assets

KRW

463.7 billion

Sales

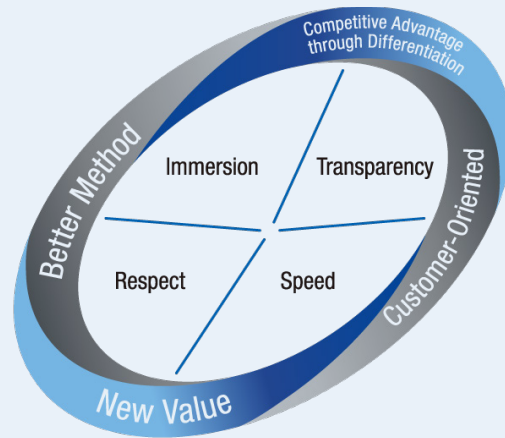
KRW

29.9 billion

Operating Income

KRW

12.9 billion



Our mission

We aim to secure a competitive advantage through differentiation, maximize values, and seek continuous growth together with our customers

Our Principles

- We prioritize our customers
- New values shape the future
- A better method is our philosophy
- Our survival depends on gaining and maintaining a differentiated competitive advantage

Hansol Group

Holding Company

Hansol Holdings

Subsidiaries

Hansol Paper

Hansol PaperTech

Hansol PNS
Paper Distribution

Hansol PNS IT Service

Hansol Technics

Hansol IONES

Hansol Logistics

Hansol HomeDeco

Hansol Inticube

Affiliates

Hansol Chemical

Tapex

Hansol Holdings Shareholding Structure

(As of December 2024)

Hansol Paper

30.49 %

Hansol PaperTech

100 %

Hansol PNS

46.07 %

Hansol Technics

20.26 %

Hansol Logistics

40.04 %

Hansol HomeDeco

23.32 %

Hansol Inticube

34 %

I HISTORY

Since its founding as a paper manufacturer in 1965, Hansol has provided services to customers in various fields such as electrical, electronics, chemicals, logistics, IT, and semiconductors. The past 60 years have been a journey of consistently pushing boundaries and pioneering new ideas for the future. The expertise and experience gained throughout the journey are key to our unwavering commitment to becoming a global company with unparalleled competitiveness and expertise based on innovation and adaptation to new surroundings.

1965

- Establishment of Saehan Paper
- Samsung Group's acquisition of Saehan Paper

1968

- Saehan Paper was renamed as Jeonju Paper

1972

- Became the first Samsung Group affiliate to be listed on the Korea Stock Exchange

1979

- Established the industry's first paper research center

1981

- Achieved 1 million tons of paper production for the first time in Korea

1982

- Reached 10,000ha of forestry for the first time in its industry

1987

- Developed thermal paper for the first time in Korea

1991

- Separated from Samsung Group and became independent
- Founding of Hansol HomeDeco

1992

- Founding of Hansol Chemicals
- Completed construction of Hansol Paper Janghang Plant

1995

- Founding of Hansol Cultural Establishment
- Completed construction of Hansol Paper Daejeon Plant
- Completed construction of Hansol HomeDeco Iksan Plant
- Founding of Hansol Technics, Hansol Telecom (currently named Hansol PNS)
- Hansol Development developed Oak Valley, the largest resort in Korea

1996

- Completed construction of Hansol Technics Jincheon Plant
- Hansol HomeDeco entered New Zealand's forestry business

1997

- Hansol HomeDeco launched laminated flooring Chammaru



1960



1970



1980



1990

2000

- Hansol Logistics launched its global logistics platform business
- Hansol Paper declared its vision to become the best paper manufacturer in Asia

2001

- Hansol Logistics developed the world's first smart delivery system

2002

- Hansol Group appointed Cho Dong-gil as the Chairman

2005

- Vision declaration ceremony in celebration of the Group's 40th anniversary

2007

- Hansol Paper obtained the Forest Stewardship Council (FSC) certification

2008

- Hansol PNS acquired Hansol Inticube

2009

- Hansol Paper became the 4th largest printing paper manufacturer in Asia

2011

- Acquisition of Hansol PaperTech

2012

- Establishment of Hansol Chemical's overseas branch office in China (Hansong Electronics)

2013

- Opened Museum SAN

2014

- Hansol Chemical became the world's first mass producer of QD

2015

- Hansol Group launched its holding company structure and established Hansol Holdings
- Introduced the HMS
- Hansol Technics entered the electronics manufacturing services (EMS) business

2016

- Hansol Chemical acquired Tapex

2019

- Hansol HomeDeco launched a branch office in Vietnam

2020

- Launched Hansol V Frontier

2021

- Hansol Logistics acquired Eastern Logistics
- Hansol PNS acquired Coever I&T
- Hansol Inticube acquired Stickus Corporation

2022

- Hansol Paper acquired SungwooEnvi Tech
- Hansol Paper issued ESG bonds
- Hansol Technics acquired IONES
- Hansol Logistics acquired Moonlogis

2023

- Hansol Group designated as a corporate group subject to public disclosure

2024

- Hansol Technics wins "Japan Disaster Prevention Industry Exhibition 2024" for the first time as a foreign company
- Hansol Paper signs business agreement to establish a resource circulation system for sterilized cartons
- Hansol Holdings expands its stake in Hansol Logistics

**2000****2010****2020****2025**

GROUP BUSINESS PORTFOLIO

Hansol Group's Value Creation Process

Hansol Group pursues innovation throughout the entire value chain, from raw material development and advanced manufacturing to distribution, logistics, IT, and solutions, thereby delivering new value to customers and the market.



Hansol Paper

Hansol Paper is the largest and only comprehensive paper company in Korea that has contributed to the country's cultural and national development since its foundation in 1965. The company produces printing paper, industrial paper, special purpose paper, thermal paper, and different types of paper at four base plants in Janghang, Daejeon, Cheonan, and Shintanjin, respectively, and elevates brand value through continuous research and development and excellent customer service. In 2015, Hansol Paper executed a corporate spin-off, separating its investment and business functions into Hansol Holdings and Hansol Paper, respectively, to strengthen business specialization and establish a transparent governance structure. By focusing on high-value-added and technology-intensive advanced paper materials, the company continues to expand its global network and solidify its presence as a global paper manufacturer. In addition, through its merger with Hansol EME, Hansol Paper has laid the foundation for business diversification in resource circulation and eco-friendly initiatives, thereby reinforcing its strategic direction toward sustainable development.

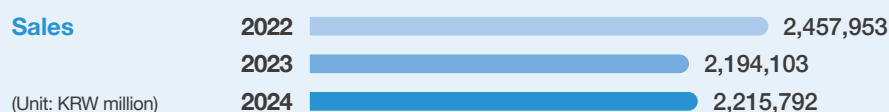
| Date of Establishment January 2015

| Headquarters 100 Eulji-ro, Jung-gu, Seoul, Republic of Korea 23 ~ 24/F, Pine Avenue Building B

| Business Areas Printing paper, industrial paper, thermal paper, special paper, pansy, new materials, environmental business, food packaging business

| Credit Rating A(NICE Investors Service, same as below)

| ESG Rating A(E: A, S: A+, G: A) *Credit Rating and ESG Rating based on 2024



* Based on consolidated financial statements.

Hansol Papertech

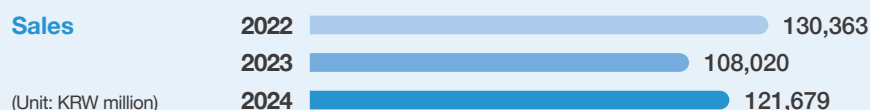
Hansol PaperTech, a leading manufacturer of corrugated cardboards, is gaining competitiveness in both domestic and overseas markets and is aiming to generate stable sales by expanding to global markets, such as Southeast Asia and China. The company manufactures and exports all types of corrugated paper, including surface, scrap, and fluting papers. Corrugated cardboard has exceptional shock-absorbing qualities that keep products safe from external shocks. Consequently, it is extensively used to produce boxes for industrial and agricultural goods, including parcels, electronic items, and general industrial packaging. Hansol PaperTech aims to maintain stable material supply and sales based on sustainable partnerships and remain dedicated to realizing customer satisfaction as a high-quality corrugated product manufacturer. It will continue to enhance its global competitiveness through consistent growth and quality improvement.

| Date of Establishment February 2000

| Headquarters 80 Daechi 7-gil, Daejeon-myeon, Damyang-gun, Jeollanam-do, Republic of Korea

| Business Areas Production of corrugated paper such as surface paper, backside paper, corrugated cardboard, etc

| Credit Rating BBB+



* Based on consolidated financial statements.

Hansol PNS

Hansol PNS (Packaging and Solution), the largest paper distribution company in Korea and a provider of IT services, is strengthening its competitiveness as an industry leader through continuous innovation and capability enhancement. As a comprehensive paper distribution merchant, the company generates stable profits by responding proactively to market changes. In the IT services sector, Hansol PNS is responsible for the design of customized enterprise information systems, as well as hardware and software development and solution provision. Based on optimized IT solutions and smart factory technologies tailored to various industries, the company supports the digital transformation of medium and small enterprises. Furthermore, by leveraging its accumulated knowledge and experience, Hansol PNS continues to invest in R&D and collaborate with IT firms. By providing comprehensive IT services—including system development, outsourcing, and maintenance—for the Group and external clients, it enhances competitiveness through solutions optimized for each client's business environment.

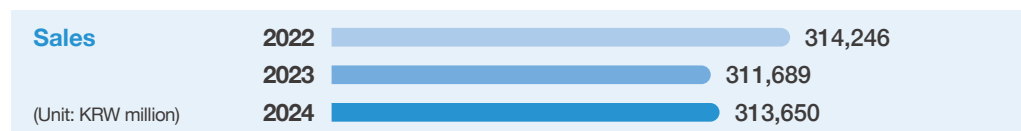
| **Date of Establishment** February 1975

| **Headquarters** 5/F, Ilheung Building, 213 Toegye-ro, Jung-gu, Seoul

| **Business Areas** Paper distribution, IT services

| **Credit Rating** A3

| **ESG Rating** B+(E: B, S: B, G: A)



* Based on consolidated financial statements.

Hansol Technics

Under its management philosophy, which emphasizes talent, technology, and a future-oriented approach, Hansol Technics operates across the electrical and electronics sector. This includes the Power Module Device (PMD) business, manufacturing TV and home appliance power boards, and mobile phone wireless charging modules. Hansol Technics also excels in the automotive electronic component business, producing LED control modules and E-shifter modules for vehicles, in addition to its mobile phone consignment and solar module manufacturing businesses. Through the continuous development and successful commercialization of new ventures, Hansol Technics further strengthens the competitiveness of both its core and growth businesses. This commitment enables the company to play a crucial role in Korea's key export industries. Furthermore, by systematically implementing ESG management and actively supporting the growth and collaboration of small and medium-sized enterprises, Hansol Technics diligently fulfills its role as a socially responsible company. Moving forward, Hansol Technics will continue to achieve sustainable growth in the electronic components, automotive electronic components, and energy solution industries through innovative technology development and differentiated products.

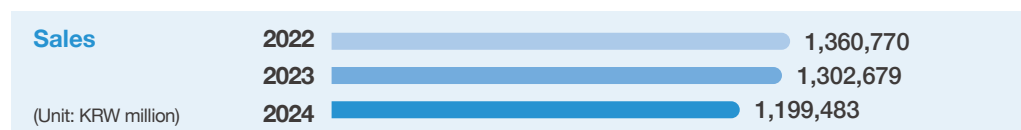
| **Date of Establishment** April 1995

| **Headquarters** 5/F, Pine Avenue Building B, 100 Euljiro, Jung-gu, Seoul, Republic of Korea

| **Business Areas** Electric · electronic product power modules, wireless charging modules, solar power generation modules, LED material processing, mobile phone components and EMS

| **Credit Rating** AAA+ (eCredible)

| **ESG Rating** B+



* Based on consolidated financial statements.

Hansol IONES

Hansol IONES is a global semiconductor component specialist that provides a one-stop service encompassing the entire process from design, processing, measurement, cleaning, coating, and analysis of ultra-precision special components in the semiconductor and display industries. With industry-leading top-tier technology and quality, Hansol IONES supplies precision components to top-tier global semiconductor equipment and comprehensive semiconductor companies, continuously proving its differentiated competitiveness. Hansol IONES considers co-growth with customers as a core value and contributes to the development of the semiconductor industry by focusing on future-oriented innovations such as new material development, nano-coating, and surface treatment technologies. The company plans to further strengthen its position in the global market based on continuous innovation and a spirit of challenge.

 Date of Establishment	March 1993 (Formerly Dong-A Engineering)
 Headquarters	2061 Anseong-daero, Gosam-myeon, Anseong-si, Gyeonggi-do, Republic of Korea
 Business Areas	Precision processing, cleaning, and coating of products across the entire semiconductor process and display manufacturing equipment and parts
 Credit Rating	A-(NICE D&B)
 ESG Rating	B+ (E: B/S: B+/G: B+)

Sales	2022	163,912
	2023	123,933
(Unit: KRW million)	2024	157,138

* Based on consolidated financial statements.

Hansol Logistics

Established in 1994, Hansol Logistics is a comprehensive logistics specialist that provides the best-in-class SCM solutions to customers across various logistics areas, including global logistics services encompassing ocean and air forwarding, container, truck, and rail transportation, W&D (warehousing and distribution), and logistics consulting, all based on industry-specific customized operational know-how and systematic systems. Through this, Hansol Logistics realizes customer satisfaction while practicing ESG management, including creating a safe workplace, ethical management, and enhancing shareholder value. With experience and expertise honed in the South Korean market, Hansol Logistics has established a robust international presence, boasting over 20 networks across 7 countries, including the Americas and Asia, to deliver distinctive global integrated logistics services. By further expanding its network into global markets such as China, India, Southeast Asia, Americas, and Europe, Hansol Logistics is solidifying its position as a leading global professional logistics company and continuously advancing as a specialized logistics leader in the industry.

 Date of Establishment	June 1994
 Headquarters	22/F, Pine Avenue Building B, 100 Eulji-ro, Jung-gu, Seoul, Republic of Korea
 Business Areas	International logistics, container transport, truck transport, W&D, logistics consulting
 Credit Rating	A3
 ESG Rating	B+

Sales	2022	1,015,372
	2023	726,537
(Unit: KRW million)	2024	687,031

* Based on consolidated financial statements.

Hansol HomeDeco

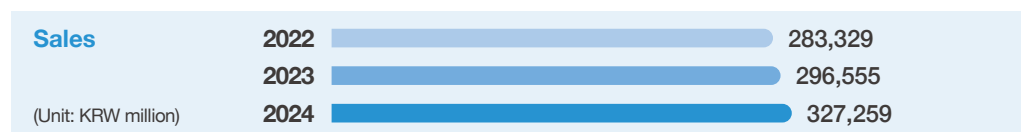
As an interior material specialist, Hansol HomeDeco provides products of world-class quality and design across the entire spectrum of building materials. The company has established a value chain in the wood industry, spanning from overseas afforestation to lumber, furniture components, flooring, wall coverings, and manufacturing and distribution of interior materials. Furthermore, Hansol HomeDeco has laid the groundwork for sustainable growth by expanding into eco-friendly energy businesses, including wood flour and renewable energy. Through this, the company is strengthening the recycling of forest resources and the wood resource circulation system. Hansol HomeDeco also focuses on developing eco-friendly products utilizing MDF and lumber by-products. Notably, the company introduced the world's first "Hansol Recycle MDF" made using 100% recycled raw materials, leading innovation in the eco-friendly building materials market.

| **Date of Establishment** December 1991

| **Headquarters** 27/F, Jeonmun Geonseol Hoegwan, 15 Boramae 5-gil, Dongjak-gu, Seoul, Republic of Korea

| **Business Areas** Wood: Production and distribution of boards (MDF), flooring, and interior products / Combined Heat & Power Generation: Biomass renewable energy (electricity and steam generation) / Afforestation: Investment in overseas afforestation products through a New Zealand corporation

| **Credit Rating** BBB | **ESG Rating** B+ (E: B+, S: B, G: B+)



* Based on consolidated financial statements.

Hansol Inticube

Hansol Inticube is a leading company that provides services ranging from the establishment and maintenance of domestic contact centers to operation, diagnosis, and consulting. The company is also a leader in business communication solutions through next-generation AI contact centers. By utilizing core technologies of the Fourth Industrial Revolution, such as AI, cloud, and big data, it showcases next-generation technologies like virtual consultation and cloud services, providing a total communication experience. Based on its extensive experience in building various digital contact centers, Hansol Inticube offers integrated solutions, from consulting on optimal infrastructure construction to maintenance for its customers. The company has launched ISAC-AI, an artificial intelligence (AI) communication platform, making it easy for small and medium-sized enterprises to adopt AI consultation services. Through this, Hansol Inticube aims to contribute to the digital innovation of the entire business ecosystem and grow together with its partners.

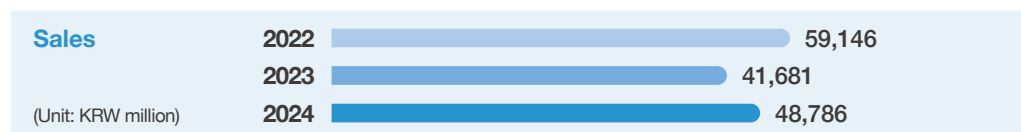
| **Date of Establishment** December 2003

| **Headquarters** 14/F, Nuri Dream Square Business Tower, 396 Worldcupbuk-ro, Mapo-gu, Seoul, Republic of Korea

| **Business Areas** Digital contact center, AI communication, communication cloud, and mobile solution

| **Credit Rating** BB-

| **ESG Rating** B+



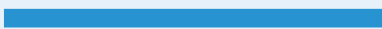
* Based on consolidated financial statements.

Hansol

Chemical

Established in 1980, Hansol Chemical is an advanced fine chemical company that has led the market by producing excellent chemical products through continuous innovation. It possesses large-scale production facilities in Jeonju, Ulsan, and Xi'an, China, and has secured a broad business portfolio ranging from fine chemicals to electronic materials. In particular, the company has strengthened its competitiveness centered on materials for semiconductors, advanced displays, and secondary batteries, and aims to achieve continuous growth by expanding its business into new markets such as the IT and environmental sectors. Hansol Chemical is actively implementing its ESG management strategy and striving to maximize its competitiveness in the global market and continue its sustainable growth.

Date of Establishment	March 1980
Headquarters	7~8/F, K-Tower, 513 Teheran-ro, Gangnam-gu, Seoul, Republic of Korea
Business Areas	Fine chemicals, display materials, semiconductor materials, and secondary battery materials
Credit Rating	A+ (Korea Investors Service, Korea Ratings Corporation, NICE Credit Rating)
ESG Rating	A

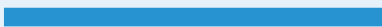
Sales	2022		885,471
	2023		771,655
(Unit: KRW million)	2024		776,357

* Based on consolidated financial statements.

Tapex

Established in 1994, Tapex is a specialized industrial tape company that has grown continuously in various fields, ranging from functional tapes for electronic materials, such as secondary batteries, displays, and semiconductors, to food packaging wraps and eco-friendly products. In particular, aligning with global environmental policy changes, Tapex has focused its business capabilities on the functional tape sector for eco-friendly electric vehicles, establishing itself as a leading company in the industry. For sustainable management, Tapex prioritizes customer satisfaction and continuously upgrades its R&D and production infrastructure to achieve global-level quality competitiveness. Furthermore, the company is accelerating the improvement of its management system to meet ESG management standards. These efforts will serve as a core foundation supporting Tapex's sustainable growth, not only in the domestic market, but also in the global market.

Date of Establishment	April 1994
Headquarters	812 & 813, 8/F, Daehak 4-ro, Yeongtong-gu (Ace Gwanggyo Tower 1, Iui-dong), Suwon, Gyeonggi-do, Republic of Korea
Business Areas	Functional tapes for electronic materials, food packaging wrap, consumer goods
Credit Rating	A- (Korea Investors Service, 2022)
ESG Rating	B+

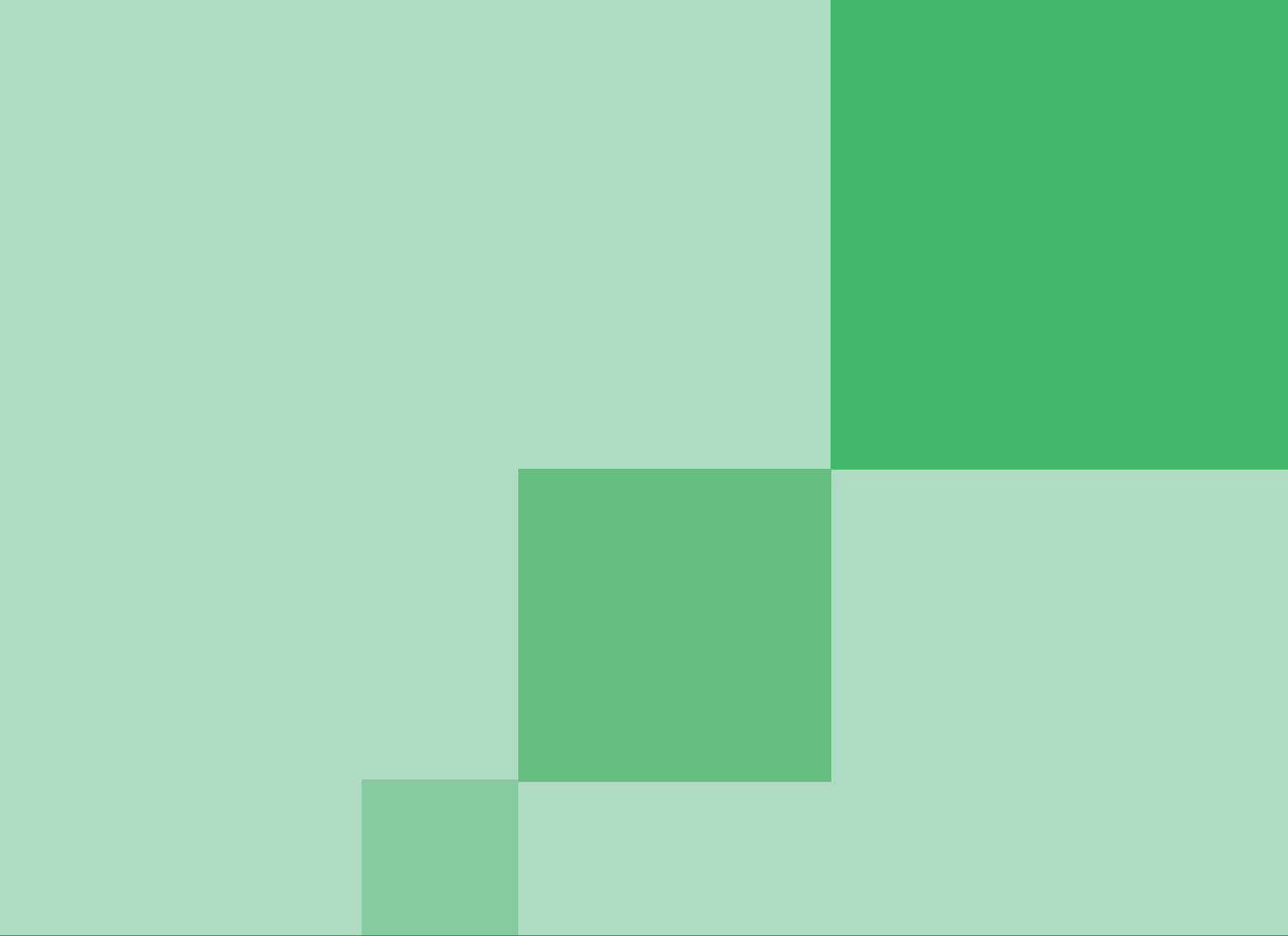
Sales	2022		182,261
	2023		145,840
(Unit: KRW million)	2024		135,955

* Based on consolidated financial statements.

2

ESG PERSPECTIVE

Hansol's new values create a better future for its customers. Hansol Group has taken the lead in developing eco-friendly products and expanding eco-friendly product certifications, while continuously striving to fulfill its social responsibilities and promote shared growth with stakeholders. In addition, the Group aims to establish itself as a trusted company through transparent and advanced governance and systematic risk management.



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22	2024 ESG Highlights
24	Sustainability Management System
30	Stakeholder Communication Channels
31	Double Materiality Assessment

I 2024 ESG PERFORMANCE

Hansol Group builds trust with customers, enhances corporate value, and achieves sustainable growth by practicing ESG management across all affiliates. The Group's innovation can be seen through ESG performance indicators such as greenhouse gas reduction, resource circulation, and strengthened governance.

Hansol Group

Hansol
Dreamverse Company

290 university
student participants



Hansol Group

Extension of the Notice Period for
Convening the Board of Directors

7 Days prior
to the meeting



Hansol Group

Participated in the Operation of the
Group ESG Working Council

A total of **7** affiliates



Hansol Group

Attracted Investment for Startups that
Participated in Hansol V-Frontiers

KRW **27** billion



Hansol Paper

Ranked No.1 in the Paper Industry for
Korea's Most Respected Company Ranking

22 consecutive years



Hansol PaperTech

Awarded for the "Happiness-Plus
Social Contribution Campaign"

**Minister of
Environment Prize**



Hansol Chemical

Korea Industrial
Technology Grand Prize

**Ministry of Trade,
Industry and Energy**



Hansol Chemical

Recognized by the Jeonbuk
Regional Environmental Office as an

**Excellent Workplace for
Chemical Management**



Hansol Technics

Non-Financial Risk
Board Report Cases

Total **4**



Hansol IONES

Human Rights-related Cases Reported
from Internal and External Stakeholders

Total **0**



Hansol HomeDeco

For Contribution to Exemplary
Labor-Management Culture

Received Award



Hansol HomeDeco

At Fire Safety Drill Competition
for Building Officials

Won Grand Prize



Hansol HomeDeco

Recycled Raw Material Usage Rate
for MDF Production

100%



Tapex

Implementation of Process
Safety Management (PSM)

Grade S



Tapex

Eco-friendly PO Wrap Contributing to
Reduced Plastic Waste Generation

5.52 tons



Tapex

Campaign to Recycle Discarded Home Appliances and
Electronic Products to Reduce Carbon Emissions

4,949 kgCO₂eq



2024 ESG HIGHLIGHTS

1.



Hansol Holdings received an integrated A grade in the KCGS ESG evaluation for five consecutive years

Hansol Holdings has been recognized as a leading example of sustainable management in the industry, receiving an integrated A grade in the 2024 KCGS ESG evaluation for the fifth consecutive year. This achievement is the result of the company's continued efforts to strengthen ESG management, including the establishment of a mid to long-term shareholder return policy to ensure a stable and predictable dividend policy, and the implementation of a group-level risk management system. Hansol Holdings has built a framework aligned with the best practices in environmental, social, and governance (ESG) standards, minimizing the potential for shareholder value deterioration caused by non-financial risks. Among the 794 companies listed on the KOSPI in 2024, only 190 (20.5%) received an A grade.

2.



HomeDeco Selected as a “2024 Korea Green Product of the Year”

Hansol HomeDeco has been honored with the most awards among interior material companies by having a total of five of its products—Easy Self, Storyboard, Skinmaru, Art Eco Blind, and Wellstone—selected in the “2024 Korea Green Product of the Year” hosted by the Korea Green Purchasing Network. Each product received high evaluations for its combination of environmental friendliness and functionality. In particular, Easy Self was recognized for its safety due to the use of PP material, which does not expose environmental hormones and does not generate harmful gases in the event of a fire. Storyboard enhanced sustainability by utilizing recycled raw materials and eco-friendly surface materials. Hansol HomeDeco will continue to launch environmentally friendly products and implement sustainable management practices.

3.



Hansol PNS Receives GS Certification Grade 1 for Facility Management System

Hansol PNS's facility management system, l'MFACTO PAM, has further strengthened the reliability of its solution by acquiring GS Certification Grade 1, a software quality certification. l'MFACTO PAM is a system developed based on over 20 years of experience in manufacturing facility maintenance. It maximizes the efficiency of facility management by applying the latest technologies, such as improved user convenience through dashboards and multi-device linking, integrated facility management utilizing seven core modules linked with Internet of Things (IoT) sensors, and the introduction of AI-based anomaly detection and chatbots. Hansol PNS has further enhanced the credibility of its solutions by obtaining the highest grade (Grade 1) GS certification for the second time, following the certification of its Environment Safety Health (ESH) management solution last October. Hansol PNS will continue to support cost reduction and efficiency improvement at manufacturing sites and contribute to the advancement of industrial safety and health management.

4.



Hansol PaperTech Awarded the Minister of Environment Prize at the 2025 “Happiness Plus Social Contribution”

Hansol PaperTech was recognized for its ESG practices centered on the local community by receiving the Minister of Environment Prize in the Environmental Love Contribution category at the “2025 Happiness Plus Social Contribution Campaign.” Hansol PaperTech has been carrying out initiatives, such as providing scholarships and experiential learning support for local elementary schools, participating in the hometown love donation system, and conducting agricultural product consumption campaigns with Damyang-gun. It has also consistently conducted community-based social contribution activities, such as traditional market sharing events, donation of fire extinguishers, and fire prevention education for villages. In addition, it practices coexistence with residents and pursues the improvement of the living environment through regular environmental cleanup activities in rivers, farm roads, and village alleys near the factory. Hansol PaperTech plans to further expand sustainable social contribution activities based on its mutual growth with the local community.

5.

Hansol Paper Signs MOU with Seoul Metropolitan Government to Establish a Paper Carton Recycling System for Daycare Centers



Hansol Paper is accelerating its eco-friendly business initiatives by signing an agreement with the Seoul Metropolitan Government, CJ Logistics, Daeheung Recycling, and SIG Korea to establish a 'Paper Carton Recycling System for Seoul Daycare Centers.' This agreement aims to build a virtuous cycle of resources by collecting paper cartons discharged from approximately 4,400 daycare centers in Seoul, separating them into recycled raw materials, and using these materials to produce children's stationery, high-quality printing paper, and packaging cartons. Hansol Paper has established a stable resource recycling system by investing KRW 7 billion last year to expand its paper carton recycling facilities and will continue to strive to expand such eco-friendly businesses and fulfill its social responsibilities in the future.

6.

Hansol PNS Receives Minister of SMEs and Startups Award for Startup Collaboration Achievements



Hansol PNS was recognized for its innovative business capabilities through collaboration with startups, receiving the Minister of SMEs and Startups Award at the "2024 Public-Private Partnership Open Innovation Support Project Achievement Sharing Session." This award is based on Hansol PNS's contribution to digital transformation and manufacturing innovation, including the successful execution of a Proof of Concept (PoC) to improve the manufacturing process quality in collaboration with a startup possessing AI machine vision technology. Building on this achievement, Hansol PNS plans to expand its win-win model with promising startups and strengthen its capabilities to lead the manufacturing market through job creation and talent development.

7.

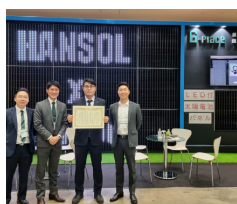
Hansol HomeDeco Wins "Carbon Neutrality Winner Award"



Hansol HomeDeco was recognized for excellence in eco-friendly management by winning the Carbon Neutral Winner Award at the 27th Energy Winner Awards, hosted by the Consumers Union of Korea and sponsored by the Ministry of Trade, Industry and Energy, the Ministry of Environment, and the Korea Energy Agency. Since 2008, Hansol HomeDeco has been researching the use of recycled materials and has introduced 100% recycled MDF that does not use harvested wood, thereby preserving 560,000 trees. In addition, the sawdust and wood powder generated during the MDF production process are used as biomass to produce 25,000 MW of renewable energy annually, leading the way in the development of sustainable technology and the establishment of a resource circulation model. Hansol HomeDeco plans to continue reducing greenhouse gas emissions and developing eco-friendly products based on its carbon-neutral roadmap and lead ESG management in the future.

8.

Hansol Technics Wins Encouragement Award, First Foreign Company to Do So, at Japan "Disaster Prevention Industry Exhibition 2024"



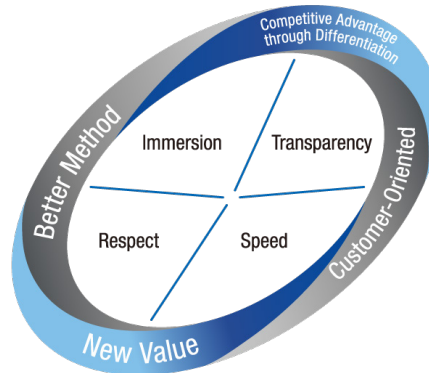
Hansol Technics was recognized for its excellence in sustainable energy utilization and innovative disaster prevention technology, receiving the Encouragement Award in the Disaster Prevention/Mitigation x Sustainable Awards 2024 SDGs Solutions category at the 'Disaster Prevention Industry Exhibition 2024' held in Tokyo, Japan – a first for a foreign company. Hansol Technics's Media PV is a product that combines solar power modules and LED displays, serving as an eco-friendly solution that generates electricity through solar power during the day and can be used as a digital signage at night. With this award as momentum, Hansol Technics plans to strengthen its position in the Japanese disaster prevention market while continuing cooperation and market expansion in global markets such as Europe, China, and Southeast Asia based on energy efficiency and sustainability.

I SUSTAINABILITY MANAGEMENT SYSTEM

Hansol Group has secured a competitive edge and introduced the Hansol Management System (HMS) under the vision of pursuing sustainable growth. The system represents core values that are practiced and embraced by all employees and executives within the Group. The Group has also implemented environmental management, human rights management, safety and health management, and ethical management to reflect sustainability-management principles in its business operations.

Hansol Management System (HMS)

Hansol Group is dedicated to pursuing new values in its business operations through a customer-oriented mindset, driving long-term growth as a result. The Hansol Management System aims to instill a culture and management style of mutual respect among all members of the organization.



Business Principles

Customer-Oriented	New Value
We prioritize our customers	New values shape the future
Better Methods	Competitive Advantage through Differentiation
A better method is our philosophy	Our survival depends on gaining and maintaining a differentiated competitive advantage

Organizational Principles

Immersion	Transparency	Speed	Respect
Focus and sense of unity for outstanding results	Honest sharing of procedures and results	Agility based on simplicity and substantiality	Valuing one another

Environmental Management System (EMS)

Hansol Holdings recognizes that environmental management is a key pillar for sustainable development. To implement eco-friendly management, the company announced its environmental policy in 2019 and has since introduced and operated an Environmental Management System (EMS).

Environmental Management

Hansol Group has introduced an ESG indicator management system with Hansol Holdings, the Group's holding company, at the center to manage ESG data systematically and efficiently. Actions to improve environmental activities are conducted by using the ESG indicator management system to monitor and implement management system establishment and certification, climate change responses, greenhouse gas emissions, energy and water consumption, and pollutants and waste.

Hansol Holdings' Environmental Policies

Efficient Use of Resources and Environmental Protection

We take the lead in preventing environmental pollution and protecting the environment by efficiently using resources and energy and minimizing waste.

EMS Operation and Continuous Enhancement

All employees acknowledge the importance of our environmental policy and make combined efforts to set achievable goals, and take action to improve environmental performance. We also continue to advance our EMS reflecting on improvement points and non-conformities

Stakeholder Communication and Compliance Obligations

We regularly review our environmental goals and detailed directions on a regular basis through active communication with stakeholders. We ensure stakeholders' compliance with environmental obligations by informing them of environmental requirements and management standards that align with their needs.

Sharing the Practice of Transparent Environmental Management

We disclose our environmental policy and information on environmental management to stakeholders to encourage active participation and incorporate transparent environmental management practices into our operations.

International Environmental Management System (ISO 14001) Certification

19 Business Sites

Hansol Paper, Hansol PaperTech, Hansol PNS, Hansol Technics, Hansol IONES, Hansol Logistics, Hansol HomeDeco, Hansol Chemical, Tapex (refer to "Affiliates and Certifications" in page 143)

Human Rights Management

Hansol Group has introduced a policy for human rights protection and promotion of all stakeholders including employees and executives in accordance with Paragraph 2 of Article 25 of the National Human Rights Commission Act. We have also included details on human rights management implementation in our Human Rights Management Guidelines. Respecting the dignity and rights of all human beings as outlined in the Universal Declaration of Human Rights, and the Declaration of Fundamental Principles and Rights at Work, and other international human rights standards and regulations, we ensure a non-discriminatory working environment, strictly prohibit forced labor and child labor, and guarantee industrial safety and environmental rights.

Hansol Holdings Human Rights Management Guidelines

In accordance with UNGC Principle 1, which states that 'businesses should support and respect the protection of internationally proclaimed human rights,' Hansol Group proactively prevents and addresses labor human rights violations. In May 2022, Hansol Holdings established Human Rights Management Operating Guidelines and disseminated them throughout the company. These guidelines include guidance on human rights management, human rights violation standards, specific relief procedures, prevention programs, and examples of representative human rights violations. The guidelines present an opportunity for employees who experience human rights violations to report them. Major affiliates incorporated human rights management into their daily operations in 2023 and established a three-year roadmap to lay the foundation for human rights protection of internal and external stakeholders, contributed to the development of the local community, and led shared growth with residents through various social contribution activities.

Guidelines on Human Rights Management

Human Rights Statement

Hansol is committed to upholding the dignity and values of all human beings across all business activities. Both our employees and executives acknowledge this declaration as the guiding principle for making value decisions and the code of conduct for human rights management.

Human Rights Manager

1. Hansol shall appoint a human rights manager to systematically carry out regulatory procedures and training sessions to promote human rights.
2. The roles and responsibilities of the human rights manager are as follows
 - Matters concerning the establishment and implementation of human rights promotion plans
 - Matters concerning the implementation of human rights education
 - Matters concerning remedies for human rights violations
 - All cases where deliberation on human rights management is required

Human Rights Training

Training on human rights shall be conducted at least once per year to promote human rights awareness among employees and executives at any time and method deemed appropriate.

Support for Human Rights Activities

Hansol can take the necessary actions for human rights protection and value promotion. The company may extend its support to organizations, institutions, and stakeholders involved in the promotion of human rights.

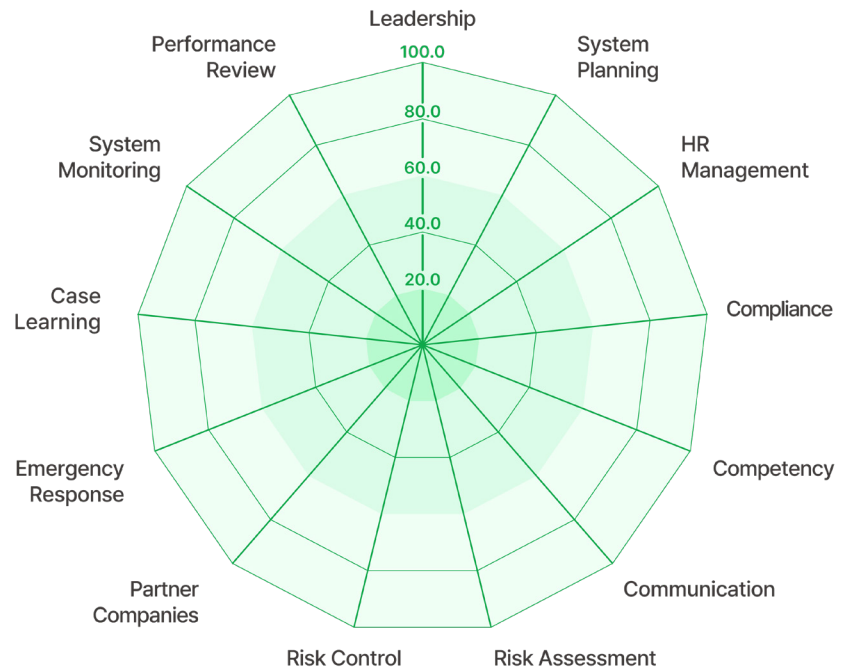
Hansol Safety-Rating System (HSRS)

The saying “No work is worth getting injured” best demonstrates Hansol Group’s commitment to safety and health management. Hansol has introduced HSRS to foster a culture of safety, and address the growing legal and regulatory risks as a reliable company. HSRS is a safety and health work standards and evaluation system, created by optimizing the International Safety Rating System (ISRS) to reflect Hansol’s business characteristics.

Intoduction to HSRS (Hansol Safety Rating System)

To establish fundamental response measures for safety management, Hansol Group first introduced ISRS, an international quantitative assessment of safety management systems, in 2019 to measure its safety management status. It completed its effectiveness verification in 2020 and its second performance measurement in 2021. Through this, the Group achieved fundamental safety management, advanced the work system necessary for response, and cultivated safety management personnel. Through safety and health management activities, Hansol Group achieved a 13% reduction in the accident occurrence rate in 2024 compared with the average of the previous three years, with no major accidents.

HSRS Process Assessment Items



Business Sites Utilizing HSRS Assessment

9sites

Four business sites and Environment Biz of Hansol Paper, Hansol PaperTech, Hansol Technics, Hansol IONES, Hansol Logistics, Hansol HomeDeco

Ethical and Compliance Management

Hansol Group's high-standard ethical management system serves as the basis for sustainable growth, and the Code of Ethics was prescribed for all employees and executives to comply with in their business operations. In addition, an ethical-management website was launched as a reporting channel for employees to use at any time for exposing fraud or corruption. The company also strives to promote ethical awareness and create a transparent company culture by preparing misconduct-prevention education programs for employees and executives. There is a growing demand for companies to be compliant with the law and take responsibility for their business management activities. Compliance management is the most basic requirement for ESG management that companies have to meet. Hansol conducts assessment of the group's current position in compliance management, and resolves vulnerabilities identified at each affiliate to further systemize compliance management, which is growing more and more important each year.

Hansol Code of Ethics

We announced our commitment to ethical management and to upholding Hansol's spirit of integrity and transparency in our Code of Ethics. Our Code of Ethics reflects our strong will to fulfill our ethical obligations to Hansol Group's stakeholders, including customers and shareholders, and a sense of responsibility for ethical management instilled in employees and executives.

Compliance-Management Assessment

Hansol Group has been conducting compliance management audits since 2021. In 2024, eight compliance management system evaluations were conducted for 10 companies (Hansol Paper, Hansol PaperTech, Hansol PNS, Hansol Technics, Hansol IONES, Hansol Logistics, Hansol Home Deco, Hansol Inticube, and their subsidiaries), focusing on compliance issues with a high potential for non-compliance. Through compliance management audits, Hansol Group emphasized the importance of compliance and reinforced its commitment across the Group. In future, Hansol Group aims to establish a compliance risk management system and strengthen its execution in the field. To achieve this, each affiliate will derive improvement tasks based on audit results to further strengthen the Group's compliance management processes.

Establishment of Compliance Management System

Hansol Group has established a Compliance Risk Management System to ensure that Relevant departments and employees comply with regulations during their work processes. Each affiliate conducts periodic self-inspections on compliance through the compliance management system to proactively check for violations of laws and regulations that must be followed during work. The results are continuously monitored and managed, and regular reports are submitted to the management and the board of directors. The legal and regulatory violation risks identified by affiliates through self-inspection are then used to identify weaknesses through compliance management audits. By establishing and implementing self-improvement plans, the Group is strengthening its overall compliance management processes.

Tasks for Implementing Compliance Management

Hansol Paper	Hansol PNS Paper Distribution	Hansol PNS IT Service/ Hansol Inticube
Subcontracting risk management	Safety accident risk management in the paper distribution division	Establishment and training of IT industry legal compliance operation guidelines
Hansol Technics	Hansol Logistics	Hansol HomeDeco
Improvement of environmental regulation and trade secret risk management systems	Improvement of the process for selecting stevedoring companies	Design and improvement of internal audit processes for compliance risk

STAKEHOLDER COMMUNICATION CHANNELS

Hansol Group continuously gathers opinions through various communication channels with key stakeholders. We systematically understand their major expectations and requirements and actively reflect them in the overall management of the Group.

Employees

Communication Channels

Communication board, dialogue with management, employee satisfaction survey, labor-management council, management briefing sessions, workshops, etc.

Key Issues

Human rights protection, respect for diversity, labor-management relations and communication, safety and health, welfare benefits

Partners

Communication Channels

Meetings, surveys, win-win growth council, win-win growth workshops, etc.

Key Issues

Win-win growth, sustainable supply chain, fair trade

Shareholders/Investors

Communication Channels

General shareholders' meeting, investor meetings, corporate governance report, sustainability report, business report, disclosures, earnings announcements, etc.

Key Issues

Economic performance, governance, business opportunities and risk management

Government/Local Authorities

Communication Channels

Ministry of Environment, joint cooperation programs, Ministry of Economy and Finance, FSC, ISO, etc.

Key Issues

Compliance adherence, response to and participation in public policies

Customers

Communication Channels

Website, brochures, exhibitions, trade shows, blogs, promotional videos, YouTube, etc.

Key Issues

Customer safety and health, customer communication

Local Community/NGO

Communication Channels

Social contribution activities, communication activities with local communities near business sites, etc.

Key Issues

Social contribution, local economy, local community communication, environmental protection

DOUBLE MATERIALITY ASSESSMENT

Hansol Group conducts a materiality assessment every year to gather the opinions of key stakeholders and identify key issues for sustainable management.

Double Materiality Assessment Process

To transparently disclose key information related to sustainability, Hansol Group conducts a materiality assessment every year based on the GRI Standards and the concept of Double Materiality. In this process, core ESG issues are identified by comprehensively considering not only the financial impact on the company but also the impact of the company's activities on the external environment and society. The identified issues and the assessment process are diligently disclosed to stakeholders to ensure reliability.

STEP 1	Issue Pool Configuration	
	• Identification of internal issues based on external stakeholders, internal ESG activities, and so on • Analysis of external factors based on Global initiatives and ESG evaluation criteria • Analysis of ESG issues and trends in the same and similar industries	
STEP 2	Environmental/Social Impact Assessment	Financial Impact Assessment
	• Conducting materiality assessment surveys and collecting opinions from domestic and foreign stakeholders • Media Analysis: Environmental and Social Performance and Issues (January 2024–December 2024) • Analysis of ESG disclosures, evaluation criteria, and requirements • Analysis of major ESG disclosure issues of leading companies in the paper industry	• Analysis of the financial impact of ESG initiatives and regulations • Conducting interviews with executives and employees
STEP 3	Selection of Material Issues	
	• Quantification of environmental, social, and financial impacts by issue and matrix analyses • The top ten issues were selected as key critical issues.	

Assessment Results

Hansol Group comprehensively assessed both the environmental and social impacts, as well as the financial impacts, for each of the 22 issues within the issue pool. As a result of the assessment, 'Ethics and Anti-Corruption Management', 'Occupational Health and Safety Management', and 'Supply Chain Management and Shared Growth Enhancement' were selected as the most important ESG issues, and total of 10 major issues were identified including these three. Additionally, the company reviewed the opportunities and risks that could impact the business regarding the 10 major issues.

No.	Category	Key Issue	Compared to Last Year
1	Governance	Ethics and anti-Corruption management	Rise
2	Social	Occupational health and safety management	Rise
3	Social	Supply chain management and shared growth enhancement	Rise
4	Governance	Enhancing governance transparency	Rise
5	Environment	Climate change response	Fall
6	Social	Respect for human rights	Rise
7	Environment	Innovation through sustainable products/Technology	Rise
8	Environment	Energy conservation and expansion of renewable energy	Fall
9	Environment	Waste management	Rise
10	Social	Customer-Centric management	Rise

● Governance
● Social
● Environment

I DETAILED MATERIALITY ASSESSMENT

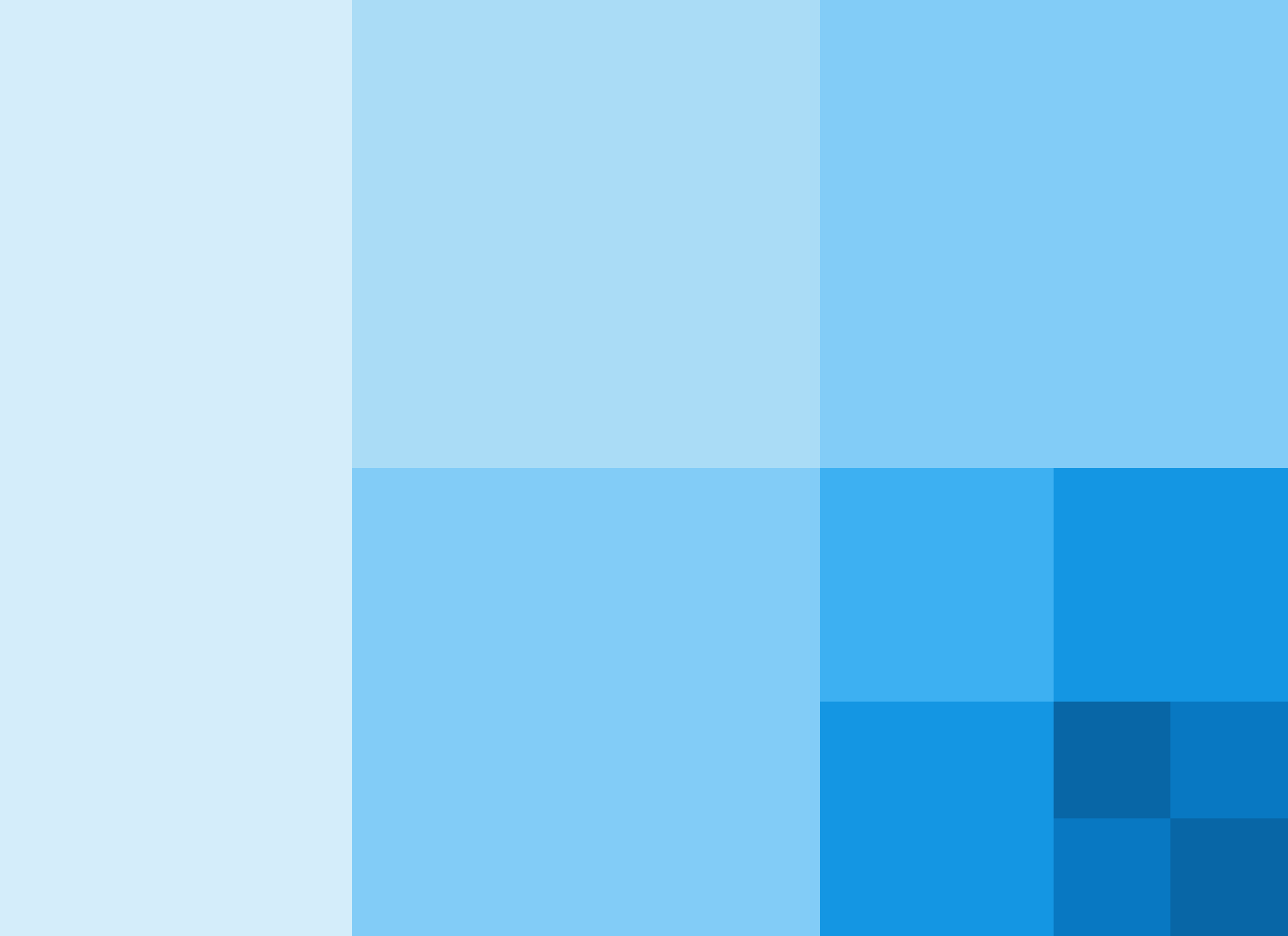
Hansol Group plans to continue actively responding to ESG management activities by consistently reflecting the demands and interests of stakeholders in the future.

Rank	ESG Areas	Key Issue	Position within the value chain	Impact Valuation	
				Positive	Negative
1	Governance	Ethics and Anti-Corruption Management	Company-wide (Across the entire value chain)	Ethical and transparent management strengthens trust with stakeholders and contributes to the spread of integrity culture.	Corruption or unethical behavior reduces social trust and negatively impacts the overall ESG evaluation of the company.
2	Social	Occupational Health and Safety Management	Company-wide (Production area)	The spread of safety culture, including with partner companies, contributes to improving working environments across the industry.	When major disasters occur, community anxiety increases, and criticism regarding social responsibility can spread.
3	Social	Supply Chain Management and Shared Growth Enhancement	Upstream	By strengthening the capabilities of partner companies, the sustainability of the entire industrial ecosystem can be enhanced.	When ESG issues occur within the supply chain, brand image can be damaged, and social trust may decrease.
4	Governance	Enhancing Governance Transparency	Company-wide (Governance area)	Transparent governance increases market confidence and contributes to the formation of healthy shareholder relationships.	Lack of transparency in governance structure can cause distrust among stakeholders and undermine confidence in the capital markets.
5	Environmental	Climate Change Response	Company-wide (Across the entire value chain)	Greenhouse gas reduction efforts contribute to achieving environmental goals at local and national levels and promote eco-friendly industrial transformation.	Passive response to climate change can accelerate environmental destruction and lead to social criticism.
6	Social	Respect for Human Rights	Company-wide	Human rights-centered management strengthens inclusive culture within the community and industry, and contributes to the formation of a sustainable society.	When human rights violations occur, international criticism may arise along with serious disadvantages in ESG evaluations.
7	Environmental	Innovation through Sustainable Products/Technology	Downstream	The development of eco-friendly technology achieves both resource efficiency and environmental protection, and can lead green transition within the industry.	Technology development that does not consider environmental impact can cause consumer distrust and induce social backlash.
8	Environmental	Energy Conservation and Expansion of Renewable Energy	Upstream	Improving energy efficiency and expanding renewable energy contribute to national energy transition policies and provide environmental pollution reduction effects.	High initial investment costs and instability in renewable energy supply can burden the industry in the short term.
9	Environmental	Waste Management	Downstream	Efficient waste management promotes resource circulation and contributes to improving the quality of the local environment.	Inadequate waste management can increase environmental pollution and community complaints, and damage corporate image.
10	Social	Customer-Centric Management	Downstream	By providing products and services that meet customer needs, consumer satisfaction can be enhanced and contributes to improving the overall corporate image.	In the event of customer complaints or personal information leaks, consumer distrust can spread and deal a fatal blow to corporate credibility.

Rank	Key Issue	Risks and Opportunities		Classification	Response and Management
		Risk	Opportunity		
1	Ethics and Anti-Corruption Management	When internal controls are insufficient, the possibility of corruption incidents increases, facing legal sanctions and social criticism.	Through transparent management, opportunities for transactions with global companies can be secured and long-term reputation assets can be accumulated.	Short-term	We establish ethical management policies and employee code of conduct, and carry out company-wide training at least once a year.
2	Occupational Health and Safety Management	In the event of safety accidents, production Systematic safety and health management disruptions, fines under the Serious responsibility issues may arise.	Systematic safety and health management can prevent workforce outflow and create a favorable environment for securing excellent talent.	Short-term	We have introduced an Occupational Health and Safety Management System (ISO 45001) to promote systematic safety management.
3	Supply Chain Management and Shared Growth Enhancement	Problems such as delivery delays and quality deterioration due to poor management of partner companies can simultaneously reduce corporate credibility and productivity.	Collaboration with partners that meet ESG criteria ensures stable supply and strengthens sustainable competitiveness.	Short to Mid-term	We regularly conduct ESG evaluations of partner companies and manage items requiring improvement as joint improvement tasks.
4	Enhancing Governance Transparency	When governance is inadequate, the board's check and balance function weakens, increasing management inefficiency and risks.	A transparent decision-making structure has a positive effect on attracting long-term investors and stabilizing stock prices.	Mid-term	We operate ESG and Audit Committees to constantly check sustainability and legal risks at the board level.
5	Climate Change Response	Cost increases due to strengthened emission regulations, burden of purchasing emission rights, and the possibility of production interruption due to physical climate risks exist.	Low-carbon technology and eco-friendly businesses can capture new markets, and government incentives and ESG investments are more easily attracted.	Mid to Long-term	We set carbon emission measurement and reduction targets, and manage reduction performance by checking them annually.
6	Respect for Human Rights	If human rights due diligence and management systems are inadequate, it can lead to legal sanctions, contract terminations, and reputation damage.	Through human rights management, global client ethical standards can be met, enhancing corporate reputation and brand value.	Mid-term	We have established a human rights management policy based on the UN 'Guiding Principles on Business and Human Rights (UNGP)' and conduct regular human rights impact assessments.
7	Innovation through Sustainable Products/Technology	If technology development fails or initial investment recovery is delayed, financial losses and strategic risks may occur.	Sustainable technology provides opportunities for entering new markets and strengthens the image as a technology-leading company.	Mid to Long-term	We are expanding the proportion of R&D investment for the development of eco-friendly materials and high-efficiency production technologies.
8	Energy Conservation and Expansion of Renewable Energy	If the transition point is delayed or energy efficiency is not secured, policy sanctions and cost burdens may increase.	Energy conservation can reduce operating costs in the long term and lead to excellent performance in ESG evaluations.	Mid to Long-term	We periodically monitor energy usage and improve energy intensity through high-efficiency equipment and design changes.
9	Waste Management	Non-compliance with waste regulations can result in financial and operational losses such as fines, administrative sanctions, and business interruptions.	By introducing waste reduction and recycling technologies, costs can be reduced and an eco-friendly brand image can be built.	Short-term	We strengthen the resource circulation system to minimize waste generation and manage the recycling rate of all business sites as a management indicator.
10	Customer-Centric Management	Inadequate customer response can lead to actual losses such as reputation decline, negative reviews and public opinion, and decreased sales.	Customer-centric management is advantageous for securing loyal customers and expanding market share, leading to long-term brand value increases.	Short to Mid-term	We regularly collect customer feedback and set and manage quality improvement goals.

3

ENVIRONMENT



36	Environmental Management and Climate Change Response
38	Eco-friendly Business and Technology Investment
44	GHG and Energy Management for Climate Action
50	Circular Economy

ENVIRONMENTAL MANAGEMENT AND CLIMATE CHANGE RESPONSE



Net-Zero

Net-Zero Neutrality
Roadmap



Eco-Friendly Product

Launch



Development of Carbon Reduction Technologies

and Introduction of
Reduction Equipment

1. Eco-Friendly Business and Technology Investment

Eco-Friendly Product Development

- **Hansol HomeDeco** World's First Launch of 100% Recycled Material MDF Product

Eco-Friendly Product Certification

- **Hansol PaperTech** 100% of Products with FSC Certification

Discovery of New Businesses and Technologies

- **Hansol Chemical** Increased Use of Industrial Grade Hydrogen Peroxide from Recycled Waste Battery Materials

2. GHG and Energy Management for Climate Action

Establishment of Greenhouse Gas Reduction Targets and Implementation Roadmap

- **Hansol IONES** Establishment of 2050 Net-Zero Achievement Target

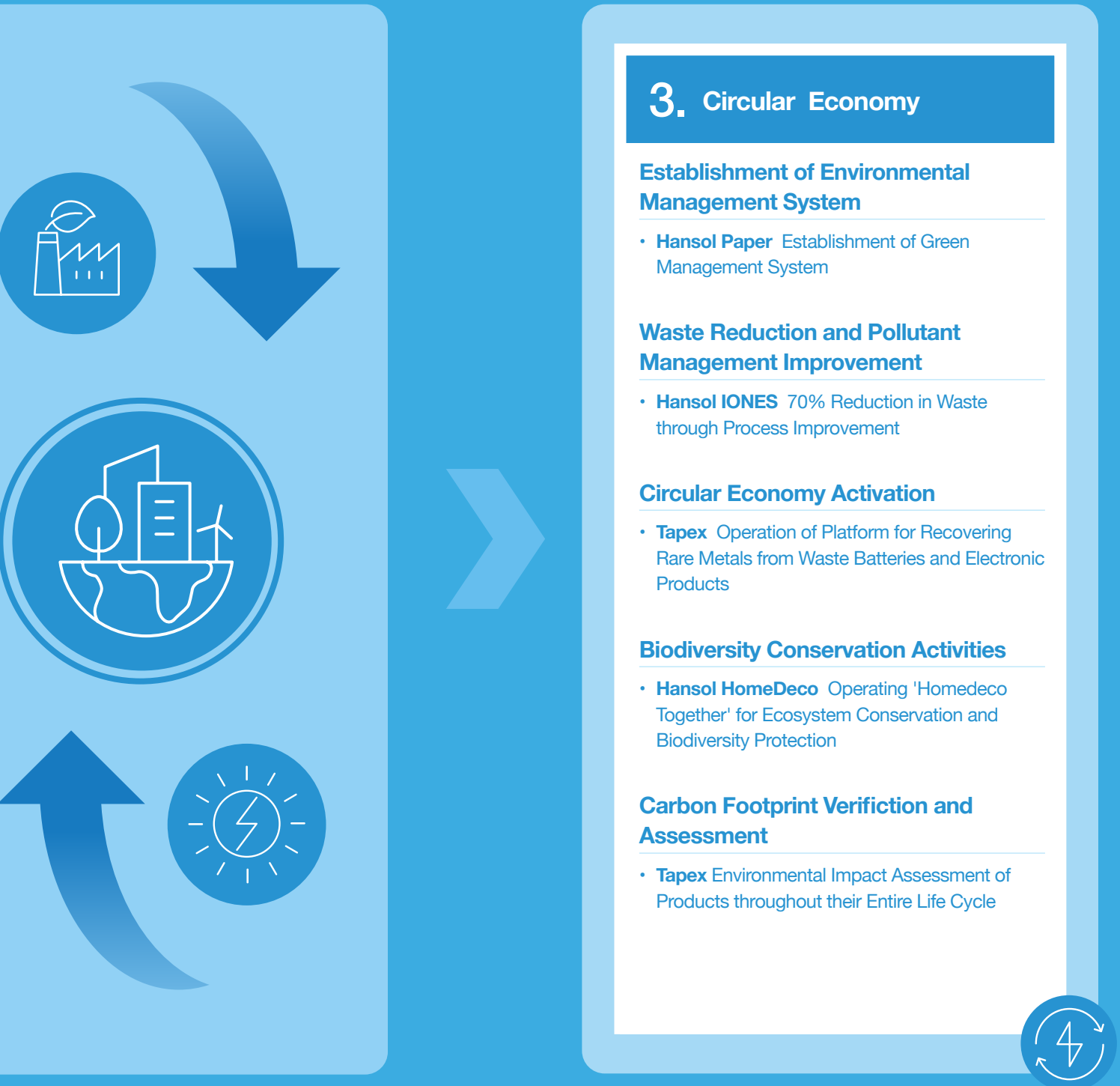
Climate Change Risk Analysis

- **Hansol Technics** Strengthening Climate-Related Risk Management System

Greenhouse Gas Reduction Activities through Efficiency Improvement

- **Hansol Chemical** Installation of Inverters to Reduce Electricity/Steam Consumption

Amidst the growing awareness of the climate crisis, domestic and international companies are actively moving toward achieving carbon neutrality by 2050. Hansol Group also strives to minimize the negative environmental impact of its business activities and contribute to resolving the global climate crisis through efforts such as minimizing greenhouse gas emissions, transitioning to renewable energy, and developing eco-friendly technologies and products.



ECO-FRIENDLY BUSINESS AND TECHNOLOGY INVESTMENT

Eco-Friendly Product Development

Hansol Paper

Hansol Paper supplies eco-friendly products through the development of sustainable material technologies, with Protego, Terravas, and Duracle being the major products. Protego is a high-barrier, eco-friendly paper packaging material with moisture and oxygen barrier properties that can serve as a substitute for aluminum and plastic composites. It is applied to more than 40 items, including packaging and cold beverage pouches, and its use is increasing. Terravas is an eco-friendly paper container that uses Hansol Paper's own developed water-soluble coating technology with a recyclability rate of over 90%, instead of a polyethylene (PE) coating. It is gaining attention in the food and beverage industry and is being used for paper cups and straws in coffee franchises, as well as cake packaging. Duracle is a high-performance, eco-friendly material that utilizes wood-derived nanocellulose and is characterized by its excellent strength, moisturizing properties, and thickening ability. It is used in automotive seat interiors and cosmetic additives and has obtained domestic and international vegan certifications, recognizing its eco-friendliness and safety.

Hansol Paper focuses on developing eco-friendly new technologies and materials for each business division through its Central Research Center. In 2024, it signed various MOUs with diverse companies and institutions, including multilateral development agreements, further strengthening its development of eco-friendly materials.

• MOU for Health Functional Food & Cosmetics Packaging Development



• MOU for Product Development and Commercialization Using Natural Resources from Jeju Island



Hansol HomeDeco

Hansol HomeDeco has launched “Hansol Story Film,” an eco-friendly interior film utilizing polypropylene (PP), which is used in food containers, instead of conventional polyvinyl chloride (PVC). This product is free of harmful substances and does not generate toxic gases in the case of fire, making it safe. It has been released in 30 different patterns. Furthermore, it is resistant to fingerprints and stains, and through the air-free application method, it allows for a neat, bubble-free finish on various finishing surfaces.

Hansol HomeDeco has launched “Hansol Recycled MDF,” the world’s first MDF product made using only 100% recycled raw materials. It is a panel board manufactured by compressing fibers obtained from renewable resources under high temperature and pressure. Compared with other domestic and international MDF manufacturers that use recycled raw materials at a level of 35%–50%, Hansol HomeDeco utilizes 100% recycled materials. It is currently used in various applications such as packaging pallets, interior materials, and wooden bobbins, and the company plans to further expand its application areas by improving the surface quality in the future.

Tapex

In line with government policies, Tapex is actively developing eco-friendly products. In response to the Ministry of Environment’s policy to reduce single-use product consumption in November 2019, the company supplied paper straws to large supermarkets and coffee franchises, achieving sales of KRW 840 million in 2024. Furthermore, it participated in the reusable cup business through the “Habit Eco Alliance” agreement, an ESG-related initiative. In compliance with the plan to reduce waste plastic by 20%, Tapex launched PCR stretch film in the fourth quarter of 2023, establishing a virtuous cycle value chain that utilizes discarded plastic as a raw material. This has led to eco-friendly effects, such as a reduction in total plastic usage, incineration volume, and emissions of fine dust and greenhouse gases, while also recording sales of KRW 21 million in 2024, contributing to the enhancement of the company’s image and business expansion.

To ensure consumer safety, Tapex continuously expands its self-quality testing in accordance with the standards of the Ministry of Food and Drug Safety. Until 2022, it conducted inspections on the paper material of paper straws twice a year. Starting in 2023, product reliability was strengthened by adding an atryl agent test to the inspection items. In the future, it plans to additionally conduct a safety assessment that includes testing for the presence of phthalate plasticizers. Although paper straws are noted as an alternative for environmental improvement owing to their excellent biodegradability, there is a possibility of bisphenol A (BPA) being included in the coating process. To enhance safety, the analysis of BPA, an endocrine disruptor, has been added to the hazardous substance management items.

Tapex, which holds the No. 1 position in the domestic commercial wrap market, is actively practicing ESG management through the development of environmentally friendly food packaging wraps. In the second half of 2023, it launched PO wrap, which reduces plastic usage by 30% compared to the conventional PVC wrap and does not generate chlorine during incineration. With product lineups for both commercial and household use, it achieved approximately KRW 160 million in sales in 2024. This development of eco-friendly new products emphasizes environmental sustainability compared to existing flagship products, thereby practicing ESG management as a leading company and proactively responding to future environmental changes to secure sustainability.

Eco-Friendly Product Certification

Hansol Paper

Hansol Paper supplies eco-friendly products such as Terravas and Protego, which are biodegradable and phenol-free.

Certification	Product Name
Environmental Label Certification /GR Certification	Inspier, Printing Paper
UL 2485	Terravas (Paper Cups, Straws) Whale-Saving Wet Wipes
UL ECV 2485	Protego Paper Straws

Hansol PaperTech

Hansol PaperTech has achieved approximately KRW 229.7 billion in sales over the past two years with 100% of its products being FSC certified and is continuously planning business ventures of eco-friendly products.

Certification	Product Name	Paper Type
FSC	SK, KA	Liner
	K2, TKLB, TKA, HK	Test Liner
	S	Corrugated medium paper

Hansol HomeDeco

Hansol HomeDeco supplies MDF, flooring, and wall materials that have obtained environmental labels such as the Eco-Label, GR Certification, Low-Carbon Certification, and Environmental Product Declaration. Its sales have steadily grown from KRW 84.2 billion in 2022 to KRW 89.1 billion in 2023 and KRW 124.8 billion in 2024. In particular, the sales proportion of eco-friendly products has grown significantly from 29.8% in 2022 to nearly 40% at 38.1% in 2024, indicating that eco-friendly products contribute to revenue growth.

Certification	Product Name
Eco-Label, GR Certified	E0 MDF 35 Type
	E0 MDF 30 Type
	E0 MDF 20 Type
GR Certification	E0 MDF 25 Type
	E0 MDF 15 Type
Eco-Label	SPB
	SB Emboss
HB Mark	Wellstone
	Prum
	Collect Wall

Certification	Product Name
Eco-Label, HB Mark, Indoor Mark	Laminate Flooring (Dynamic)
	Laminate Flooring (Wood)
Eco-Label, HB Mark, Low-Carbon	Ultra
	Ultra Strong
Eco-Label, HB Mark	Story Wall
Eco-Label, HB Mark, Environmental Product Declaration	SB General (Edge/Stone)
	SB Strong (Edge/Stone)
Eco-Label, Indoor Mark	SB Flooring Strong
Indoor Mark	Collect Skin Floor
	Ultra Strong

Hansol Technics

Hansol Technics supplies KS-certified solar modules and has achieved approximately KRW 211 billion in sales over the past two years.

Certification	Product Name
KS Certified	HS505WE-GHD10(35T,1st Grade)
	HS505WE-GHD30(1st Grade)
	HS600XE-GHE10
	HS500WE-XHD20
	HS500WE-GHD10(35T/24 Cells)
	HS505WE-GHD50(1st Grade)
	HS500WE-GHD50

Certification	Product Name
KS Certified	HA625AE-NRE00
	HS500WE-GHD40
	HS500WE-GHD30(1st Grade)
	HS505WE-GHD30
	HS500WE-GHD10(35T)
	HS500WE-GHD30
	HS550XD-GHE10
	HS505WE-GHD20(1st Grade)

Strategies for Discovering New Businesses and Markets

Hansol Group

Hansol V Frontier is an open innovation program operated by Hansol Group in partnership with accelerator Bluepoint Partners since 2020. Its goal is to discover and support innovative startups that can lead various industries, thereby building a robust industrial ecosystem. The 27 startups selected for the first to fifth cohorts of Hansol V Frontier have advanced their businesses through diverse collaborations with Hansol Group affiliates, including the initial Proof of Concept (PoC). Furthermore, Hansol Group has invested in five of these outstanding selected startups to support their growth.

The strategy execution presentation hosted by Hansol Holdings is an event in which the Group's affiliates establish tasks annually based on their mid-term strategies, execute them over the course of a year, and share the results across the entire company. It has been held for key affiliates since 2013 and was expanded to include all affiliates in 2014. Starting in 2024, the event was renamed from "Innovation Olympics" to "Strategy Execution Presentation" to emphasize that good strategies and tasks are derived through fundamental improvements from a long-term perspective and that execution is paramount. In 2024, three teams were selected as outstanding projects, with one Gold Award and two Silver Awards presented.

The Gold Award went to Hansol Paper for its project on establishing a sales system for the optimal production of 132,000 tons of labels. The Silver Awards were given to Hansol HomeDeco for its project on achieving KRW 5 billion in recurring profit for Storyboard through B2C-oriented partnerships, and to Hansol Technics Hanoi for its project on maintaining a competitive edge over customers by strengthening cost, quality, and delivery competitiveness.

Hansol Chemical

Industrial grade hydrogen peroxide was primarily used in limited markets such as textiles and PCBs, but its application as a raw material in the recycling of secondary battery waste has recently increased its utility. Sales in this area have grown from KRW 4.8 billion in 2022 to KRW 6.6 billion in 2024, indicating a continuous demand.

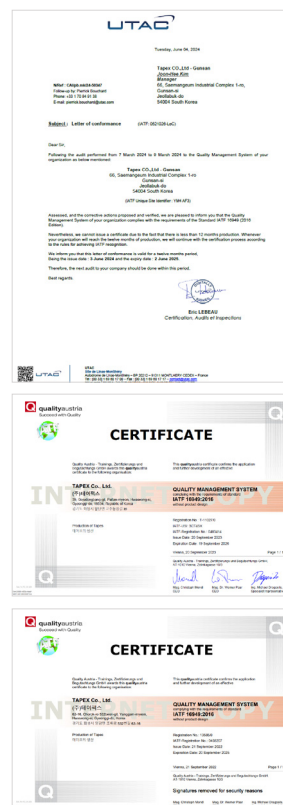
Hansol Logistics

Based on its unique logistics competitiveness in the secondary battery sector, which is primarily centered in Asia, Hansol Logistics has focused on improving its business structure for sustainable development and expanding into the Indian, American, and European markets. This originated from the intention to seek opportunities in new markets based on its existing operational competitiveness in secondary batteries, and as a result, it was able to expand the volume of existing major clients and successfully secure orders in newly entered markets such as India, the United States, Hungary, and Poland.

Tapex

In line with the rapid growth of the eco-friendly electric vehicle market, Tapex is continuously striving to secure a global-level quality management system. By obtaining the IATF 16949 certification, the stringent international quality standard for the automotive industry, the company is enhancing the reliability of its functional tapes for secondary batteries. As of the end of 2024, Tapex holds the IATF 16949 certification at three business sites: Paltan Plant (first acquired in 2020, renewed in September 2023), Yanggam Plant (first acquired in September 2022), and Saemangeum Plant (first acquired in June 2024), which was completed in 2023. IATF 16949 is an automotive quality management system jointly developed by the IATF, which comprises global automotive manufacturers such as GM and Ford, and the International Organization for Standardization (ISO). Through this certification, the company is enhancing its international credibility regarding the quality of its electric vehicle materials. These efforts have led to the expansion of global customers and increased sales, thereby strengthening the foundation for sustainable growth.

To expand its supply of functional tapes for global electric vehicle batteries, Tapex has secured VDA 6.3 Process Auditor qualifications and, by obtaining VDA 6.3 auditor certification, it has strengthened its ability to respond to the stringent process audits of European automakers such as Volkswagen, Audi, and BMW. VDA 6.3 is a supplier management standard established by the German Association of the Automotive Industry (VDA), a review system that adds the specific requirements of the German automotive industry to the IATF 16949 quality system. It assigns grades of A (90 points↑), B (80 points↑), and C (80 points↓) through the evaluation of 6 sections and 59 items, and obtaining a B grade or higher is a crucial certification for business transactions. To achieve this, Tapex has strengthened its internal audit process establishment and employee training, and established a systematic response strategy for the scoring criteria and downgrade clauses for each audit item. In particular, by advancing the management system for the process stability, transparency, and traceability required in the field of electric vehicle battery materials, the company has proactively met the technical and regulatory requirements of its customers. Tapex plans to solidify its entry into the European market through continuous auditor competency enhancement training in the future, which will lead to increased competitiveness in the global market.



Hansol PNS

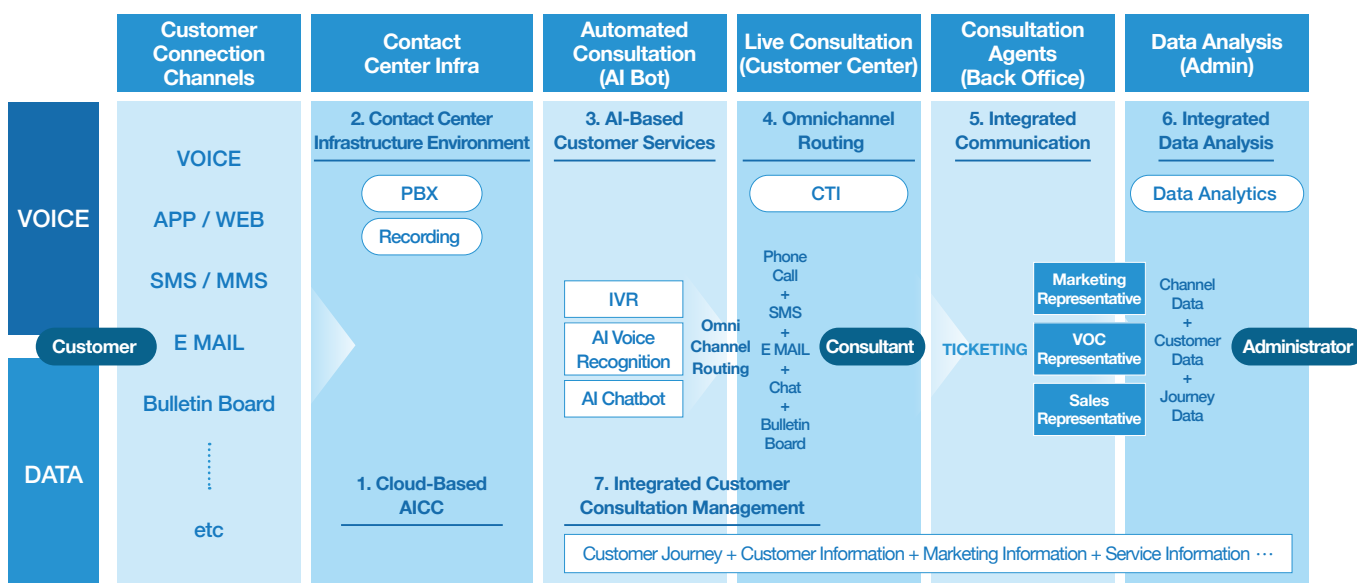
As part of its business diversification strategy, Hansol PNS IT Service Division is actively pursuing a solution distribution business. In February 2023, it signed a master distributor agreement with Huawei Korea and xFusion to supply Huawei's storage and network solutions and xFusion's server products to the domestic market. Through this, Hansol PNS supports customers in stably adopting a wider range of IT infrastructure and solutions, strengthening its competitiveness in the IT service market. The company aims to grow its solution distribution business and expand its market share through the continuous expansion of partnerships and advancement of its business model.

Hansol PNS IT Service Division is striving to grow into a top-tier company that provides solutions optimized for the manufacturing sector. To this end, it has been operating a technology research center since 2022, promoting the internalization of big data analysis and AI modeling technologies. Based on this technological prowess, it aims to support customers' digital transformation (DX) acceleration and contribute to solving various challenges faced by the manufacturing industry. The company plans to continue focusing on providing more efficient solutions through ongoing research and development and innovation, thereby enhancing the competitiveness of the industry as a whole.

Hansol Inticube

In September 2024, Hansol Inticube launched 'Hansol Cloud CS', a cloud contact center service developed with its own technology. 'Hansol Cloud CS' is a service optimized for the domestic customer center environment, boasting excellent price competitiveness through usage-based billing and operational convenience that allows customers to operate it themselves without technical personnel. It provides features such as phone, KakaoTalk, and AI consultation, and is an all-in-one consultation platform that enables integrated management of all stages from the beginning to the end of a consultation within a single system. Hansol Inticube will continue to enhance the value of its cloud contact centers and lead the market by presenting differentiated service models.

• Building a Cloud-Based AICC



GHG AND ENERGY MANAGEMENT FOR CLIMATE ACTION

Establishment of Greenhouse Gas Reduction Targets and Implementation Roadmap

Hansol Paper

As the sense of crisis regarding the environment intensifies due to increasingly severe climate change, such as abnormal temperatures and rising sea levels, regulations related to carbon neutrality and demand from stakeholders are increasing. Major developed countries are strengthening their carbon regulations and turning them into non-tariff barriers. Europe plans to gradually impose a Carbon Border Adjustment Mechanism (CBAM) starting in 2026, and the United States is also considering similar measures. In Korea, the gradual paid sale of carbon emission allowances, which are currently allocated free of charge to companies, is being reviewed. In addition, major domestic and international stakeholders demand participation in carbon neutrality, making a mid to long-term carbon neutrality plan and its execution essential for the sustainable growth of companies. Accordingly, Hansol Paper has established a carbon neutrality roadmap to achieve Net-Zero by 2050. The roadmap is structured in phases, considering changes in carbon neutrality regulations, the status of related technology development, and the company's characteristics. In the short term, by 2030, we will maximize cost competitiveness improvement and the reduction of in-house energy consumption such as electricity and steam. Subsequently, we will achieve carbon neutrality by 2050 through the development of new carbon reduction technology businesses such as the use of eco-friendly fuels and electricity, and Carbon Capture, Utilization, and Storage (CCUS).

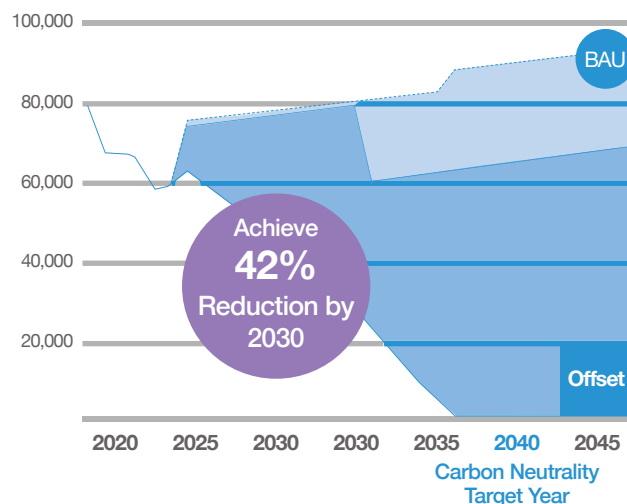
Phase 1 (Short-Term) 2023 - 2030	Phase 2 (Mid-Term) 2030 - 2040	Phase 3 (Long-Term) 2040 - 2050
Implementation Strategy Maximize In-House Energy Reduction (Electricity, Steam Reduction) Can be implemented independently in the short term and improves cost competitiveness, thus prioritized for immediate implementation	Implementation Strategy Direct Emissions Zeroing (Scope 1 : In-House Steam) Can be implemented independently but requires a mid to long-term approach due to high difficulty and the need to adopt advanced technologies	Implementation Strategy Indirect Emissions Zeroing (Scope2 : Electricity, External Steam) Cannot be implemented independently and requires coordination with KEPCO, external power generators' policies, and the adoption of new technologies
Key Implementation Tasks • Reduce electricity consumption by introducing high-efficiency facilities • Reduce steam consumption by improving thermal efficiency • Partially implement short-term tasks such as low-carbon and CCUS projects	Key Implementation Tasks • Change steam heat source to low-carbon fuel • Offset direct carbon emissions through CCUS project development (Offsetting carbon emissions from the Daejeon incinerator) • Introduce eco-friendly electricity (Scope2) (Pursue in conjunction with the government's power supply policy)	Key Implementation Tasks • Expand the adoption of eco-friendly electricity (Scope2) (Pursue in conjunction with the government's power supply policy) • Offset indirect carbon emissions through CCUS project development (Scope2)

Hansol HomeDeco

Hansol HomeDeco has established a systematic implementation roadmap to achieve its greenhouse gas reduction targets and initiated company-wide responses based on this. The company first calculated and analyzed its overall greenhouse gas emissions and evaluated emission factors across various categories, including purchased goods and services, capital goods, logistics, and waste disposal. Within the Scope 3 category, emissions from the top five items—products and services, capital goods, logistics, and waste disposal—accounted for approximately 99% of the total Scope 3 emissions. Based on this, Hansol HomeDeco has set a long-term goal to reduce approximately 30,000 tons of Scope 1 and 2 emissions—equivalent to 42% reduction according to SBTi criteria—by 2030, and to achieve carbon neutrality by 2040 through an additional reduction of approximately 81,000 tons. Feasible strategies for this include the adoption of renewable energy and the conversion of company vehicles to electric vehicles as key reduction measures that can be implemented in the short term.

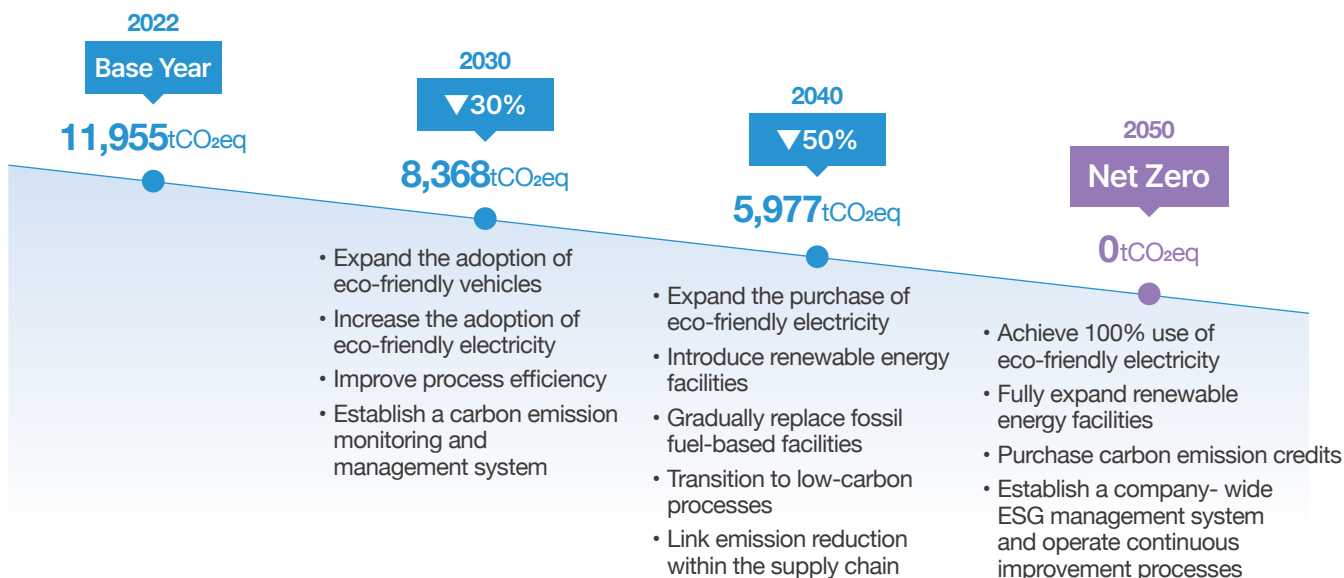
• 2040 Carbon Neutrality Roadmap

(unit: tCO₂eq)



Hansol IONES

Hansol IONES established detailed short, mid and long-term goals for achieving Net Zero at its headquarters by 2050 through eco-friendly process improvement consulting and selected specific reduction items to meet these goals. Accordingly, in 2024, the company attempted to conserve energy by replacing an outdated boiler to improve operational efficiency and laid the groundwork for introducing renewable energy by entering into a direct power purchase agreement. Moving forward, it plans to monitor progress at each stage and revise targets as necessary to pursue its greenhouse gas reduction strategy effectively.



Climate Change Risk Analysis

Hansol Paper

Hansol Paper reviews potential risks and opportunities across all management activities at the company-wide level to respond to climate crises. Risks are managed by categorizing them into transition and physical risks, and the company plans to manage future-related financial costs by analyzing potential financial impacts. The identified climate change risks are reported to the Board of Directors and managed and addressed company-wide.

• Climate Change Risks and Response of Hansol Paper

Category	Risks & Opportunities	Potential Financial Impact	Response Strategy	
Transitional Risks	Policy / Regulation	• Stricter climate and environmental disclosure requirements	• Increased information disclosure costs	• A dedicated ESG team responding to ESG disclosures and evaluations
		• Introduction of carbon tax and stricter regulations on high-carbon industries	• Increased export costs to countries implementing carbon taxes/regulations	• Strengthening product-level carbon emission measurement using LCA
		• Rising renewable energy demand from carbon neutrality policies	• Increased procurement costs due to higher renewable energy prices	• Gradual investment based on policy and technology shifts
		• Strengthened environmental regulations	• Strengthened environmental regulations	• Enhanced monitoring of climate-related laws/regulations, strengthened eco-certification, hazardous substance management
	Technological Transition	• Facility expansion for energy efficiency and GHG reduction	• Increased investment costs for high-efficiency facilities	• Implementing energy-saving projects linked to cost competitiveness
		• Intensified competition in eco-friendly products and technology development	• Increased R&D costs for new products and technologies	• Expanding eco-friendly packaging and wood-based materials development
	Market Change	• Rise in price of raw materials owing to changes in regulations in major importing countries	• Increased raw material purchasing cost	• Monitor raw material prices and diversify supply channels
		• Changing customer preferences for green businesses and products	• Decreased sales when customer value proposition fails	• Expand green product portfolio and boost marketing efforts
Reputational Issues	• Increased demands from investors and stakeholders for climate action	• Decline in stock price, investment withdrawal, and customer loss if insufficient climate action	• Establishing a carbon neutrality roadmap and take reduction measures	
Physical Risks	Acute	• Extreme weather events (typhoons, heavy rain, snow, etc.)	• Recovery costs from damage to facilities/equipment • Decline in collateral value of owned real estate • Production decreases due to raw material supply disruptions, plant shutdowns etc.	• Implementing BCM and real-time monitoring system of materials and products
		Chronic	• Rising average temperature	
Opportunities	Resource Efficiency	• Improved energy efficiency through high-efficiency facilities	• Reduced operating costs through energy savings	• Expanding energy-saving technologies such as solar power facilities
		• Expanded recycling and reuse of raw materials	• Reduced raw material procurement costs	• Increasing investment in resource circulation, such as of recycled DIP
	Product / Market	• Expansion of the eco-friendly product market	• Increased profits from eco-friendly products	• Enhancing collaboration for eco-friendly solutions such as ‘Hansolution’
		• Changing customer preferences for eco-friendly products	• Increased brand value if eco-friendly reputation is secured	

Hansol Technics

Hansol Technics is enhancing its climate risk management to address rising business uncertainties and ESG demands. Climate risks are classified as transition (policy, market, technology, reputation), physical (acute and chronic from extreme weather), and other risks (product demand, market changes). These are systematically identified and managed through a company-wide risk response system, with major risks promptly reported to and addressed by management.

Hansol Technics has set a mid to long-term greenhouse gas reduction strategy aligned with the Paris Agreement's 1.5°C scenario, establishing phased targets for 2030 and a foundation for carbon neutrality. This core initiative enhances regulatory compliance, global competitiveness, and ESG management, aiming to minimize climate-related impacts and ensure sustainable business operations.

• Climate Change Risks and Response of Hansol Technics

Category	Major Risks Identified	Potential Impact	Response Direction
Transitional Risk	Policy / Regulation	- Increased production costs due to heightened carbon emission regulations - Transition to an eco-friendly economy	- Increased cost caused by carbon emission - Change of energy use pattern required - Climate change and request for eco-friendly activities for companies' sustainable growth - Increasing production efficiency - Adopting low carbon technology - Establishment of mid to long term strategies for climate-change response - Step-by-step roadmap and implementation
	Market Change	Environmental pollution before and after production of electrical product	- Increased danger of environmental pollution regarding installation and disposal - Expanding the use of technologies and raw materials that reduce disposal costs
	Technological Transition	Rapid advancement of low-carbon and renewable energy technologies	- Increased pressure and investment to maintain technological competitiveness - Monitoring research trends on eco-friendly technology and B/M
	Reputational Issues	- Growing importance of corporate environmental image - Increasing social demand for ESG management	- Decline in brand value due to negative environmental image - Decreased trust from investors and consumers - Strengthening ESG management and transparent information disclosure - Promoting eco-friendly activities and fulfilling social responsibility
Physical Risk	Acute	Growing intensity of climate change such as typhoons, floods, and wildfire	- Preparation of climate-change responses by analyzing physical risk scenarios - Preparation of climate-change responses by analyzing physical risk scenarios
	Chronic	Changes in climate patterns such as rising sea levels and average temperature	- Increase in recovery cost for business sites impacted from environmental change - Establishment of serious occupational accident response measures and review of implementation
Opportunity	Product / Market	Customers showing more interest towards eco-friendly products	- Demand and sales increase of eco-friendly products and services - Monitoring eco-friendly technology and research trends, and expansion of technology investment

Hansol IONES

• Climate Change Risks and Response of Hansol IONES

Category	Major Risks Identified	Potential Impact	Response Direction
Transitional Risk	Policy/ Regulation	- Strengthened greenhouse gas emission regulations - Mandatory issuance of Sustainability reports, etc.	- Increased burden of legal compliance - Decline in supply chain ESG evaluation scores - Set greenhouse gas reduction targets - Improve environmental management system - Establish a supply chain emission management system
	Market Change	- Increase carbon emission allowance prices - Growing Stakeholder demands - Sustainability requirements in the supply chain	- Increase purchasing costs - Downgrading of supplier evaluation grades and inability to maintain cooperative relationships - Greenwashing risk - Introduce eco-friendly facilities and renewable energy - Establish supply chain due diligence and response strategies
	Technological Transition	- Widespread use of renewable energy - Enhanced energy efficiency - Demand for emission reduction technologies	- Increased facility investment costs - Increased technological response costs - Introduce energy-saving facilities - Expand the use of renewable energy - Invest in technology development
	Reputational Issues	- Demand for information disclosure - Increased interest in ESG - Loss of trust due to non-implementation of sustainability	- Reputational damage, loss of customer/ investor trust - Strengthen sustainable management - Establish a roadmap for improving ESG evaluation
Physical Risk	Acute	Work stoppages due to natural disasters such as heatwaves, storms, and wildfires	- Production disruptions, increase in safety accidents - Deterioration of worker health - Install cooling systems, establish emergency response scenarios - Strengthen safety training
	Chronic	Rising Temperatures, water scarcity, changes in environmental conditions	- Long-term productivity decline - Weakening of operational efficiency - Establish strategies for physical risk assessment and response - Improve the working environment
Opportunity	Products/ Market	Increased demand for eco-friendly products and services	- Increased demand for low-carbon product development - Expansion of the green technology-based market - Research and develop eco-friendly technologies and products - Strengthen marketing green consumers

Greenhouse Gas Reduction Activities through Energy Efficiency Improvement

Hansol Paper

We are currently pursuing the development of CCUS technology for mid to long-term carbon reduction. We have installed and are currently test-operating the first CO₂ capture pilot facility at our Daejeon plant's incinerator, a first for a domestic paper company. Furthermore, we are developing carbon capture and utilization technologies through an MOU signed with a company possessing membrane separation technology.

Hansol Paper has been implementing activities to reduce greenhouse gas emissions and conserve energy since before the strengthening of carbon neutrality legislation. It has been installing air pollution reduction facilities at each business site, improving process efficiency, converting fuels, recovering waste heat, and introducing high-efficiency processes. In particular, since 2023, the company has been carrying out energy reduction projects to increase the use of renewable energy in the mid to long-term to achieve Net Zero. By installing solar power generation facilities at the Daejeon, Cheonan, and Shintanjin plants, a total of 16.8 TJ of energy was produced in 2024, resulting in a carbon reduction effect of 1,030 tCO₂. This year, the company plans to continuously increase its renewable energy usage by installing solar power facilities at its Janghang plant, with the goal of completion by June 2025.



• 2024.08 Hansol Paper - CCUS Technology Application MOU



Hansol Technics

Hansol Technics is making various efforts to reduce greenhouse gas emissions through energy efficiency and establishing a sustainable management system.

First, in December 2024, it obtained an ISO 50001 energy management system certification, systematizing its energy management level in accordance with international standards. This has led to various positive effects, including optimizing energy consumption, reducing costs, and lowering greenhouse gas emissions, while also enhancing corporate credibility and external competitiveness, alongside eco-friendly management.

Furthermore, at its Jincheon plant, the company efficiently relocated and installed inverters for air conditioning equipment from idle equipment, thereby reducing the number of air changes in the air conditioners and saving on the consumption of city gas (LNG) and electricity. This improvement resulted in annual electricity savings of approximately 40,150 kWh and a reduction in greenhouse gas emissions of approximately 8,000 cubic meters.

In addition, at the Jincheon and Ochang sites, Hansol Technics has installed detailed electricity meters for major electrical equipment and each process, laying the groundwork for the precise analysis of energy usage data. It has established electricity meters at 37 locations in Jincheon and 30 locations in Ochang and is striving for facility optimization by concurrently changing circuit breaker capacities and relocating cables.

These activities fundamentally improve energy efficiency, lead to practical greenhouse gas emission reduction effects, and serve as tangible examples of Hansol Technics' strong implementation toward realizing carbon neutrality.

Hansol IONES

To achieve its energy consumption targets, Hansol IONES has designated energy managers for each department to monitor and control potential energy waste that may occur inadvertently, and has carried out energy reduction activities such as attaching energy-saving promotional posters and stickers within the company. Furthermore, going beyond these efforts, the company is actively implementing measures such as limiting the operation of air conditioners and heating units that are running unnecessarily at its headquarters and Bal-an plant, and installing power-saving switches to prevent unnecessary lighting other than essential power.

Hansol Chemical

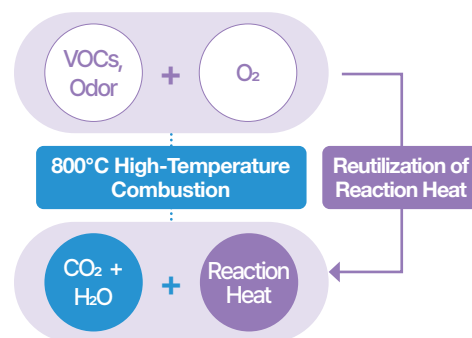
Hansol Chemical has implemented inverter installations, facility optimization, and equipment investments at its Jeonju and Ulsan plants to reduce electricity, steam, and LNG consumption, achieving higher savings than initially targeted.

Plant	Implementation Details	Category	Performance
Jeonju Plant	Inverter installation, optimization of air conditioner operation efficiency across the entire plant, activities to reduce steam loss through steam trap diagnosis, etc	Electricity	6,166,450kwh/year reduction
		Steam	2,236ton/year reduction
		LNG	78,446Nm ³ /year reduction
Ulsan Plant	Optimization of operational efficiency through adjustment of pump operation time	Electricity	400Mwh/year reduction
	1.23 billion KRW facility investment through the discovery of a new waste heat steam company	LNG	50Nm ³ (30%) reduction compared to plan

Tapex

Tapex strategically introduced and operates Regenerative Thermal Oxidizer (RTO) waste heat recovery systems at the Yanggam, Paltan, and Saemangeum plants to reduce energy consumption and greenhouse gas emissions. The RTO waste heat recovery system works by recovering the combustion heat generated during the combustion treatment of high-concentration Volatile Organic Compounds (VOCs) gas, which is generated during the process, using an RTO through a heat exchanger and reusing it to increase the temperature of the heat transfer medium. This prevents combustion heat from being released, thereby reducing energy (LNG) consumption and contributing to a reduction in greenhouse gas emissions.

• Tapex PTO Waste Heat Recovery System



In December 2024, Tapex completely replaced the lighting systems in the administration and factory buildings at its Yanggam plant to reduce energy efficiency and carbon emissions. By replacing a total of 200 fluorescent lights with LED lights, the company achieved an annual CO₂ emission reduction of approximately 3,600 kg compared to the previous fluorescent lights. The transition from existing 64 W fluorescent lights to 50 W LED lights increased energy efficiency by reducing annual energy consumption from 186.9 kWh to 146 kWh and simultaneously decreased annual CO₂ emissions from 82.2 kg to 64.2 kg per fixture. LED lighting has high energy efficiency and a long lifespan. Unlike traditional fluorescent lights, it does not contain harmful substances such as mercury, thereby reducing environmental pollution upon disposal. These LED lighting replacement activities contribute significantly to achieving the company's sustainable management goals of increasing energy efficiency and reducing carbon emissions.

I CIRCULAR ECONOMY

Establishment of Environmental Management System

Hansol Paper

Hansol Paper has established a green management vision: "To achieve a global environmental enterprise by realizing a blue planet." Accordingly, it has established a green management policy framework and strives to harmonize with the environment in all areas of its business activities as an eco-friendly green company.

Basic Principles



Internalizing corporate social responsibility and ethics, and ensuring all aspects of corporate activity are harmonized with the environment.



Realizing progressive environmental management through creativity and a pioneering spirit.



Taking the lead in environmental conservation activities on a global scale.

Environmental Code of Conduct

“ Adherence to the following environmental code of conduct shall be the top management priority for all Hansol personnel ”

- 1** Seek harmony between development and conservation, in all aspects of corporate activity.
- 2** Expand environmentally friendly products and services to minimize the load on the Earth's environment.
- 3** Take the lead in environmental conservation activities to realize environmentally friendly communities.

Hansol Paper has established a green management strategy to systematically conduct green management activities. It has set eco-friendly goals such as reducing greenhouse gas emissions by 15% and increasing the sales ratio of eco-friendly certified products to 60% by 2030. Furthermore, through the Korea Paper Association's monitoring and company-wide environmental division committee, it discusses site-specific risks and response methodologies for new or strengthened environmental regulations and implements improvement plans.

Becoming a world class eco-friendly company by making Earth greener

Responding to opportunity and crisis factors

- Defining risk factors caused by climate change and preparing a response system
- Utilizing the internal decision-making system by considering carbon cost

Expanding Eco-friendly/ Low-carbon Technology

- Introducing new technology to reduce our carbon footprint in the entire production
- Expanding the application of technology to improve recycling and processing efficiency

Policy Engagement

- Actively participating in domestic and international GHG reduction policies such as the emission trading system
- Strengthening policy cooperation on water and air quality and chemicals

GHG Management

- Calculation and verification of GHG emissions
- Disclosure of information on GHG emissions through CDP

GHG Reduction

- Increasing facility efficiency through energy management
- Expanding renewable energy usage
- Continuously identifying tasks for facility efficiency and GHG reduction

Strengthening Cooperation

- Cooperation with partners and nearby businesses to reduce GHG and pollutants
- Reinforcing GHG and pollutant management in the entire production process

Hansol IONES

Hansol IONES established an Environmental Committee on March 16 and 17, 2023 and held related meetings at its Anseong headquarters and Bal-an campus, respectively. The committee plans to hold quarterly meetings in the future to respond to internal and external environmental issues and conduct environmental risk assessments. Through these efforts, it has established a specific goal of achieving a B+ or higher in the environmental aspect of ESG. Accordingly, Hansol IONES plans to actively engage in the ESG environmental sector with the Environmental Committee at the forefront.

Hansol Logistics

In June 2024, Hansol Logistics conducted ESG awareness and eco-friendly management strategy training for all employees to foster a consensus on sustainable management strategies and enhance the understanding of environment-focused management strategies.

Improvement of Waste & Wastewater and Pollutant Management

Hansol PaperTech

In September 2024, Hansol PaperTech replaced a compressor that plays a crucial role in the incinerator (water treatment) process, which is expected to minimize pollutant emissions and promote more stable process operation.

Hansol HomeDeco

Hansol HomeDeco prioritizes the safety of its employees and the local community and is gradually promoting facility improvement investments to reduce environmental and safety risks caused by hazardous chemical substances. In 2025, the company plans to strengthen its hazardous substance management system through two major investments. First, it aims to improve dust collection performance and prevent electric shock accidents and fire hazards due to substandard electrical equipment by improving basic facilities such as replacing the aged bag filter in the recycled chip crushing equipment and installing a circuit breaker. Furthermore, in response to the strengthened handling standards for hazardous substances such as formaldehyde, owing to the revision of the Chemical Substances Control Act, the company also plans to improve related facilities. Through facility improvements including installation of safety valves and leak detectors, modification of drawings, and expansion of protective equipment, it aims to prevent chemical leaks and create a safe working environment that meets legal standards.

Hansol IONES

Hansol IONES identified and supplemented process improvements to reduce waste generation. As a result, waste generation decreased by 70% from 3,017 tons in 2023 to 866 tons in 2024, achieving the target with an amount that was only 60% of the 2024 target of 1,358 tons. Furthermore, the company exceeded its water usage target by using only 119,000 tons of its target of 125,000 tons.

Hansol Chemical

Hansol Chemical is improving its processes to reduce wastewater generation at its plants, increase recycling rates, and reduce the amount of waste generated by optimizing the plant environment and discovering new partner companies.

• Waste Management Activities and Achievements

Plant	Implementation Details	Details	Performance
Ulsan	Reduction of wastewater discharge and concentration of water pollutants	Adjustment of chemical dosage in the process reactor and optimization of the microbial environment in the aeration tank	- Concentration of Total Organic Carbon (TOC), an indicator of water pollutants in wastewater - Reduced by more than 20% compared to 2021, from 17ppm in 2021 to 14ppm in 2023 and 13ppm in 2024
	Reduction of water usage	Recycling of washing water from the benzoyl peroxide process	Annual reduction of approximately 7,000 tons from 687,002 tons in 2023 to 679,923 tons in 2024
	Improvement of waste recycling rate	Recycling of liquid waste organic solvents, previously incinerated, as recycled fuel	Increase in the recycling rate compared to waste generation from 88% in 2023 to 93% in 2024, a 5% improvement
	Reduction of waste generation	Adjustment and automation of coagulant and ferric sulfate input in the wastewater treatment process Minimization of non-recyclable waste discharge	- Reduction in wastewater sludge generation by approximately 10%, from 1,000 tons in 2023 to 900 tons - Reduction of waste oil solids from 16 tons in 2023 to 14 tons in 2024 - Reduction of construction waste soil and rock from 24 tons in 2023 to 14 tons in 2024
Jeonju	Improving the waste recycling rate	Discovery of recycling processing companies	Increase from 80% in 2023 to 84% in 2024, a 4% improvement
		Improving thin film and electronic materials processes	Reduction in waste generation from 7,693 tons in 2023 to 6,926 tons in 2024, approximately a 10% decrease

Hansol Technics

Hansol Technics conducts ESG education for its employees to reduce waste and increase the recycling rate, enhancing eco-friendly awareness and the practice of waste separation by increasing the understanding of the items and main types of generated waste. In particular, as a result of continuous efforts such as actively seeking out recycling companies even if it costs more than landfill disposal, the recycling rate has steadily improved from 85% in 2022 to 94% in 2023, and further to 98% in 2024. In the future, Hansol Technics will strive to establish a company-wide resource circulation culture through internal campaigns to achieve a 100% recycling rate and reduce waste generation.

Tapex

In 2024, Tapex established a real-time air pollution prevention facility monitoring system based on the IoT across all its sites, including Yanggam, Piltan, Unilab, and Saemangeum plants. This system enables the remote monitoring of the proper operation of emission and prevention facilities without the need for on-site visits, allowing for proactive environmental management through the reduction of fine dust emissions.



Revitalization of Circular Economy

Hansol Paper

Sterile cartons have long been recognized as a difficult-to-recycle material. Despite the increasing shipment volume and proportion of sterile cartons each year (27,000 tons in 2020 and 32,000 tons in 2022), their multi-layered composite structure makes separation challenging, and they are difficult to process using existing paper carton recycling facilities. Therefore, Hansol Paper has collaborated with 12 food companies to address this issue and establish a new circular economy model for sterile cartons. At its Daejeon plant, the company has developed a plan to recycle sterile cartons as a raw material for white board and utilize aluminum and PE residues as raw materials for plastic products. This allows sterile cartons to be reborn as a valuable resource rather than as waste. In May 2024, Hansol Paper signed a MOU with the Ministry of Environment to establish a resource circulation system for sterile cartons, creating a support system for the stable collection and expanded recycling of sterile cartons. Through this agreement, the company plans to efficiently operate the collection and sorting process of sterile cartons and gradually improve the recycling rate of sterile cartons based on Hansol Paper's recycling technology. Furthermore, sterile cartons recycled white board has been designated as an item eligible for Good Recycled (GR) certification, and the company is pursuing GR certification to gain recognition for its eco-friendliness and expects to expand its market share.

• Ministry of Environment Sterile Cartons Resource Circulation MOU

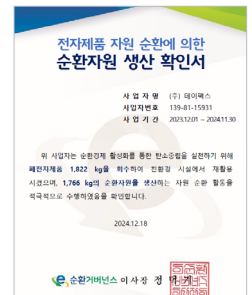


Tapex

Since October 2022, Tapex has continuously promoted employee-participating resource circulation campaigns in cooperation with the Korea Electronics Recycling Cooperative (KERC). By recovering waste electrical and electronic equipment, the company has contributed to carbon reduction by producing circular resources and, furthermore, donated the proceeds from the sale of used mobile phones to the local community.

• Carbon Reduction Activities and Expected Effects

Details	Expected Effects
1. Employee-participating resource circulation campaign in cooperation with the Korea Electronics Recycling Cooperative (KERC) (Jun-July 2024) Production of circular resources through the collection of waste electrical and electronic equipment Sale of used mobile phones	Enhancing employees' ESG awareness, promoting public benefit, and creating social value through resource circulation Participation of 95 employees Total of 1,822kg collected, 1,766kg of circular resources produced Resulting in a carbon reduction effect of 4,949kgCO ₂ eq Proceeds donated to the Blue Asia Foundation
2. Beachcombing (beach cleanup) activities (Apr 2024) Joint public-private-government environmental cleanup within the Saemangeum Industrial Complex in cooperation with the Saemangeum Development Administration, Saemangeum Development Corporation, Korea Rural Community Corporation, etc (Oct 2024) Participation of 24 employees, approximately 280kg of waste collected (20 bags)	Strengthening ties with the local community and contributing to the protection of the marine ecosystem Strengthening efforts for environmental protection and sustainable development Improving the marine environment and natural landscape of the local community and preserving biodiversity



Biodiversity Conservation Activities

Hansol Group

Fifty-eight new employees of the 34th Hansol Group open recruitment participated in beachcombing activities at Jeongdongjin Beach in Gangwon-do during their orientation period. Beachcombing is an environmental cleanup campaign that involves collecting waste from the beach, and the new employees contributed to preserving the beautiful coastline and protecting the marine ecosystem. Through this activity, they understood the importance of environmental protection and had time to reflect on the role of Hansol members in creating a sustainable society.



Hansol Paper

Since the adoption of Songnim Baeksa Beach in Janghang-eup, Seocheon-gun as a companion beach in September 2021, Hansol Paper's Janghang plant has been carrying out continuous cleanup activities every year. In 2024, beach cleanup activities were conducted three times in May, June, and November, with employees participating in each activity to collect waste and perform sorting tasks. This year, the company expanded its marine ecosystem protection activities by strengthening the collection of discarded fishing gear and microplastics in addition to existing household waste. Hansol Paper plans to continue these ecosystem conservation activities in the future and contribute to environmental protection in cooperation with local communities and environmental organizations.



Hansol PaperTech

Approximately 50 employees of Hansol PaperTech, together with local residents, held a 'One Company, One Stream Cleanup' event as part of their community contribution and environmental protection activities in a nearby village, collecting about 300 kg of waste left abandoned near the factory.



HansolTechnics

To fulfill its corporate social responsibility and promote coexistence with the local community, Hansol Technics has been regularly conducting local environmental cleanup activities every year since 2023. These activities go beyond simple one-time campaigns and have become established as part of sustainable social contribution initiatives in which all company members participate.

In October 2024, employees voluntarily participated in local cleanup campaigns in Jincheon and Ochang. They made practical efforts to improve the local environment by collecting and sorting discarded cigarette butts, household waste, and industrial waste, focusing on nearby villages, streets, and pedestrian paths around the industrial complex of each business site.



Through this activity, Hansol Technics demonstrated its responsibility as a member of the local community by creating a clean and pleasant environment and contributing to ecosystem protection activities. In the future, under the slogan 'Creating a Beautiful Region, a Clean Neighborhood,' Hansol Technics plans to continuously carry out various activities to improve the local environment, protect the ecosystem, and realize social values.

Hansol HomeDeco

Hansol HomeDeco operates 'HomeDeco Together' as a social contribution activity for ecosystem conservation and biodiversity protection. This program is an environmental improvement activity conducted bimonthly at the Yeouido Saetgang Ecological Park, with the primary goals of natural habitat preservation and ecological environment restoration. Initiated in 2023, the activities are carried out in various ways, including water purification through the planting of aquatic plants, installation of otter protection zone fences using recycled wood, planting of trees and landscaping within the park. Through these efforts, Hansol HomeDeco is supporting the recovery of the local ecosystem and continuously striving to contribute to the establishment of a sustainable environment and biodiversity conservation.

Carbon Footprint Verification and Assessment

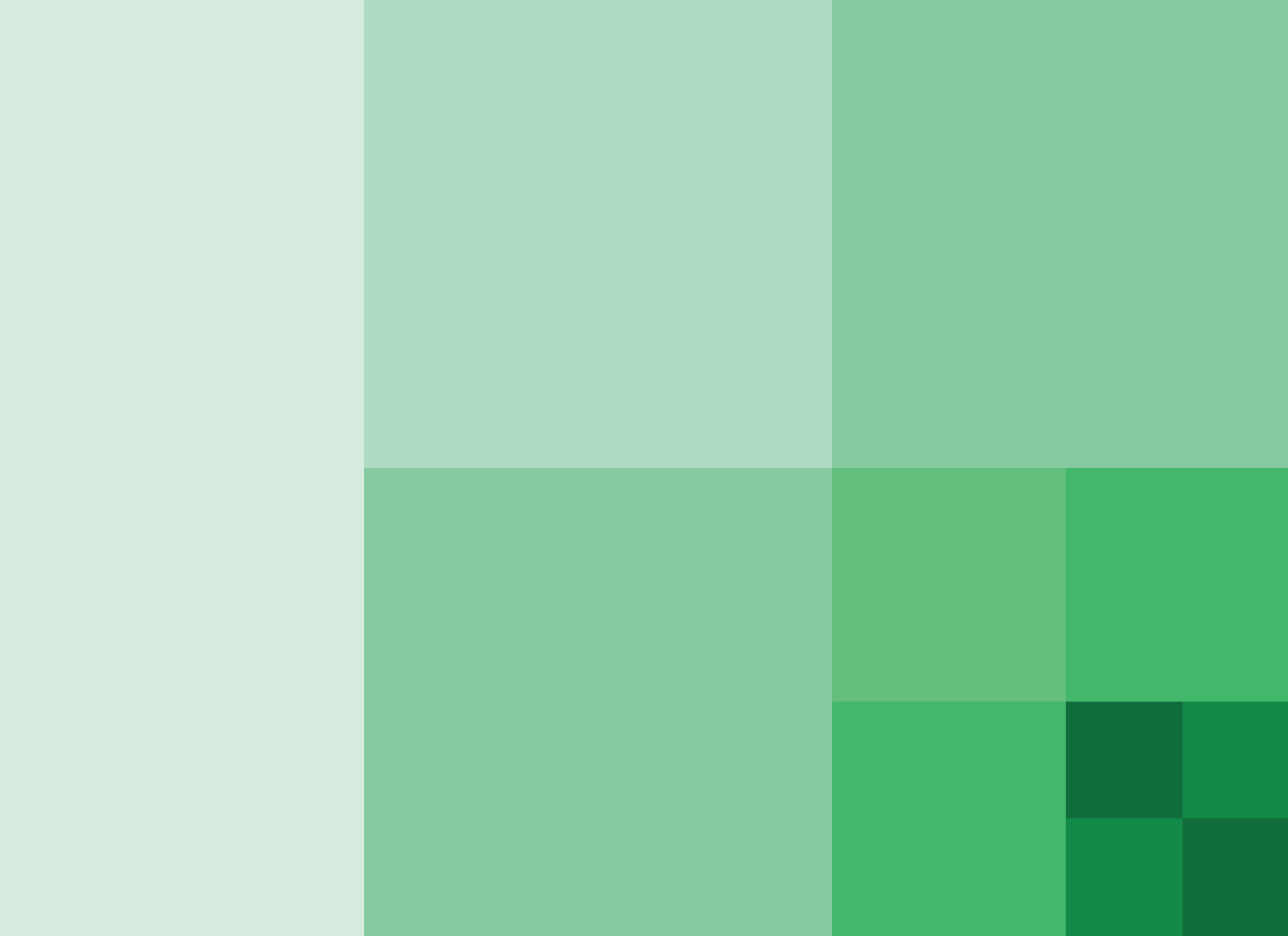
Tapex

Tapex is strengthening its environmental impact assessment of the entire product lifecycle (Life Cycle Assessment, LCA) to secure eco-friendly competitiveness. Following the initial application of LCA to one type of secondary battery tape (3331 AW), which plays a crucial role in ensuring the safety of electric vehicle batteries, in June 2022, the company assessed an additional item (3131 RH) in November 2023. LCA is a tool for systematically managing environmental impact by quantitatively analyzing greenhouse gas emissions throughout the entire process from raw material extraction to production, distribution, use, and disposal. By securing environmental performance data for its products through LCA, Tapex has established a foundation for entering the European market, where ESG regulations are strengthened, and can respond to the eco-friendly supply chain management requirements of global automotive and battery manufacturers. In particular, LCA results can be used to secure reliability, such as obtaining the Environmental Product Declaration (EPD) certification from the Ministry of Environment, and serve as basic data for future sustainable management strategy establishment and product improvement. Furthermore, by proactively responding to the eco-friendly supply chain management demands of customers in the global market, especially in the European market with strict ESG regulations, Tapex has laid an important foundation for expanding business opportunities with automotive and electric vehicle battery manufacturers.



4

SOCIAL



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60	Employee
79	Community
87	Supply Chain Management
91	Strengthening Information Security

SUSTAINABLE GROWTH THROUGH STAKEHOLDER ENGAGEMENT



All affiliates

**Maintain a
0% Accident
Rate for Partners**



**Strengthening
the Occupational
Health and
Safety System**

Expansion of HSRS
Rating System and ISO
45001 Certification



**Employee
Participation**

Social Contribution

2. Supply Chain Management

Shared Growth with Partners

- **Hansol Paper** Various Cooperation and Support Activities to Support the Shared Growth of Partners
- **Hansol PNS** Promoting Open Innovation to Build a Collaborative Ecosystem



2. Strengthening Information Security

Open Innovation

- **Hansol Paper** Implementing Information Security Activities in accordance with the Company-wide Information Protection Policy
- **Tapex** Acquisition of TISAX, the Global Automotive Industry Information Security Certification



Hansol Group aims to create sustainable social value through the growth of its employees, shared growth with its partners, and co-prosperity with the local community. At the Group level, it has established a company-wide management system that encompasses talent development, occupational health and safety, information security, and supply chain management. Furthermore, it fulfills its social responsibility by addressing local community issues and expanding its social contribution activities. The Group is continuously striving to create a safe workplace and support its partners to encourage employee participation and achieve a zero accident rate.

1. Shared Growth with Employees

Talent Development

- **Hansol Logistics** Implementation of Retention Programs (Mentoring, Field Trips, etc) and Organizational Culture Programs
- **Hansol IONES** Operation of Employee Training Programs to Enhance Employee Growth and Work Efficiency

Human Rights Management

- **Hansol PNS** Operation of Psychological Counseling and Support Programs
- **Hansol Logistics** Implementation of Anti-bullying and Sexual Harassment Prevention Training in the Workplace

Safety Management

- **Hansol Group** Continuous Efforts to Introduce and Activate HSRS, a Safety and Health Assessment System
- **Hansol PNS** Conducting Training through the Operation of Safety Day
- **Hansol Paper/Technics** Operation of a Safety Management Team Directly under the CEO

Organizational Culture

- **Hansol IONES** Implementation of a No-smoking Campaign to Promote Employee Health
- **Hansol IONES** Expanding Communication between the Company and Employees through the Operation of the Internal Grievance Handling System "Aureum Connect"

3. Shared Growth & Sharing Management with the Community

Expanding Social Contribution Activities

- **Hansol Paper**
Scholarships, Scholarship Grants, Volunteer Activities, etc
- **Hansol IONES**
Supporting Vulnerable Groups in Anseong City
- **Tapex**
Expanding the Utilization of Community Contribution

Addressing Social Issues

- **Hansol Group**
Operating a Virtual Internship Program in Cooperation with the Ministry of Employment and Labor
- **Hansol IONES**
Blood Donation through an In-house Campaign

Enhancing Corporate & Customer Value

- **Hansol Inticube**
Hosting Seminars on Changes in the Technological Environment
- **Tapex**
Promoting the Advancement of ESG for Sustainable Management and Exploring Entry into the Global Market

EMPLOYEES

Talent Development

Employee Growth Support Program

Hansol Paper

Based on four core principles—work-life balance, fair evaluation and compensation, opportunities for growth, and value enhancement through learning—Hansol Paper actively supports its employees in maximizing their potential.

By abolishing the dress code, introducing flexible work systems such as flexible working hours and self-directed commuting, and offering various leave programs including parental and childcare leave as well as a sabbatical system for team leaders, the company has fostered an autonomous and family-friendly work environment.

In addition, Hansol Paper operates practical welfare programs such as financial support for family events, educational expenses, and housing, helping to ensure the stability of employees' lives. Long-serving and retiring employees are also provided paid leave, vacation allowances, and reemployment support services. In particular, Hansol Paper has been recognized for its efforts to promote work-life balance and respect for diversity—such as encouraging parental leave, providing health checkups, organizing children's camps, and supporting women's career continuity—by achieving Family-Friendly Certification for two consecutive years.

Hansol Technics

Hansol Technics continuously supports the growth of its employees with the core objectives of strengthening job expertise and establishing a self-directed learning culture. The company operates the following talent development programs to ensure competitiveness amidst the changing industrial environment:

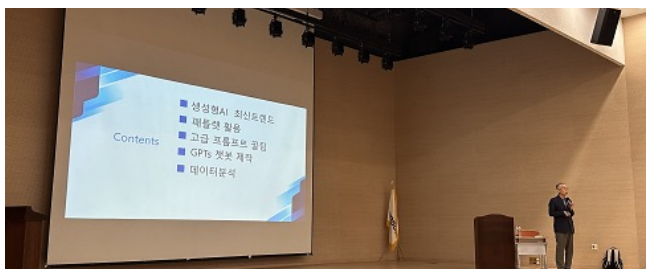
- Operation of job/function-specific academies to enhance job expertise
- Operation of self-study groups
- Provision of various online/offline learning platforms
- Operation of language programs
- Leadership and organizational activation programs
- Onboarding program

Hansol IONES

Hansol IONES operates various employee training programs to support the continuous growth and improvement of employees' work efficiency in the business environment.

In particular, it supported the strengthening of management capabilities by conducting special labor lectures for managers, providing practical knowledge necessary for personnel and labor management. In addition, it contributed to strengthening expertise and improving capabilities within the organization by conducting special lectures on work efficiency using generative AI technology for all employees.

In this way, Hansol IONES plans to continuously expand its systematic education programs so that employees can learn the latest trends and technologies and respond flexibly to changes.



Hansol Logistics

Hansol Logistics implements various retention programs (e.g., reverse mentoring, voluntary learning organizations, field trips, welcome kit provision, etc.) and organizational culture strengthening activities to secure excellent talent and facilitate the early adaptation of new employees. In addition, to support employee engagement and growth, the company operates various compensation systems such as sales incentives and a monthly outstanding employee selection program to motivate employees and enhance work engagement. Furthermore, it supports employees in gaining diverse work experience and growing into multi-skilled individuals by operating a Free Agent (FA) system and job rotation programs. It also helps employees continuously develop their professional job skills through in-house and external MBA programs and readily accessible M-learning.

Tapex

Since the end of 2022, Tapex has been operating a systematic talent development program to ensure the successful integration and competency enhancement of outstanding talent within the organization. Through these systematic programs, we provide an environment in which new hires can quickly adapt to the organization and grow into key personnel.

• Talent Development Programs and Activities

Category	Activity	Effect
Employee Program	Systematic on the Job(S-OJT), process management, processing, coating, compounding, quality control, etc.	Successful integration of outstanding talent within the organization, competency enhancement.
Employee Training	Environmental Training: 21 Sessions Social Training: 20 Sessions	Contributes to enhancing understanding and belonging to the corporate culture, long-term talent retention.
New Employee Program	Providing food and beverage support & emotional support activities to “House of Hope” (a regularly sponsored organization), meeting with the CFO, 6-month 1:1 mentoring.	Motivation and sense of belonging, early settlement and competency enhancement of new employees.

Competency Assessment-Based

To support the self-directed competency development of its employees, Hansol Group operates a competency assessment-based personalized learning curation system (LMS). This system is designed to allow employees to identify their individual growth points through competency assessments and establish Individual Development Plans (IDPs) and Career Development Plans (CDPs) based on these points.

Through AI analysis that reflects individual learning history and needs, the system provides personalized recommendations for necessary training courses, online content, video materials, and more, while also systematically managing the learning history. Through this, Hansol Group aims to spread a company-wide learning culture and create a learning ecosystem in which employees can grow autonomously.

• Performance of Employee Training Program

Affiliate	Performance of Self Development Plan		Self-directed learning by Affiliates	
	Progress	Professional Competency Training	CoP	Mentoring
Hansol Paper	96.9%	4 job functions, 117 in-house training sessions complete	32 organizations including the Master of Accounting 218 active participants	- Production technology positions conducted for 1 year (12 sessions) - Sales/support positions conducted for 3 months (3 sessions)
Hansol Paper Tech	73%	External job training (17 persons)	-	- Mentoring for newly hired production engineers - Mentoring for sales managers in progress
Hansol PNS Paper Distribution Division	92%	Keeping the sales OJT training manual up to date	- Fostering communication among the community of lower-level employees - Arrangement of meetings by level	-
Hansol PNS IT Service Division	94%	- Job-skills training course (166 persons) - External learning opportunities (45 persons)	Hansol Developer Festival	Frequent mentoring
Hansol Technics	94%	- R&D Technology Exchange Seminar - PADS Designer, Layout training (12 persons)	114 active participants of 10 learning clubs including EOC, Python, and reading	- Mentoring performed from February ~ August for new-hires (six persons) - Mentoring performed from May ~ July for newly hired female workers (four persons) - TV development mentoring (24 teams)
Hansol IONES	90%	- External job training (134 persons, 239 sessions) - Leadership Competency Enhancement Training for managers (52 persons) - Organizational vitalization Training for General Staff (224 persons)	-	Introduction of Mentoring Program in the Second Half of 2024 (21 New/Experienced Employees)
Hansol Logistics	86%	- Seven training sessions completed (seven persons) - Support for individuals' external job training (14 persons)	Support for license acquisition including the 2024 Certified Professional Logistician course	- Trial run of the mentoring program in the third quarter (Competency improvement through actual site visit) - Review of standards and eligibility for applying for the mentoring program
Hansol HomeDeco	72%	- Lasola Interior Academy - Nurturing Biz Insighters (17 persons) - Support for furniture and interior fairs	- Announcement of OPL production / quality improvement (119 persons) - In-house library (purchase of books, quarterly)	Operation of a junior academy (targeting new-hires at plants)
Hansol Inticube	96%	Internal sales seminar (once a month, 12 times in total)	-	-

HMS Development System

The HMS Development System serve as Hansol Group's talent development roadmap for strengthening future competitiveness. It is structured based on systematic training programs that encompass all employee levels. Through customized training tailored to each job grade and role, the competencies of employees are progressively enhanced, thereby promoting not only individual growth but also performance improvement of the entire organization.

• Hansol Group HMS Talent Development System

Role	Job Expert		Performance Owner	Business Owner	CEO
Roadmap Category	Senior, Staff	Manager, Principal	Leader	Executive	CEO
Leadership Development Roadmap	New Employee Retention Program	Team Leader Candidate Program	Executive Candidate Program	CEO Competency Development Program (Coaching)	
		Principal Manager Promotion Program	HCLP		
	New Employee Onboarding Program	In-house MBA Program	Team Leader Advanced Leadership Program (New)	Executive Specialist Program (External Expert Program)	
		Manager Promotion Program	New Team Leader Program (New)	New Executive Program	
	Training for Experienced Hires				
Job Competency	Interviewer Training		Job Expertise Enhancement Program		
	H-CAMPUS				
Our Principles Business - Organization	Mandatory Onboarding Education	RESPECT Leadership Program			
	Mandatory Legal Training & Human Rights Education				

Hansol Group's HMS Competency Model follows a structure in which the competencies required at each leadership level progressively accumulate and expand toward higher levels. This signifies that, as leaders advance in rank or position, broader and more in-depth competencies are required. This model focuses on objectively diagnosing an individual's current competency level, identifying strengths and areas for improvement, and guiding continuous competency development and growth.

Job Expert		Performance Owner	Business Owner	CEO
Senior, Staff	Manager, Principal	Leader	Executive	CEO
(C)Interpersonal Relationships (N)Demonstrating Creativity (B)Innovation Techniques (B)Demonstrating Work Efficiency (B)Adherence to Basics (B)Job Expertise	(C)Embracing Diversity (N)Coordination & Negotiation (N)Strategic Thinking (B)Innovation Execution (B)Problem Solving (B)Compliance Management (B)Job Expertise	(C)Market Sensing (N)Developing Department Strategy (B)Performance Management (B)Developing Team Members (B)Decision Making (B)Job Expertise	(N)Presenting Vision & Strategy (N)Business Model Innovation (C)Market Sensing (C)Business Networking (B)Succession Management (B)Leading Innovation & Change Management (B)Job Expertise	
Business Principles				
Customer Focus	New Value	Better Ways	Differentiated Competitive Advantage	
Organizational Principles				
Immersion Positive Emotion, Fostering a Sense of Unity, Focus on Work	Transparency Ethical Awareness, Responsibility Adherence to Principles	Respect Mutual Respect, Respect for Diversity	Speed Logical Judgment, Strong Initiative	

Excellent Talent Recruitment Process

Hansol PNS

The Paper Distribution Division of Hansol PNS operates competency enhancement training, core job talent management, and a FA (Free Agent) system to secure and manage diverse talent.

Hansol Logistics

Hansol Logistics is implementing processes to recruit excellent talent.

Category	Assessment Name	Purpose
Open Recruitment	Spec Diet Campaign	Eliminate unnecessary items in the job application
	Hansol UP Challenge (Externship) Selection	Verify job competency and organizational fit
Experienced Talent Recruitment	Culture Fit Interview Stage	Preliminary judgment of organizational fit
	AI Job Competency Assessment	Efficient and objective verification of job competency

Hansol IONES

Hansol IONES has established industry-academia collaborations to recruit excellent talent.

Industry-Academia Collaboration - Partner Schools	Total of 4 high schools (including Suwon Hitech High School, etc.)
Purpose of Agreement)	Discovering and fostering excellent talent
Key Contents	Providing job opportunities and enhancing job understanding through practical experience combined with theoretical education
Expected Effects	- Expanded practical job opportunities for students - Improved job understanding - Strengthened company recruitment branding
Future Plans	Continuously promote industry-academia collaboration and attract diverse talent → Contribute to sustainable growth

Tapex

Tapex operates diverse talent acquisition channels to enhance corporate competitiveness and realize sustainable growth. Through these diverse recruitment methods, Tapex is revitalizing its organization, enhancing corporate recognition and competitiveness, and building a corporate culture of growth alongside outstanding talent.

Channel	Description	Compensation&Effects
Employee Referral Program	Recruitment through referrals for salaried, hourly, entry-level, and experienced positions	Referral bonus paid if the referred employee works for more than 1 year (2024: KRW 4 million bonus paid)
Open Recruitment for University Graduates	Conducted regularly in the second half of each year	Secured 10 outstanding talents in 2022, 8 in 2023, and 10 in 2024

Employment Diversity

Affiliate	Activity Details
Hansol Logistics	Disability awareness training in the workplace
Hansol Chemical	Female executive ratio: 9.1% → 10%
Tapex	- Currently employing 6 workers with disabilities - Placement and employment in telecommuting roles (Customer Service, Design, General Affairs)

Human Rights Management

Mid to Long-term Goals

Hansol Group

Hansol Holdings considers respect for human rights a core value and has been building a systematic implementation foundation since its Human Rights Management Declaration in 2022. Internal guidelines, which clearly define the concept of human rights and the direction of human rights management, comprehensively cover types of human rights violations and grievance procedures, and their scope of application includes the headquarters affiliates, executives and employees, customers, and partner companies.

In addition, various channels such as “Red Whistle” are in operation to allow anyone to freely report issues related to human rights, and reported matters are handled according to prompt and transparent procedures. A trust-based human rights management system is maintained by providing whistleblowers with detailed feedback, including the processing results.

Human rights management is being progressively expanded and applied, focusing on key affiliates, each of which has established and operates systematic guidelines and implementation systems to prevent human rights violations and respond to risks. To date, six affiliates, including Hansol Paper, have completed their human rights management declarations and publicly disclose the related guidelines on their official websites. In particular, Hansol Technics and Hansol Logistics are promoting a phased implementation plan in 2025 based on mid to long-term human rights management goals, focusing on securing practical enforceability through internal training and the establishment of risk response systems.

In the future, Hansol Group plans to continuously raise awareness of human rights among its employees and make multifaceted efforts to ensure that a culture of respect for human rights is established throughout the company.

• Number of Human Rights-Related Complaints Received and Resolved by Affiliate in 2024

Category	Hansol Holdings	Hansol Paper	Hansol PaperTech	Hansol PNS	Hansol Technics	Hansol IONES	Hansol Logistics	Hansol HomeDeco	Hansol Inticube	Hansol Chemical	Tapex
Feedback collected	0	2	0	4	0	0	0	0	0	0	0
No. of cases handled	0	2	0	4	0	0	0	0	0	0	0

• Declaration of Human Rights Management

Hansol Holdings is dedicated to upholding human rights for its employees and all stakeholders, striving to implement human rights management effectively.

Hansol Holdings supports international human rights principles, including the UN Universal Declaration of Human Rights, the UN Guiding Principles on Business and Human Rights, and the International Labor Organization (ILO) Declaration. We commit to complying with domestic laws that reflect these principles.

Hansol Holdings will proactively prevent and eliminate elements that could infringe upon human rights. Should any human rights issues arise, we will respond swiftly and do our utmost to resolve them fundamentally.

These Human Rights Management Guidelines apply to Hansol Holdings' headquarters, its affiliates, and their members. Furthermore, we encourage our business partners and service users to understand and practice Hansol Holdings' human rights management principles.

Prohibition of forced labor

Hansol Holdings avoids compelling employees to work against their will and complies with labor laws, regulations on overtime, days off, and regular working hours, ensuring no mandatory overtime.

Prohibition of child labor

In principle, Hansol Holdings prohibits child labor. Additionally, young workers are not engaged in hazardous work in terms of safety and health.

Guarantee of occupational safety

Hansol Holdings reorganizes the system to ensure the safety and health of all employees, regularly conducts pertinent training, and complies with the relevant laws and internal regulations.

Guarantee of environmental rights

Hansol Holdings aims to create a world in which we share a better future. We will consider solving the social issues that may arise now or in the future and practice eco-friendly activities.

Consumer human rights protection

Hansol Holdings strives to create an environment in which all users can safely and conveniently use our technologies, services, and products.

Protection of personal information

Hansol Holdings collects, records, and stores personal information in compliance with laws and regulations, preventing unauthorized access to this data through secure management systems.

Provision of information of third parties

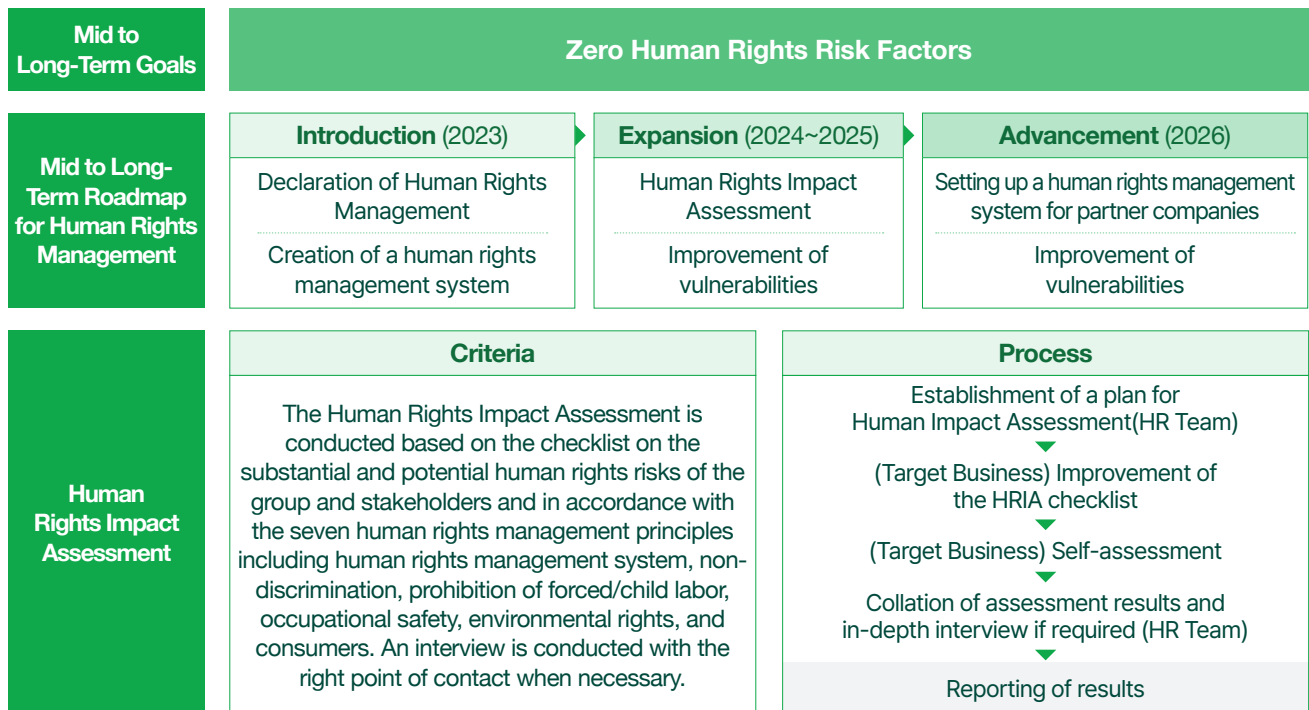
User information is not provided to third parties except with the user's consent or as permitted by law.

Hansol Technics

Hansol Technics has established mid to long-term human rights management goals and is systematically realizing human rights management. In 2024, it regularly reviewed basic-level human rights checklists and promoted improvement activities based on the results to proactively prevent human rights risks.

Furthermore, the checklist is implemented every year to monitor the level of human rights protection. By 2025, the company plans to expand its human rights management system to a more in-depth level, focusing on implementing applicable areas within the basic stages of advanced-level items.

• Hansol Technics' Mid to Long-Term Human Rights Management Roadmap



Hansol Logistics

• Hansol Logistics' Mid to Long-Term Human Rights Management Roadmap

Activity	2024	2025	2026
Human rights management training	• Employee training session held once a year	• Employee training session held twice a year	• Employee training session held twice a year
Establishment and posting of Human Rights Management Declaration and Guidelines		• Assessment and improvement of human rights violation remedies	• Revision of the Human Rights Management Declaration and Guidelines
Human Rights Compliance Management	• One compliance inspection related to human rights	• One compliance inspection related to human rights • Upgrading compliance inspection items related to human rights	• One compliance inspection related to human rights • Upgrading compliance inspection items related to human rights

Establishment of Operating Guidelines

Hansol Group has revamped its employee counseling program to extend psychological support not only to employees but also to their families. The newly improved program is structured to provide counseling through external professional centers for a wide range of concerns, including human rights violations, work stress, organizational conflict, burnout, and interpersonal issues. Key features include guaranteed anonymity and enhanced accessibility through a mobile application, allowing easy connection with experts regardless of time or location.

Hansol Paper

Hansol Paper established a human rights management roadmap in 2023 with the goal of zero human rights violation risks and compliance with domestic and international regulations, and built a human rights management system as a foundational step. In 2024, it deepened this by conducting a human rights impact assessment, which identified the need for improvement in 3 out of 100 assessment items. The main areas for improvement were system establishment-related items such as “Institutionalization of Human Rights Management Measures” and “Implementation of Human Rights-Related Programs.” In terms of ensuring industrial safety, the “Workplace Safety” item was identified as requiring improvement; however, the results of the workplace environment measurement in the first half of 2024 confirmed that there were no issues related to noise or chemical substances.

• Performance and Plans According to the Human Rights Management Roadmap

Our company Subsidiary Partner company

Category	Content	Details	Target	Year of Implementation				Performance and Plans
				2023	2024	2025	2026	
Basic Stage	Establishment of Human Rights Management System	• Establishment of Human Rights Management System	-					Completed
		• Declaration/Disclosure of Human Rights Management (Website, Sustainability Report)	-					Completed
		• Enactment of Implementation Regulations	-					Completed
Advanced Stage	Human Rights Impact Assessment	• Site Assessment	Internal					October 2024
		• Company-wide Assessment						
	Stakeholder Expansion	• Establishment of Human Rights Management System	Subsidiary Partner Company					
		• Declaration/Disclosure of Human Rights Management (Website, Sustainability Report)						
		• Enactment of Implementation Regulations						
		• Introduction of Human Rights Impact Assessment						

Safety Management

Health and Safety Rating System (HSRS) and Communication Management

To improve the efficiency of safety and health management and establish a field-oriented management system, Hansol Group introduced its own safety and health rating system, HSRS, in 2022, reflecting the unique characteristics of its businesses. HSRS has expanded its compliance targets with domestic regulations, aiming for Levels 5 to 7, and is pursuing growth in the level of safety management.

In particular, in 2024, some business sites, such as Hansol Logistics and Hansol Paper's Shintanjin plant, aimed to achieve Level 7 by strengthening field-based execution and enhancing systematic responsiveness. The 2024 HSRS assessment was operated with more systematic standards and a grading system than the 2023 assessment. As a result, the overall average score reached 88.1 points, an increase of approximately 5 points from the previous year. Notably, significant improvements were made in areas such as "risk control," "system monitoring," and "emergency response," with all evaluated affiliates achieving Level 6 or higher—a remarkable accomplishment.

Meanwhile, the system for receiving and handling on-site safety and health grievances from partner company employees has also been expanded and is now operated across all affiliates to prevent accidents and improve occupational health and safety. For business sites certified with Safety and Health Management System 45001 and KOSHA MS, communication has been further strengthened through the activities of the Occupational Safety and Health Committee.

Hansol Group will continue to strengthen executive leadership across the Group to establish a safety and health culture, aiming to complete an integrated safety management system that covers not only legal requirements but also additional areas. In addition, the company plans to reinforce both quantitative indicators, including frequency and lost-time injury rates, and overall responsibility and commitment in health management, such as leadership, planning, execution, and performance management.

• Number of Occupational Health and Safety Grievances Received and Addressed by Hansol Group Employees in 2024

Company	Hansol Holdings	Hansol Paper	Hansol PaperTech	Hansol PNS	Hansol Technics	Hansol IONES	Hansol Logistics	Hansol HomeDeco	Hansol Inticube	Hansol Chemical	Tapex
Receipt of grievance reports	0	0	0	0	0	0	0	0	0	0	0
NO. of grievance resolutions	0	0	0	0	0	0	0	0	0	0	0
Lost Time Injury Rate	0	0	0	0	0	0	0	0	0	0	0

• Occupational Health and Safety Grievances Received and Addressed for Partner Company Employees in 2024

Company	Hansol Holdings	Hansol Paper	Hansol PaperTech	Hansol PNS	Hansol Technics	Hansol IONES	Hansol Logistics	Hansol HomeDeco	Hansol Inticube	Hansol Chemical	Tapex
Receipt of grievance reports	0	0	0	0	0	0	0	0	0	17	0
NO. of grievance resolutions	0	0	0	0	0	0	0	0	0	17	0
Lost Time Injury Rate	0	0	0	0	0	0	0	0	0	0	0

• 2024 HSRS Evaluation Grades

Lv.	Criteria for Level	Standard	Description of Standard	2023	2024
7	90 points on average (lowest score of 70 points) ↑	Progressive	A stage in which members show a high level of safety consciousness and the management sets an example	Hansol Paper (Janghang)	Hansol Paper (Shintanjin), Hansol Logistics
6	85 points on average (lowest score of 70 points) ↑	Preventive	A stage in which members at the site voluntarily analyze the pros/cons of the work and make continuous improvements	Hansol Paper (Shintanjin), Hansol Paper (Cheonan), Hansol Logistics, Hansol HomeDeco	Hansol Paper (Daejeon), Hansol Paper (Cheonan), Hansol Paper (Environment), Hansol Technics, Hansol IONES, Hansol HomeDeco
5	80 points on average (lowest score of 60 points) ↑	Active expression	A stage in which safety management led by safety officers and site managers or supervisors is working effectively	Hansol Paper (Daejeon), Hansol Paper (Environment)	Hansol PaperTech
4	60 points on average (lowest score of 40 points) ↑	Passive	A stage in which all necessary systems are prepared, but members of the organization are not demonstrating active participation or responsibility	Hansol PaperTech, Hansol Technics	
3	50 points on average (lowest score of 20 points) ↑	Calculative	A stage in which understanding of the key process for loss prevention is insufficient		
2	40 points on average (lowest score of 20 points) ↑	Reactive	A stage in which members are only willing to demonstrate change in the event of an issue or incident		
1	30 points on average (lowest score of 10 points) ↑	Indifference	A stage in which members do not recognize the need for a system and makes zero investment in improving safety behaviors		

• Evaluation Factors of HSRS

1	Leadership	The system presents leadership requirements including promoting the health and safety management system at sites, legal compliance (Serious Accidents Punishment Act, Occupational Safety and Health Act, etc.), principles for Hansol Group's safety and health leadership, and R&R for HS performance, and carries out assessments.
2	System Planning	The system presents principles for identifying and evaluating safety and health risks and opportunities, as well as principles for decision-making on the management tools. It also conducts evaluation of each business's overall process, activities, and risks associated with change, and presents ways for effective management.
3	Human Resources Management	The system presents the competency requirements of human resources that should be met for the effective execution of the HSRS, defines the R&Rs required of the management and the entire Production Division, and conducts assessments of the appropriateness of activities.
4	Compliance	The system provides guidance on the safety and health laws applied to each site, rules, and principles for complying with customer requirements, identifies policies to adhere to, and specifies reporting system and compliance assessment.
5	Risk Assessment	The system clearly states the need for education and training for understanding and securing the level of competency required for driving safety and health outcomes, fosters safety and health professionals, sets forth policies on key competencies required of partner companies and mandatory training courses, and assesses if such activities are executed.
6	Communication	The system proposes principles for communication within and outside the organization, defines the scope of activity for all engagements, discussions, and communication related to health and safety within the company, and conducts assessments on execution.
7	Risk Assessment	The system sets forth safety and health management activities to control and manage identified risks in a hierarchical structure, and conducts assessments on whether required actions were taken by the person(s) granted roles and responsibilities.
8	Risk Control	The system clearly states the standard for facility and device maintenance and inspection, establishes a comprehensive standard of the potential safety and health risks in the event of change, and performs assessments on appropriate management.
9	Contractor/Supplier	The system performs evaluations on the safety and health management aspects of suppliers during the selection stage, evaluation of onboarded suppliers' health and safety activities, introduces standards for communication, and proposes management standards to encourage supplier engagement.
10	Emergency Response	The system proposes standards to minimize losses caused by identification, response, training, and communication associated with internal and external emergencies, and conducts assessments of appropriate activities.
11	Incident Learning	The system defines standards for accident reporting and investigation, identification of near misses / potential nonconformities, investigation and analysis of incidents, and improvement activities through corrective preventive measures. The system also conducts evaluations of the appropriateness of tracking and management activities to prevent reoccurrence of such accidents.
12	System Monitoring	The system reviews and evaluates the safety and health performance, effectiveness and efficiency of the monitoring function, effectiveness of its management function, and observation of the work and adequacy of internal audits, to evaluate the appropriateness of quantitative figures related to risk-management activities.
13	Performance Review	The system compares safety and health goals against actual performance to derive improvements in the correlation between plans and actuals, and management of the process.

Safety and Health Management

Hansol PNS

Hansol PNS's Paper Distribution Division operates "Safety Day" every second Wednesday of the month to conduct safety inspections and employee safety training, and reports the results to management.

Hansol Technics

To respond proactively to the Serious Accidents Punishment Act (SAPA), Hansol Technics operates a safety management team directly under the CEO. This dedicated organization, consisting of one CSO, one team leader, and two working-level personnel, aims to strengthen the company-wide safety and health management system.

The safety management team preemptively inspects key risk factors through risk assessments and management site tours, establishes a safety and health management system to check legal compliance semi-annually, and systematically gathers feedback from on-site workers through the operation of the Industrial Safety and Health Committee, employee awareness surveys, and post-meeting feedback sessions. In addition, it operates emergency response manuals, accident investigation guidelines, and response training to immediately address serious accidents. It also proactively responds to legal requirements by updating safety and health-related legal revisions quarterly and evaluating compliance semi-annually. Furthermore, Hansol Technics is committed to creating a safe and pleasant working environment to protect the lives and health of employees and prevent industrial accidents and work-related illnesses.

• Activities for Creating a Safe Work Environment (Prevention of Industrial Accidents and Work-Related Illnesses)

Category		Details
1	Company-wide Education and Awareness Improvement	• Online safety and health education and testing, E.H.S. Day(once a month)
2	Expansion of Participatory Activities	• Encouraging participation in 5S activities and hazard identification, safety slogan contest
3	Quarterly Safety and Health Education	• Q1: VR experience education • Q2: Walking program • Q3: Safety animation rental • Q4: Safety Golden Bell quiz contest
4	Strengthening On-site Safety	• Implementation of job observation activities, energy isolation management through LOTO (Lock-Out Tag-Out) system introduction
5	Outsourcing and Facility Safety Management	• Application of safety processes for outsourced work and new facility introduction, joint labor-management inspections
6	Smart Safety System	• Risk detection and prevention through AI-based video analysis system introduction
Achievement		Number of Safety Accidents in 2024: 0

Hansol Logistics

Hansol Logistics is dedicated to creating safe workplaces based on its company-wide safety and health management system. Under its safety and health management policy and goals, all employees, including the CSO and management, continuously identify and improve significant workplace hazards to ensure the thorough prevention of accidents. In particular, it continuously listens to the safety and health VOE (Voice of Employee) of its partner companies and practices mutually beneficial safety and health management through practical safety management support.

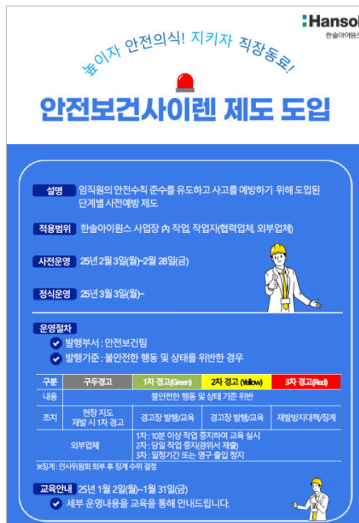
Hansol IONES

Hansol IONES contributes to reducing employee accidents through measures such as prior training for supervisors, a safety and health reward system, and the operation of a communication center.

• Employee Safety Training System

Training System	Frequency	Contents
Prior Training for Supervisors	Monthly	• Education for supervisors who directly command and supervise production-related tasks and their subordinates, prior to regular safety and health training.
Operation of Safety and Health Reward System	Quarterly	• System to recognize and reward departments and individuals with excellent performance in workplace safety management.
Production and Distribution of Safety and Health Guide	As needed	• Clearly communicates safety and health management policies. • Provides safety and health guidelines including specific instructions for accident prevention.
Operation of Safety and Health Communication Center	As needed	• Receives reports on accidents and hazards, and aims to prevent accidents through prompt analysis and improvement.
Operation of Safety and Health Siren System	As needed	• Step-by-step warning system to prevent accidents in advance by improving unsafe acts and unsafe conditions.

• Safety and Health Siren System



• Safety and Health Guide



• Safety and Health Communication Center



Tapex

From February to June 2024, Tapex conducted job training for supervisors related to manufacturing for 11 employees.

Industrial Safety and Health Management Activities

Hansol Group

Hansol Group conducts regular health check-ups for employees to prevent diseases and promote health, and also carries out education and campaigns to raise awareness about health.

Hansol Paper

To build a safe and pleasant workplace and respond to safety and health-related risks, Hansol Paper establishes an annual safety and health plan and obtains approval from the Board of Directors. In particular, as corporate responsibility for safety expands, it actively responds to increasingly stringent industrial safety laws such as the Serious Accidents Punishment Act. Furthermore, Hansol Paper has established and operates a global-level safety and health management system, including obtaining ISO 45001 certification for all business sites. In addition, Hansol Paper has HSRS auditors within the Group to evaluate and verify safety and health status, independently conducting cross-verification between related companies once a year.

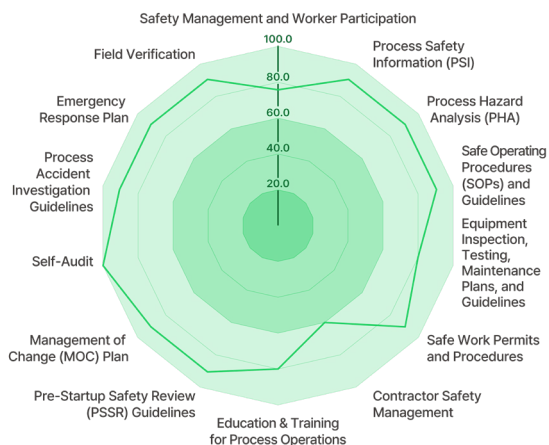
Hansol Chemical

Hansol Chemical is committed not only to meeting legal requirements such as the Occupational Safety and Health Act and the Serious Accidents Punishment Act, but also to continuously enhancing its safety and health management practices. We conduct annual internal safety assessments to identify areas for improvement across the company and raise our management standards. Safety campaigns led by plant managers and division heads help foster a strong safety culture among employees, while weekly risk assessment meetings address process changes and minimize unexpected incidents. In addition, we have established an integrated EHS (Environment, Health, and Safety) management system to systematize safety tasks and legal obligations, prevent human error, and build a more robust safety management framework.

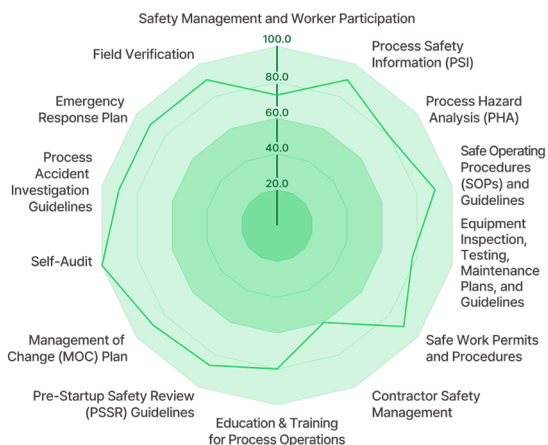
Tapex

Tapex has established a safety and health management system in line with the intent of the Serious Accidents Punishment Act and is continuously working to improve workplace safety. The Yanggam and Paltan plants have achieved and maintained the highest S grade in regular Process Safety Management (PSM) audits, while internal audits and company-wide safety campaigns enhance safety awareness among employees and partners. Over the past four years, KRW 1.96 billion has been invested in improving safety and health facilities, and various initiatives such as safety festivals, regular health consultations, and periodic EHS meetings are conducted to proactively manage risks. In addition, with the Saemangeum plant, completed in 2023, obtaining ISO 45001 certification in 2024, all domestic plants now operate safety and health management systems that meet international standards. Based on this, Tapex systematically manages safety risks and strengthens the foundation for sustainable growth.

• Tapex Yanggam Plant PSM Self-Audit Report



• Tapex Paltan Plant PSM Self-Audit Report



Organizational Culture

Health Promotion Program

Hansol IONES

Hansol IONES conducted a no-smoking campaign to build a healthy culture among its employees. Applicants to the stop-smoking clinic can participate in a stop-smoking program that includes stop-smoking education and counseling services, nicotine dependence assessment, and subsequent nicotine tests at the 3-month and 6-month marks after deciding to quit. This is expected to increase the quit rate among smokers within the company and reduce non-smokers' exposure to secondhand smoke as the number of smokers decreases, ultimately contributing to health promotion and disease prevention among employees.

Grievance Handling System

Hansol Technics

From April to December 2024, Hansol Technics conducted training for all employees on preventing sexual harassment in the workplace, preventing harassment, improving disability awareness, and human rights, to promote a culture of respect for human rights.

Through this, we have enhanced human rights sensitivity within the organization and strengthened a prevention-oriented education system to prevent human rights violations such as sexual harassment and bullying.

Category	Common Positions	Technical Positions
Training Method	Online	Offline
Number of Completed Trainees	492 People	111 people
Completion Rate	100%	

Hansol IONES

Hansol IONES operates an in-house grievance handling system called "Aureum Connect" to strive for a better working environment through communication between the company and its employees.

In 2024, a survey of the Aureum Connect channel was conducted to gather user feedback, identify areas for system improvement, and carry out supplementary work.



Furthermore, labor-management committee members took the lead in holding explanatory sessions on the purpose and proper usage of Aureum Connect, and posters were produced and distributed to actively promote it, creating an environment where employees can practically utilize the system.

As a result, 489 grievances were received in 2024, and responses were completed for 423 cases, excluding 66 cases that could not be processed.

Work Environment Improvement

Hansol Technics

Hansol Technics is promoting company-wide infrastructure improvements to enable employees to immerse themselves in their work in a more pleasant environment, and is continuing its efforts to enhance job satisfaction and the qualitative growth of the organizational culture.

At the Suwon plant, a space reorganization was carried out to increase work efficiency. The office space was expanded to the 14th floor to create an environment conducive to work concentration, and the conference rooms and workspaces on the 7th and 8th floors were renovated into spacious and pleasant areas.

To enhance employee satisfaction and choice at the Suwon plant, the company moved away from the existing designated meal provider system and introduced a mobile meal voucher app, thereby broadening the selection range for special meals provided once a month. In addition, infrastructure improvements for everyday convenience, such as the installation of new ice water purifiers, are being carried out in parallel, carefully considering even the small inconveniences of the members.

The Jincheon plant has also undergone various environmental improvements to enhance employee welfare. Break rooms and lounge areas were expanded and remodeled to provide employees with comfortable rest spaces, and efforts were made to create an environment that reflects employee needs.

Furthermore, meticulous improvements that increase daily satisfaction, such as the installation of ice water purifiers, the replacement of existing water purifiers, and the introduction of instant ramen cooking appliances, are continuously being promoted across all business sites, considering the work convenience of employees.

Hansol IONES

Hansol IONES operates the CULTI TF team and organizational activation programs to foster an organizational culture for continuous growth.

Operation Contents	Activity Details	• HELLO CULTI Guidebook	• Collaborative Play with Shared Intention
Operation of CULTI TF Team for Improving Ways of Working	• Production of HELLO CULTI Guidebook by deriving improvement areas and directions through surveys • Completion of Action 11 Guide by selecting 11 practical items • Strengthening Guidebook promotion and internalization activities		
Organizational Activation Program 'Collaborative Play with Shared Intention'	• A game-based event featuring missions that can only be completed through teamwork to promote collaboration among member		

Tapex

• Improvement and Expansion of Employee Welfare Programs

Category	Main Contents
Special Holiday Work Incentive	Expansion of special holiday work incentive payment criteria for employees working during holidays (differentiated payment of 50,000 to 150,000 KRW)
Basic Welfare System	Group accident insurance, in-house cafeteria, flexible work system operation, Increased kindergarten fee support, expanded birthday welfare points, establishment of long-term service awards, health checkups, etc
Operating Purpose and Expected Effects	Support for work-life balance, enhancement of work engagement, and improvement of corporate culture level

Strengthening Communication

Hansol Technics

Hansol Technics operates various communication programs to foster a healthy organizational culture and strengthen communication among its members.

• Key Communication Activities and Details by Stakeholder Group

Category	Main Contents	Details
Town Hall Meetings between CEO and Employees	Expanding direct communication with the CEO, customized communication by job level and age group	• Holding company-wide meetings twice a month • Operating a total of 12 lunch meetings for senior-level employees in 2024 • Will be expanded to Engineer level in 2025 • Improving mutual understanding within the organization
Organizational Activation Training	Conducting first-half training for common positions	• Organizing programs with diverse departments and age groups • Strengthening sense of belonging and camaraderie within the organization
MFP (My Favorite Partner)	Spreading a culture of inter-departmental collaboration	• Operating monthly exchange meetings • Combining sports/cultural activities and dinner meetings

Hansol IONES

Hansol IONES regularly conducts communication meetings and surveys to strengthen communication with employees and continuously improve the organizational culture and work environment. Based on the 2023 engagement survey results, meetings were held in 2024 primarily targeting employees working at external sites to address their feelings of isolation and enhance their sense of belonging.



Tapex

Tapex is building a challenging organizational culture to accelerate the growth of the organization, and is continuously holding intergenerational communication sessions and workshops to foster an environment where innovation can thrive.

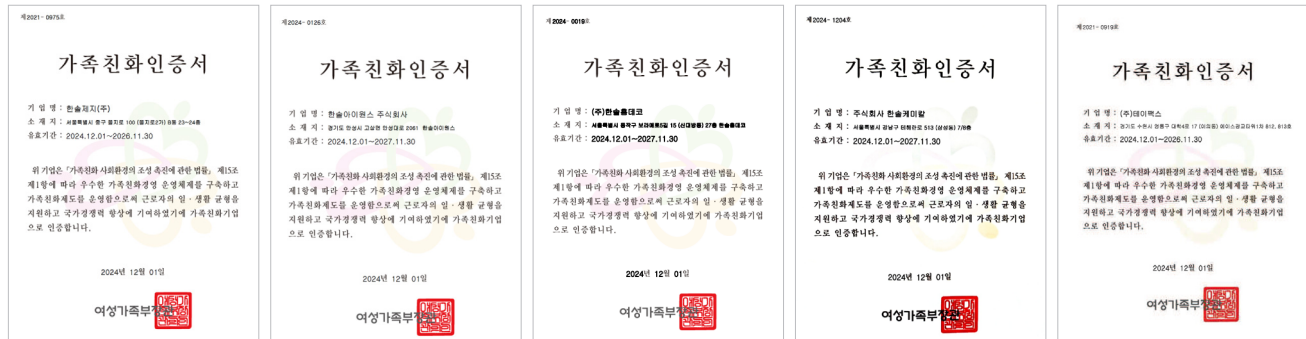
• Training and Workshops to Promote Communication within the Organization

Year	Main Activities	Goals and Effects
2022	Held tiered meetings to strengthen intergenerational communication	Improved intergenerational understanding and communication
2023	Introduced new workshops for team leaders and department heads (focused on communication, mindset, and organizational management)	Strengthened leadership capabilities and improved organizational management skills
2024	Held company-wide workshops on the theme of challenge and innovation	Increased the organization's growth rate and secured sustainable competitiveness

Family-Friendly Work Environment

• Women and Family-Friendly Programs by Affiliates

Affiliate	Summary of Key Activities	Special Notes/ Achievements
Hansol Paper	Operation of family-friendly systems such as encouraging childcare leave, flexible work arrangements, children's camps, and tuition support	Awarded the Ministry of Gender Equality and Family's Family-Friendly Certification for the second consecutive time
Hansol Technics	Creation of a flexible work environment including maternity leave, expanded paternity leave, and a smart work system	Formation of a family-friendly organizational culture
Hansol IONES	Maternity leave, parental leave, and paternity leave	Obtained family-friendly certification from the Ministry of Gender Equality and Family
Hansol HomeDeco	Maternity leave, parental leave, paternity leave and flexible work arrangements	Obtained family-friendly certification from the Ministry of Gender Equality and Family
Tapex	Continuous operation of family-friendly programs (women's lounge, online education programs, childcare-related leave, etc.), operation of a women's committee, women's employee meetings, influencer gatherings	Re-certified as a Family-Friendly Company in 2024, Creation of a female-friendly culture



Labor-Management Partnership Activities and Achievements

Hansol PNS

Hansol PNS's Paper Distribution Division enhances employee welfare through quarterly labor-management councils.

Employee Evaluation and Compensation System

Hansol PNS

Hansol PNS's Paper Distribution Division operates the 'For Me System' as part of its flexible work arrangement. This system grants employees 14 individual annual leaves per year, and provides an additional 7 days of leave upon exhaustion of the mandatory annual leave days, thereby enhancing employee engagement and creating a more efficient work environment. By ensuring sufficient rest after 4 working days, it supports employees in recharging and focusing on their tasks. Furthermore, the system allows teams and individuals to flexibly distribute and utilize their leave based on their autonomous choices, contributing to work-life balance by fostering a flexible work environment.

Hansol Technics

To operate a fair and transparent performance evaluation system, Hansol Technics encourages higher-level managers to set challenging individual goals aligned with organizational objectives. This clarifies the performance accountability of members and enhances the objectivity and reliability of evaluations.

Expanding Social Contribution Activities

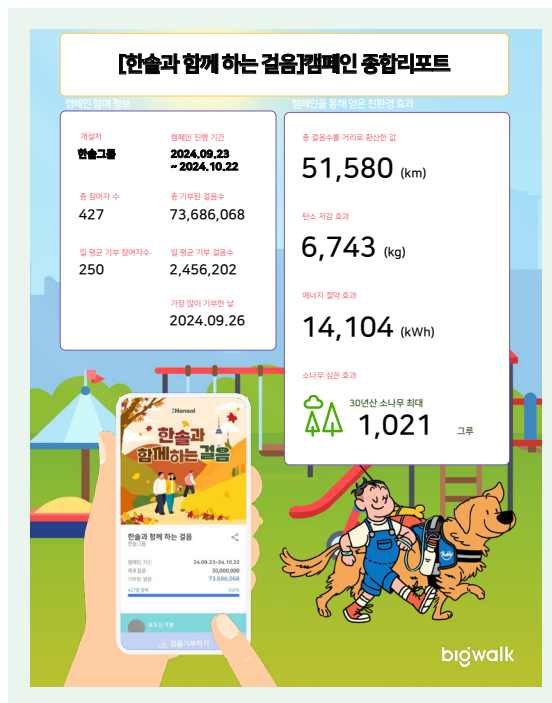
Environment Friendly Social Contribution Activities

Hansol Group

Hansol Group undertakes various social contribution activities annually to fulfill its corporate social responsibility and obligation and to practice corporate philanthropy. In 2024, it collaborated with the social enterprise “Bigwalk” to conduct step donation campaigns twice, once in the first half and once in the second half of the year. This event involves the company donating funds to those in need when the total number of steps donated by employees over a month reaches a target. It is an eco-friendly social contribution activity with carbon reduction and energy saving effects. In the first half of the year, KRW 10 million was donated to a housing environment improvement project for low-income visually impaired individuals conducted by the Good People association. In the second half, KRW 10 million was donated to a meal support program for children at risk of hunger in Korea run by Save the Children.

In particular, the second-half step donation campaign was even more meaningful, as employees from Hansol Holdings, Hansol PNS, Hansol Technics, Hansol IONES, Hansol Logistics, Hansol HomeDeco, and Hansol Inticube participated.

Furthermore, Hansol Holdings participated in an initiative with the social enterprise “Tree Planet,” in which the purchase of a potted plant triggered a matching grant donation of the same number of endangered seedlings. These seedlings are nurtured in a nursery until they are mature enough to be planted in a forest. Twenty-five employees participated, contributing to the protection and propagation of *Asplenium antiquum*, an endangered wild plant.



• Steps with Hansol

As part of an employee wellness program, Hansol donates money based on daily step counts, promoting energy savings and carbon reduction.

Company Name	Total Number of Participants	Carbon Reduction Effect	Energy Saving Effect
Hansol Holding	26	449kg	939kWh
Hansol PNS	53	799kg	1,671kWh
Hansol Technics	105	1,365kg	2,855kWh
Hansol IONES	92	1,857kg	3,884kWh
Hansol Logistics	115	1,675kg	3,503kWh
Hansol HomeDeco	14	320kg	669kWh
Hansol Inticube	22	276kg	577kWh

Activities to Support Marginalized Groups

Hansol Paper

Hansol Paper's individual plants actively contribute to their local communities through various initiatives such as scholarship programs, scholarship provision, volunteer activities, and donations.



Janghang Plant

Adopt-a-Beach program, helping neighbors in need, sponsoring sisterhood schools, scholarship support, donation for recovery from the Seocheon Special Market fire



Sintanjin Plant

Sharing during Lunar New Year's Day and Chuseok holidays, Coal briquette donation volunteer activities



Cheonan Plant

Supporting vulnerable groups such as senior citizen centers, child-headed households, and elderly living alone in nearby areas

Hansol Paper's Environmental Business Division, supported by the Korean government's Economic Development Cooperation Fund (EDCF), has been implementing a 48-month groundwater irrigation and rural development project in Ethiopia since December 2023. This project aims to improve drinking and agricultural water supply by building essential infrastructure, establishing rural technology centers and food processing facilities, and providing agricultural machinery to boost productivity. Approximately 5,000 hectares of irrigation facilities will be secured in areas lacking large-scale irrigation, increasing irrigated farming, and enabling stable agriculture during the dry season. This will also enhance the efficiency of water and land use for local residents.

Hansol Paper also provides free health clinics and daycare centers in irrigation areas to improve local quality of life. These efforts reflect the company's commitment to social values beyond profit.

In addition to Ethiopia, Hansol Paper is active in global environmental infrastructure projects, such as sanitary landfills, sewage treatment, and intelligent transportation systems in Mozambique, Kenya, Indonesia, and Azerbaijan. It also engages in eco-friendly renewable energy projects, including facility operations, soil remediation, waste-to-energy, and bioenergy.

Hansol Paper's Environmental Business Division will continue to grow as a sustainable, eco-friendly company, expanding its positive impact on society and the environment, both domestically and internationally.



Hansol PaperTech

Hansol Papertech is committed to sustainable management and continues to carry out various social contribution activities in cooperation with the local community. To fulfill its corporate social responsibilities, the company provides tangible support across various areas, including education, environment, welfare, and the local economy. Hansol Papertech expands educational opportunities for youth by offering scholarships and supporting experiential learning programs. To help improve the local environment, the company conducts regular clean-up activities around nearby streams, traditional markets, and village alleys surrounding its facilities. In collaboration with Damyang-gun, Hansol Papertech signed a business agreement for the Hometown Love Donation Program and actively participates in local economic revitalization efforts, such as campaigns to purchase locally grown Damyang rice. In addition, the company has formed a close partnership with Nambu Village in Daejeon-myeon, Damyang-gun, where its plant is located. Initiatives include free inspection of heating and cooling systems, delivery of development funds, summer electricity bill support, and mural painting projects, all aimed at improving the living environment and building trust with local residents. Hansol Papertech also contributes to community welfare and safety by donating heating supplies to the underprivileged during winter and providing compact fire extinguishers and fire prevention education to households at higher risk of fire.

Going forward, Hansol Papertech plans to continue creating real social value through community engagement and to grow as a responsible company that advances together with local residents.



Hansol IONES

Hansol IONES consistently conducts various social contribution activities every year. In particular, it contributes to the improvement of local community welfare by providing donations and engaging in volunteer activities to support vulnerable groups in Anseong City. This year, in addition to existing social contribution activities, a health promotion program involving employees was conducted. As employees actively achieved their health goals, corresponding donations were accumulated, allowing for the practice of warm sharing with neighbors in need.



Hansol Chemical

Hansol Chemical carried out donations totaling approximately KRW 69 million in 2024, benefiting various local groups, including underprivileged communities, the Red Cross, and industry-academia cooperation organizations.

• Social Contribution Activities

Type	Activities
Child Welfare Support	• Donation to Zionhome - KRW 1,000,000 • Donation to Zionhome for Housing Improvement - KRW 10,100,000 • Donation to Shinmangae - KRW 436,000 • Donation to Zionhome for Samgyetang Support - KRW 500,000 • Donation to Zionhome for Chuseok Holiday Support - KRW 1,000,000 • Donation to Zionhome for Kimchi Making Support - KRW 500,000 • Donation to Seoul Child Welfare Support Association - KRW 1,273,800
Underprivileged	• Donation to 'Sumna' Foundation for Samgyetang Support - KRW 4,000,000 • Donation to Ulsan Nam-gu Senior Welfare Center - KRW 365,000 • Donation to Wanju County Social Welfare Council for Kimchi Making Support - KRW 4,000,000
Kimchi Making Support	• Donation to Hyejinwon for Kimchi Making Expenses - KRW 1,000,000 • Donation to Hyejinwon for Kimchi Making Support - KRW 1,866,670
Briquette Delivery	• Donation to Warm Korea Briquette Delivery - KRW 1,034,000 • Donation to Warm Wanju Love Briquette Sharing Movement for Briquette Support - KRW 4,000,000
African Water and Sanitation Support Project	• Donation to Team&Team - KRW 30,000,000
Korean Red Cross	• Donation to Korean Red Cross for Blood Donation - KRW 3,000,000 • Donation to Korean Red Cross for Making Hope Bread - KRW 700,000
Industry-Academia Cooperation	• Donation to Kunsan National University Industry-Academia Cooperation Foundation - KRW 4,500,000

• Community Activities

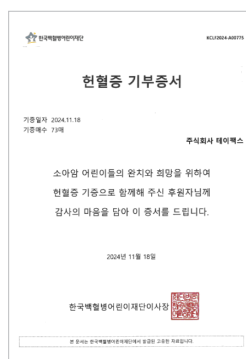
Category	Activity
Company-wide	• Hope Sharing Marathon Event • Resource Recycling Campaign - Collecting Discarded Appliances • Auction of Hope
Headquarters	• Sharing Hope Bread Volunteer Service • Delivering Briquettes of Love Volunteer Service
Jeonju Branch	• Supporting Seol Holiday Snacks for Sion Orphanage • Samgyetang Sharing Event • Supporting Chuseok Holiday Snacks for Sion Orphanage • Blood Donation Event • Kimchi Making and Sharing Volunteer Service
Ulsan Branch	• Ulsan Nam-gu Senior Welfare Center - Free Meal Service for Elderly/Cafeteria Cleaning • Ulsan Nam-gu Environmental Agency - One Company, One River Volunteer Service/Cleaning Rivers and Walking Paths • Hyejinwon 1:1 Matching Cultural Experience Activities - Movies/Meals

Tapex

Tapex has significantly expanded its community contributions since 2022. Based on its social contribution policy and mid to long-term roadmap established in 2024, the company continuously identifies and implements various activities that can provide practical assistance to the local community. Through these efforts, Tapex actively fulfills its corporate social responsibility while also raising employee awareness of participating in social contribution activities. The company is continuously striving to create genuine shared value with the local community, moving beyond simple one-time donations.

• Promotion and Expansion of Community Contribution Activities

Activity Name	Detailed Description
Hope Sharing Marathon Cheer Funding Campaign, May 2024	- Marathon operated by selecting and supporting representative players from each business unit - Cheer funding: KRW 5,150,000 (KRW 3,778,000 in 2023) - Employee donations KRW 2,575,000 + company matching grant - Number of participants: 75 (62 in 2023)
Resource Circulation Field Trip Program for Employees' Children, April 2024	Environmental education on the value of resources and the importance of resource circulation through various environmental education and experiences on the theme of resource circulation for employees' children (ages 6-12) (22 children attended)
Korean Red Cross Gyeonggi Blood Center Sharing Blood Donation	- Sharing blood donation conducted twice a year (February, August) → A total of 73 blood donation certificates donated to support children with childhood cancer at the Korea Leukemia Children's Foundation
KMS Knowledge Festival, 2024	- Donation of KMS Knowledge Festival prize money: KRW 1,300,000 2024 Knowledge Festival winners voluntarily donated 5% as a sharing fund- Number of participants: 8 - Employee donations KRW 650,000 + company matching grant KRW 650,000
Designate Community Sponsorship Organizations	- Increased effectiveness through the designation of community sponsorship organizations (2 organizations, total of 11 visits) - Suwon 'Kyungdongwon', Hwaseong 'House of Hope' - Support for dementia prevention educational materials, support for goods worth KRW 4 million, etc.
Sharing Fund (Matching Grant), March 2022~, Each Month	- Voluntary employee participation (50%) + company 50% (KRW 37 million raised in 2023, KRW 34 million in 2024) - KRW 15 million donated to the Blue Asia Foundation in 2024 (Tapex Sharing Forest creation (Mongolia))
Policy to Expand Employee Participation, 2022~	Providing innovation points, company product gifts, recognizing weekday social contribution activity hours as work hours, etc.



Addressing Social Issues and Expanding Impact

Hansol Group

Hansol Dreamverse Company

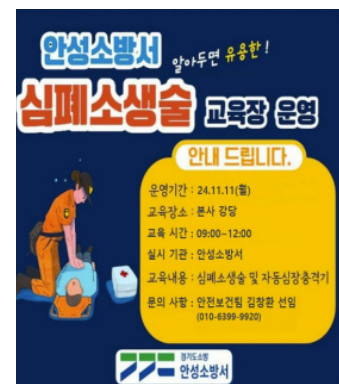
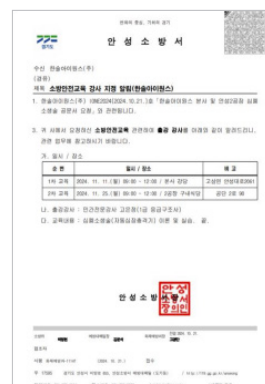
Hansol Group, in collaboration with the Ministry of Employment and Labor, operates the “Hansol Dreamverse Company” virtual internship program in a metaverse space to help young people improve their job skills and make career decisions. This program is part of the Ministry of Employment and Labor’s ‘Future Tomorrow Work Experience Project,’ aiming to provide young people with opportunities for indirect experience of actual work and career exploration through virtual workplace experiences, while also establishing a recruitment-linked foundation for companies seeking practical talent.

In the fourth round conducted in 2024, a total of 210 individuals were finally selected to participate in the program. The course consists of three stages: 1. Preliminary job training, 2. Actual work performance, and 3. Job competency enhancement workshop. This structure allows internship participants to gain practical job experience by completing weekly job missions.



Hansol IONES

In August 2024, Hansol IONES conducted an in-house blood donation campaign as an ESG activity to fulfill its social responsibility, donating the collected blood. Subsequently, in November, it held a CPR certification course to provide training on cardiopulmonary resuscitation and the use of automated external defibrillators, thereby strengthening the capacity for rapid response in emergency situations.



Enhancing Corporate and Customer Value

Hansol Paper

Hansol Paper's core value is enhancing its customers' business competitiveness and providing high-value-added paper solutions that combine sustainability and functionality. Through the development of materials that consider product quality, stability, and environmental impact simultaneously, it supports customers in proactively responding to changing market demands and enhancing their brand value. Moving forward, Hansol Paper will continue to expand differentiated products and services that help customers grow, as a partner they can trust. To this end, it participated in various exhibitions throughout 2024 to directly introduce the eco-friendliness and technological prowess of Hansol Paper products to customers and convey their differentiated value.

Hansol Paper hosts "Inspire Award," Korea's first and largest paper design award, serving as a guideline for domestic paper design trends. Furthermore, it aims to be a strong supporter of talented designers. Starting in 2018, it successfully held the 7th Inspire Award in January 2025, with various works submitted each year. To support university students who will lead the future design industry, it has provided annual sponsorships to Yeongsan University in October 2023 and Kaywon University of Art & Design in January 2024. Inspire is a premium printing paper brand launched by Hansol Paper and is a highly preferred paper type among designers.



Overseas Exhibition

Label Expo Chicago,
September 2024



Domestic Exhibition

Korea Packaging Fair,
April 2024



'Eternal Once' Exhibition
at Museum SAN, May



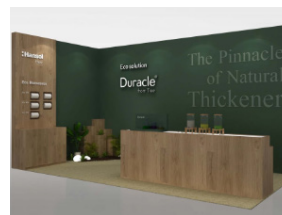
CosmoBeauty



Seoul International Book
Fair, June



InterCHARM Korea, July



ADP Seoul Eco-Friendly
Fair, October



Hansol Inticube

In June 2024, Hansol Inticube invited five VIP client companies to host the '2024 Contact Center Business and Technology Environment Change Seminar.'

Tapex

Tapex is committed to advancing its ESG practices for sustainable management and strengthening its competitiveness for global market expansion.

• Details of KOTRA's ESG Consulting for Medium-Sized Enterprises

Item	Content
Background	• Expansion of global clients (Europe, etc.) • Recognition of the need to advance the supply chain to respond to major ESG regulatory countries
Key Objectives	• Establishment of an ESG regulation response system • Improvement of sustainability management level and securing global competitiveness
Project Period	November 2023 - February 2024
Implementing Organization	K2WAY
Support Program	KOTRA Global ESG Response Consulting Support Program
Total Cost	Total Cost: KRW 7.24 million Subsidy: KRW 6.37 million Company Contribution: KRW 0.87 million
Expected Outcomes	• Establishment of a policy response system for major ESG regulatory countries • Advancement of the supply chain management system • Increased credibility with global clients

SUPPLY CHAIN MANAGEMENT

INTRODUCTION | ESG PERSPECTIVE | ENVIRONMENT | **SOCIAL** | GOVERNANCE | ESG FACTBOOK | APPENDIX

Partnering for Mutual Growth

Hansol Group

Hansol Group enhances the quality and competitiveness of its partners through continuous supplier selection, monitoring, and improvement activities, and pursues mutual growth with its partners based on fair and transparent transactions.

• 2024 Supply Chain Sustainability Assessment Results

Category	Hansol Holdings	Hansol Paper	Hansol PaperTech	Hansol PNS	Hansol Technics	Hansol IONES	Hansol Logistics	Hansol HomeDeco	Hansol Inticube	Hansol Chemical	Tapex
Number of suppliers with whom improvement discussions were held regarding negative environmental/social impacts	0	0	0	0	0	0	0	0	0	0	0
Number of suppliers identified with negative impacts	0	0	0	0	0	0	0	0	0	0	0
Percentage of suppliers for whom improvement actions were taken (%)	0	0	0	0	0	0	0	0	0	0	0
Number of suppliers whose relationship was terminated due to negative impacts.	0	0	0	0	0	0	0	0	0	0	0
Number of suppliers whose relationship was terminated due to previously identified negative impacts	0	0	0	0	0	0	0	0	0	0	0

• 2024 Number of Partners Complaints Received and Processed

Category	Hansol Holdings	Hansol Paper	Hansol PaperTech	Hansol PNS	Hansol Technics	Hansol IONES	Hansol Logistics	Hansol HomeDeco	Hansol Inticube	Hansol Chemical	Tapex
Numer of grievance reports received form partners	0	0	0	0	0	0	0	0	0	0	0
Number of grievance reports resolved for partners	0	0	0	0	0	0	0	0	0	0	0

Hansol Paper

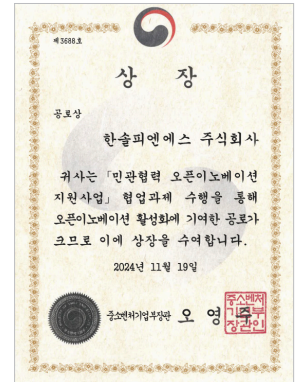
Hansol Paper pursues mutual growth with its partners not only by enhancing cost and quality competitiveness, but also by strengthening competitiveness across the entire supply chain. To this end, the company engages in various cooperation and support activities as a win-win partner and strives to maintain sustainable relationships.

• Partner Support Programs

Category	Support Program	Achievements
Technology Cooperation	- Hansol-Partner Idea Contest and Joint Development - Hansol-Partner Testing Equipment and Practitioner Technical Exchange	- Strengthened mutual cooperation and technological innovation through joint development among partner companies - Improved quality competitiveness
Financial Support	- Maintenance of Win-Win Cooperation and Mutual Growth Fund (KRW 6 billion) - Early payment before Lunar New Year's Day and Chuseok holidays	- Continued low-interest operating fund loans to partner companies through the extension of the Mutual Growth Fund period (until October 2025) (In 2024) 10 companies used the Mutual Growth Fund, totaling approximately KRW 4.3 billion
Education Support	- Support for 6 Sigma and Hansol Cyber Education (strategy/innovation, foreign languages, human rights/ labor/ethics, safety/health, environment, etc.) - SAP Design Thinking training (problem-solving and innovation methodologies, etc.) - Mutual Growth CEO/Practitioner Academy - Support for Mutual Growth Council cyber education (general management, leadership, self-development, language, etc. - 3,000 courses)	Improved human resource competitiveness of partner companies through mobile education support
Strengthening Communication	Meetings with CEOs/practitioners and customer invitation events	Strengthened relationships and built trust with partner companies
Safety Support	- Support for safety manager personnel expenses - Support for expenses related to the introduction and establishment of occupational health and safety management systems - Support for accident prevention training	- Improved work environment for partner companies - Strengthened safety and health risk management across the entire value chain
Environmental Support	- Support for partner company ESG evaluations - Support for Seochon County environmental coaching staff - Activities of the Seochon region chemical safety management community	- Strengthened environmental risk management for partner companies and local communities (In 2024) ESG evaluation support provided to 11 companies, totaling KRW 7.15 million

Hansol PNS

Hansol PNS's IT Service Division has been pursuing open innovation since 2022 to expand its value chain by building a diverse collaboration ecosystem. It has signed MOUs with three startup incubation centers (Incheon Center for Creative Economy & Innovation, Gyeonggi Center for Creative Economy & Innovation, and Seoul Business Agency) to build an open innovation ecosystem. Through open innovation in the form of contests, it is conducting PoC (Proof of Concept) with startups in the fields of "Industrial Safety," "AI Vision," and "Cloud." In recognition of these activities, it received the Minister of SMEs and Startups Award at the "2024 Public-Private Partnership Open Innovation Support Project Achievement Sharing Session."



Hansol Technics

Hansol Technics has entered into a fair-trade agreement with its major subcontractors to promote win-win cooperation and compliance with regulations. It also undergoes an annual evaluation of the Mutual Growth Index by the Fair-Trade Mediation Agency under the Fair-Trade Commission and the Korea Commission for Corporate Partnership.

Furthermore, a subcontract committee is held monthly to report on all business matters related to partner companies and conduct necessary deliberations.

To ensure continuous communication and win-win cooperation with partners, Hansol Technics operates a consultative body. Currently, three partner companies, including those managing the cafeteria, security room, and commuter buses, participate in this body. In 2024, 12 regular meetings were held to share key issues and discuss operational improvements.

Hansol IONES

In 2024, Hansol IONES held a mutual growth partnership meeting with representatives and managing executives from 17 key partner companies to share business improvement matters and discuss ways to promote mutual growth through cooperation. In addition, safety and health training was provided to help partner companies better understand and apply safety and health systems to improve overall safety management. Furthermore, an unfair trade reporting system was introduced to support the creation of a transparent and fair-trading environment.

The meeting is expected to foster even stronger cooperative relationships in the future, laying the groundwork for mutual development based on trust with partner companies.



Hansol Chemical

As part of our win-win program with partners, we have a B2B agreement with a domestic financial institution. This B2B agreement is a KRW 20 billion agreement with NongHyup Bank that allows our relatively less creditworthy partners to receive discounts on the notes they receive for goods from us, based on our creditworthiness. This plays a role in facilitating the partners' cash flow.

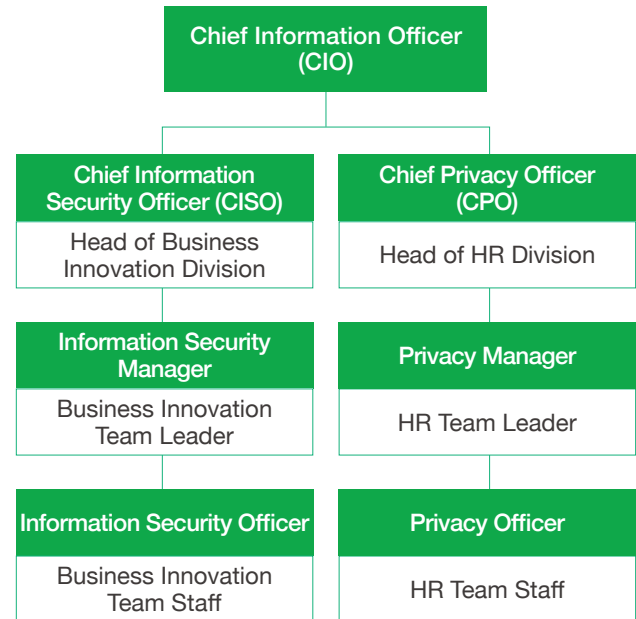
Tapex

Tapex has been conducting environmental, health, and safety (EHS) risk assessments and evaluations for its key suppliers since 2023 to minimize potential negative impacts and proactively respond to risks within its value chain. By evaluating the environmental and safety levels of suppliers and reflecting on these assessments during the selection process, Tapex aims to drive continuous improvement. In 2024, risk assessments and evaluations were carried out for 11 existing and new construction contractors, and the company plans to continuously expand the scope of application and strengthen support activities for improvement in the future.

STRENGTHENING INFORMATION SECURITY

Hansol Paper

Hansol Paper implements information protection activities in accordance with its “Company-wide Information Protection Policy”. To safeguard critical information assets related to the company’s management and technology, it has established information protection standards and guidelines and manages them to ensure that all Hansol Paper stakeholders comply with the policy. Hansol Paper has designated an Information Protection Officer and a Privacy Officer to take protective measures in accordance with information protection-related laws and regulations and established a system capable of responding quickly and accurately to information protection issues. In particular, the Business Innovation Team, that oversees all IT-related tasks as a management department, has been added to protect the company’s information from external leakage, alteration, and damage, thereby enhancing corporate competitiveness.



Tapex

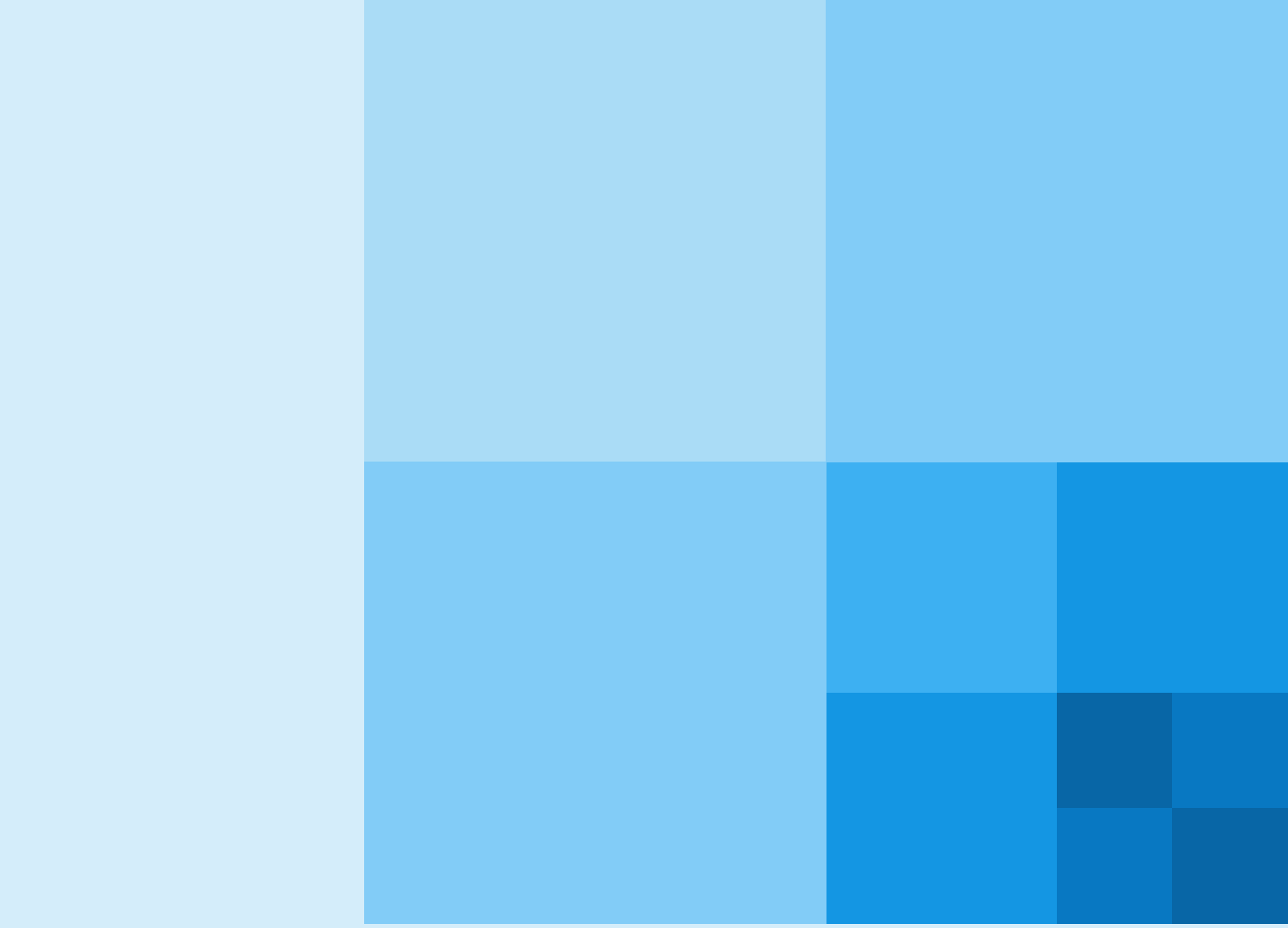
Tapex has established an information security system based on international standards, continuously strengthening its global-level information protection capabilities. On November 17, 2023, it obtained ISO 27001 certification, the internationally recognized standard for information security management systems, establishing a systematic risk management framework across four key areas: information security policies, physical security, technical security, and information access control. This certification applies to its headquarters, Yanggam Plant, Paltan Plant, and Saemangeum Plant and was obtained through the Korea Quality Assurance. ISO 27001 is the most authoritative international standard in the field of information security, established by the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). Through this, Tapex has substantially improved its information security level, enhanced business stability, and increased stakeholder trust.

Building on this, Tapex further advanced its information security system in 2024 by acquiring TISAX (Trusted Information Security Assessment Exchange) certification, an information security standard specifically tailored to the automotive industry. TISAX is an international certification developed by the German Association of the Automotive Industry (VDA) to evaluate whether organizations within the global automotive supply chain meet the required information security standards. By securing TISAX certification for its headquarters and key production sites, Tapex has strengthened security trust with global partners and solidified the foundation for minimizing information security-related risks.

Moving forward, Tapex plans to maintain a thorough information protection operating system based on ISO 27001 and TISAX certifications and further enhance its corporate competitiveness and stakeholder trust by continuously improving its security level.

5

GOVERNANCE



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TRANSPARENT GOVERNANCE AND SHAREHOLDER-FRIENDLY MANAGEMENT



Expansion of
Establishment and
Operation of

**Outside Director
Candidate
Recommendation
Committee**



Acquisition of

**Compliance
Management
System
(ISO 37301)**



Financial and
Non-Financial

**Risk Response
Process**

1. Continuous Shareholder-Friendly Policies

Guaranteeing Shareholder Rights

- **Hansol Holdings** Expanding Investor Communication Activities
- **Tapex** Improved Dividend Procedures

Shareholder Return Practices

- **Hansol Holdings** Board Resolution and Dividend on Shareholder Return Policy
- **Hansol Paper** Dividend at 25~35% of Net Income
- **Hansol Logistics** Increasing Dividend per Share Annually

Operation of the Audit Committee

- **Hansol Holdings** Auditing Accounting and Operations, Supervising Management's Performance
- **Hansol Paper** Composed of 3 Outside Directors

3. Ethics and Compliance Management

Establishing a Compliance Organization

- **Hansol Technics** Compliance Activities, Visiting and Gathering Opinions from Partner Companies

Establishing a Compliance Management System

- **Hansol Holdings** Conducted a Total of 8 Evaluations of Compliance Management System for 10 Affiliates

Group ESG Working Group

- **Hansol Holdings** A Quarterly Council held between the Holding Company and Affiliate Working-level Staff

Hansol Group is building a transparent and sustainable governance structure by enhancing board soundness, pursuing shareholder-friendly policies, establishing an ethical and compliance management system, and advancing risk management. The Group is strengthening the independence and expertise of its Board of Directors through measures such as the expanded operation of the Outside Director Candidate Recommendation Committee and acquiring ISO 37301 (Compliance Management System) certification. Furthermore, it is establishing a stable management system by refining its CEO succession policy and internal control system. In addition, Hansol Group has established a group-wide risk response process to proactively manage even non-financial risks.

Corporate Governance

2. Enhancing Board Soundness

Board with Independence and Expertise

- **Hansol Holdings** Outside Directors
Composed of Experts in Finance, Law and Financial Services

Operation of the Outside Director Candidate Recommendation Committee

- **Hansol Holdings** Expanding Stakeholder Representation through Shareholder Nomination Contest
- **Hansol IONES** Voluntary Adoption Despite Being a Non-Mandatory Entity

Establishing a Sound Governance Structure

- **Hansol IONES** Establishment and Operation of the Compliance and Transparency Enhancement Committee
- **Tapex** Awarded in the Tax Payment Category at the 12th Taxpayer Rights Awards

CEO Succession Policy

- **Hansol Holdings** Establishing a Systematic Selection Process through CEO Education and Coaching

4. Risk Management

Group Risk Reporting System

- Quarterly Non-Financial Risk Management
- Monthly Financial Risk Management

Group Risk Response Process

- A comprehensive risk assessment of all affiliates at the holding company level

Non-Financial Risk Management Response

- **Hansol Paper** Regular Reporting to Board of Directors
- **Hansol Technics** Quarterly and Semi-Annual Reporting

I CORPORATE GOVERNANCE

Shareholder-Friendly Policies

Guaranteeing Shareholder Rights

Hansol Holdings

Hansol Holdings is making multifaceted efforts to protect shareholder rights and facilitate the ease of exercising voting rights. We provide various methods for exercising these rights, including direct attendance, proxy voting, and solicitation thereof. In addition, Hansol Holdings focuses on investor relations activities, disclosing quarterly IR materials and management performance on its website after each quarterly earnings announcement, ensuring that shareholders and market stakeholders can easily access the latest information about the company. In the event of significant company changes, information is provided through appropriate disclosures, and shareholders' opinions are directly gathered and voted upon at the general shareholders' meeting, thereby aiming to protect the interests of all shareholders.

Hansol IONES

Hansol IONES promoted an amendment to its Articles of Incorporation at the 2024 Annual General Meeting of Shareholders, extending the notice period for convening the Board of Directors from "2 days prior" to the meeting date to "7 days prior." This measure aims to enhance the Board's role in overseeing the management by providing directors with sufficient time to review agenda items. Ultimately, it is intended to enable Board members to make decisions on key issues that maximize the interests of both the company and its shareholders, thereby focusing on increasing corporate value.

Tapex

Tapex has improved its dividend procedures to advance its dividend system. At the Annual General Meeting of Shareholders in March 2024, the Articles of Incorporation were amended to allow the dividend record date to be adjusted from the existing December 31st to a date after the General Meeting of Shareholders. Accordingly, the record date for the 2024 year-end dividend was set as March 21, 2025 (based on the General Meeting of Shareholders date of March 18th, three business days later). This improvement allows shareholders to make investment decisions after confirming the dividend amount, thereby creating a more transparent and predictable dividend environment. Furthermore, it is expected to strengthen a shareholder-friendly corporate image that prioritizes the protection of shareholder rights.

Shareholder Return Practices

Hansol Holdings

Hansol Holdings posts details of its shareholder return policy execution, including cash dividends, on its website and regularly informs shareholders of its ongoing implementation of the shareholder return policy by including detailed information in the IR materials published quarterly and posted on the website. In May 2022, the Board of Directors of Hansol Holdings resolved to maintain the existing shareholder return policy (2019-2021) until 2024, announcing the '2022-2024 Shareholder Return Policy' through fair disclosure. In addition, in February 2024, the Board of Directors resolved on a plan to retire treasury shares worth KRW 3 billion to stabilize the stock price and enhance shareholder value, and the retirement was carried out in December.

• Hansol Holdings' 3-Year Shareholder Return Policy Results

Item	2022	2023	2024
Dividend per Share - Common Stock	KRW 120	KRW 100	KRW 120
Dividend Yield - Common Stock	3.6%	3.3%	5.1%
Total Dividend Amount	KRW 5 billion	KRW 4.1 billion	KRW 4.9 billion
Dividend Payout Ratio (Consolidated)	10.5%	55.5%	243.4%

To enhance shareholder value, Hansol Holdings amended its Articles of Incorporation in March 2023 to set the dividend record date after the Board of Directors' resolution, allowing shareholders to check the dividend level before investing. Moving forward, Hansol Holdings will continue to implement shareholder-friendly policies and strive to increase shareholder value and sustainable profit distribution at the Group level.

Hansol Paper

Hansol Paper implements dividends as a primary means of returning a portion of profits to shareholders to maximize shareholder benefits. The process involves announcing the expected dividend amount at the Board of Directors meeting in February, finalizing it at the General Meeting of Shareholders in March, setting the shareholder registry as of the end of March as the dividend record date, and then paying the dividend. This allows investors to make investment decisions after confirming the initially decided dividend amount, thereby enhancing dividend predictability.

The company distributes dividends twice a year, in the first and second halves, and has maintained a dividend per share of approximately KRW 500 to 700 (based on common stock) from 2019 to 2024. Looking ahead, the company plans to utilize approximately 25~35% of the annual consolidated net income within the distributable profit range as a shareholder return policy, considering investments for long-term sustainable growth, operating performance, and cash flow.

Hansol Logistics

Hansol Logistics has consistently implemented year-end cash dividends to enhance shareholder value through shareholder returns. It is committed to shareholder returns by annually increasing the dividend per share.

Year	2020	2021	2022	2023	2024
Dividend-Common Stock	KRW 50	KRW 60	KRW 70	KRW 100	KRW 150

Hansol Chemical

Hansol Chemical has disclosed its dividend policy in the business report as part of its shareholder-friendly policies to increase the possibility of dividends for shareholders. Hansol Chemical’s dividend policy aims to maximize corporate value through appropriate profit distribution, and the company is doing its best to maintain a stable dividend policy that can meet shareholders’ dividend expectations.

After the end of each fiscal year, the company comprehensively considers legally distributable profits, the market value of its shares, dividend levels of peer companies, and the cash flow situation. In the short term (1 to 2 years), the company aims for a dividend payout ratio at least equal to the previous year’s cash dividend per share, and in the long term (3 to 5 years), it aims for a dividend payout ratio of approximately 20% of net income based on separate financial statements.

Tapex

Tapex is practicing shareholder-friendly management and continuously strengthening its return policy to enhance shareholder value. The company has implemented cash dividends every year since its listing, thereby securing shareholder trust and promoting sustainable corporate growth. Since its initial dividend payout in 2020, Tapex has maintained cash dividends for five consecutive years. In 2024, it decided on a dividend of KRW 200 per share, recording a dividend yield of 1.6%. The company plans to continue pursuing shareholder return policies to meet future market expectations.

Operation of the Audit Committee

Hansol Holdings

Hansol Holdings operates an Audit Committee as an internal audit body to strengthen corporate governance and enhance management transparency. This committee not only conducts audits of accounting and operations but also thoroughly oversees the performance of directors and management by deliberating and resolving matters delegated by the Board of Directors. In addition, it supports rational business judgment. Currently, the committee consists of three outside directors with expertise and independence, who provide independent audit opinions based on a deep understanding of accounting standards, financial reporting, and internal control systems.

Hansol Paper

The Audit Committee of Hansol Paper consists of three directors, all of whom are appointed as outside directors, meeting statutory requirements. Furthermore, two of the outside directors are accounting and financial experts, and the Audit Committee members have free access to the information necessary for their audit duties. In addition, if experts are required, the committee can seek advice from external experts at the company's expense.

Hansol Paper ensures a diverse composition for the fair and transparent selection of Audit Committee members to prevent the concentrated reflection of opinions from specific interest groups. In addition, to secure independence from management and controlling shareholders, Audit Committee members only receive compensation as directors and not any other remuneration. As the Audit Committee is composed entirely of outside directors, and there are no outside directors on the Audit Committee, there are no differences in compensation.

Hansol Technics

The Audit Committee of Hansol Technics comprises three outside directors with expertise in various fields, including accounting, finance, and internal control. Operating independently from the management, the committee performs key audit duties, including internal audits, financial statement reviews, and audit report verification. In particular, it independently reviews and deliberates on matters delegated by the Board of Directors and acts as a check on management's performance. The Audit Committee can conduct in-depth reviews of the operational status of the internal accounting control system and internal control systems, with the option of consulting external experts when necessary, and report the results to the Board of Directors. Furthermore, to enhance the independence of the Audit Committee, all members are outside directors, and non-outside directors cannot be appointed as audit committee members.

Enhancing Board Soundness

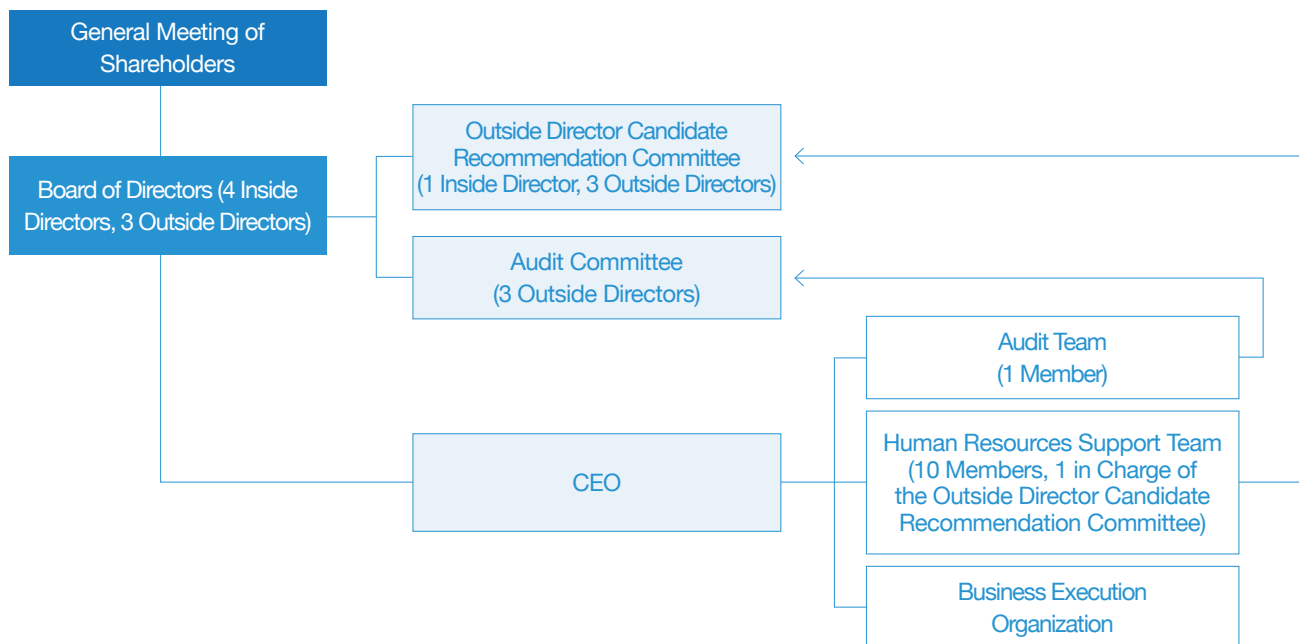
Board with Independence and Expertise

Hansol Holdings

The Board of Directors of Hansol Holdings plays a role in deciding on and supervising the company's major management issues in accordance with the relevant laws and articles of incorporation. The Board comprises seven members: four inside directors and three outside directors. In accordance with the law, outside directors do not serve for more than six years. In addition, the CEO serves as the Chairman of the Board to ensure swift decision-making and enhance corporate competitiveness. The head of the finance team participates in the Board meetings to ensure the transparent operation of the internal accounting control system. Since 2023, the results of the ESG materiality assessment and the review of the risk management system have been reported to the Board to strengthen ESG management.

• Board of Directors and Committee Organization Chart

*As of May 2025



The Board of Directors supports swift and efficient decision-making by operating committees with expertise and diversity. Inside directors are appointed based on their high level of expertise and experience in their respective fields, whereas outside directors are individuals who can provide advice on corporate growth and business activities while maintaining independence, in consideration of relevant laws and the Korea ESG Standards Institute guidelines. Through this, Hansol Holdings is establishing a system capable of realizing responsible management in areas such as shareholder value protection, management consultation, and compliance adherence.

• Current Status of Board Composition

Category	Name	Position	Appointment Date	Duration	Area of Responsibility and Expertise	Background
Inside Directors	Jo Dong-gil	Chairman	1994.02.25	2024.03.31 ~ 2027.03.30	-	B.A in Economics, Yonsei University (Current) Chairman of Hansol Group
	Lee Myung-gil	CEO	2024.03.26	2024.03.26 ~ 2027.03.27	-	B.A in Business Administration, Seoul National University, (Current) CEO of Hansol Holdings
	Jeon Hoon	Director	2019.03.26	2025.03.26 ~ 2028.03.25	Corporate Finance	Master's degree in business administration, Seoul National University, (Current) Managing Director of the Finance Team at Hansol Holdings
	Go Min-hyuk	Director	2020.03.30	2023.03.30 ~ 2026.03.29	Human Resources	MBA at Helsinki School of Business (Current) Director of HR Support at Hansol Holdings
Outside Directors	Kim Jong-il	Chairman of the Audit Committee, Member of the Outside Director Candidate Recommendation Committee	2024.03.26	2024.03.26 ~ 2027.03.27	Corporate Finance	(Current) Professor of Business Administration at the Catholic University of Korea
	Won Chang-yeon	Chairman of the Outside Director Candidate Recommendation Committee, Member of the Audit Committee	2023.03.29	2023.03.29 ~ 2026.03.29	Law	Master's degree at Yonsei University Law School, (Current) Attorney at law at Dongin Law Firm
	Hwang In-sun	Member of the Audit Committee, Member of the Outside Director Candidate	2025.03.26	2025.03.26 ~ 2028. 03.25	Finance	Master's in economics, Duke University, USA. (Former) Director of the Communications Department at the Bank of Korea / Deputy Director of the Korea Center for International Finance

• Current Status of Board Committee Composition

*As of May 2025

Committee Name	Composition	Member Directors	Purpose and Authority
Outside Director Candidate Recommendation Committee	- Outside Directors: 3 members - Inside Director: 1 member	Chairman Won Chang-yeon Member Lee Myung-gil Member Kim Jong-il Member Hwang In-sun	- Screening qualifications of candidates for outside directors and recommending candidates for outside directors to be appointed at the general meeting of shareholders - Other necessary matters for recommending candidates for outside directors
Audit Committee	Outside Directors: 3 members	Chairman Kim Jong-il Member Won Chang-yeon Member Hwang In-sun	- Reviewing the appropriateness of significant accounting policies or changes in accounting estimates - Evaluating the operational status of the internal accounting control system - Selecting the external auditor and contracting for their compensation and non-audit services - Evaluating the external auditor's audit activities - Other matters deemed necessary by each committee member

• Status of Hansol Holdings Outside Director Training

Training Date	Training Organizer	Attending Outside Directors	Reason for Non-Attendance	Main Training Content
2024.05.08	Korean Institute of Certified Public Accountants	Kim Jong-il (Individual Attendance)	-	Legal Responsibility of CPAs Regarding Valuation Services
2024.05.28	Korean Institute of Certified Public Accountants	Kim Jong-il (Individual Attendance)	-	A Study on Market Risk Premium in Korea
2024.08.09	Ernst & Young Han Young	Lee Nam Woo, Won Chang-yeon, Kim Jong-il	-	Internal Accounting Control System
2024.08.09	PwC Samil Accounting Corp.	Lee Nam Woo, Won Chang-yeon, Kim Jong-il	-	Corporate Value Enhancement Program
2024.09.05	Korean Auditors Association	Kim Jong-il (Individual Attendance)	-	Accounting Implications of AI Development and Practical Ways to Strengthen Corporate Governance
2024.09.12	Deloitte Korea Center for Corporate Governance	Kim Jong-il (Individual Attendance)	-	Program to Enhance the Expertise of Directors and Audit Committees
2024.10.03	Samjong KPMG Academy	Kim Jong-il (Individual Attendance)	-	Accounting Issues for the Audit Committee Vol.01: Project Financing Valuation and Post-Management
2024.11.05	Deloitte Korea Center for Corporate Governance	Kim Jong-il (Individual Attendance)	-	Effective Domestic and International Disclosure Supervision and Current Status that the Board of Directors and Audit Committee Should Know
2024.11.21	PwC Samil Governance Center	Kim Jong-il (Individual Attendance)	-	New Challenges for the Board of Directors: Directors' Fiduciary Duty and Practical Ways to Enhance Value
2024.11.29	ACF Audit Committee Forum	Kim Jong-il (Individual Attendance)	-	The 2nd Regular Forum for Auditors and Audit Committee Members in 2024

Within Hansol Group, nine companies, including Hansol Holdings, Hansol Paper, Hansol PNS, Hansol Technics, Hansol IONES, Hansol Logistics, Hansol HomeDeco, Hansol Inticube, Hansol Chemical, implemented a systematic training program for outside directors and audit committee members to enhance the expertise of their boards of directors.

Operation of the Outside Director Candidate Recommendation Committee

Hansol Holdings

Hansol Holdings operates an Outside Director Candidate Recommendation Committee to improve governance and enhance expertise. This committee comprises three outside directors and one inside director, with the outside directors contributing to decision-making based on their independent perspectives. It plays a crucial role in selecting outside director candidates before the general meeting of shareholders, carefully reviewing candidates recommended by major shareholders, executives, and external institutions. This process enhances the company's transparency, reflects shareholder opinions, and strengthens management independence. Furthermore, Hansol Holdings ensures the expertise and independence of outside directors by applying strict candidate selection criteria, expanding stakeholder representation, and establishing a fair and transparent decision-making structure through a public nomination system for shareholder recommendations.

Hansol Paper

Since 2023, Hansol Paper has been included as a large listed company with total assets exceeding KRW 2 trillion. Accordingly, to enhance fairness and independence in the recommendation and appointment processes of outside directors, the company established and implemented regulations for the Outside Director Candidate Recommendation Committee. This aims to promote sound management by increasing the expertise and transparency of the Board of Directors.

Hansol Technics

At the Board of Directors meeting on December 20, 2024, the establishment and regulations of the Outside Director Candidate Recommendation Committee were approved, and the committee was newly established as a board committee. During the reporting period, the plan for appointing outside directors was reported with a 100% attendance rate.

Hansol IONES

Despite not being obligated to establish a committee to recommend outside director candidates, Hansol IONES voluntarily introduced and established a committee to strengthen the independence and expertise of its outside directors.

In May 2023, following a vacancy for an outside director at Hansol IONES, the committee engaged in activities to recommend outside director candidates through a rigorous process that included reviewing recommendations and any disqualifying factors. Through these efforts, the company strives to ensure fairness and objectivity in appointing outside directors.

Hansol Chemical

The company has established an Outside Director Candidate Recommendation Committee to ensure transparency in its governance structure. It regularly manages potential outside director candidates annually and plans to appoint outside directors through this committee in the future.

Establishing Sound Corporate Governance

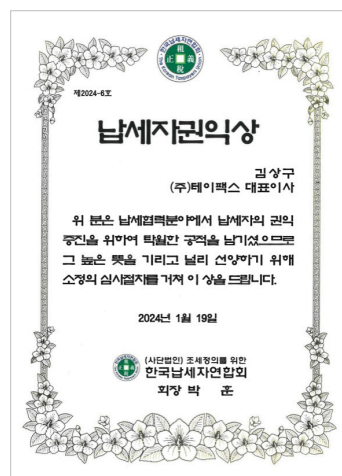
Hansol IONES

Hansol IONES has established and operates the Ethical Management and Transparency Enhancement Committee to build ethical management and a transparent governance structure. Composed of at least two external experts and at least one outside director, the Ethical Management and Transparency Enhancement Committee meets quarterly. Regular committee meetings involve reviewing the appropriateness of monthly corporate card transaction details of executives, monthly executive compensation payment details, and transaction details between executives and stakeholders. Hansol IONES strives to promote sustainable development by enhancing management transparency through the operation of the Ethical Management and Transparency Enhancement Committee.

Tapex

To strengthen communication with stakeholders and enhance transparency, Tapex revamped the sustainability management menu on its official website in September 2022 and has continuously shared ESG-related information. In 2024, Tapex updated its ESG performance and strengthened the disclosure of information in the areas of governance, safety and health, the environment, and society, thereby promoting more systematic ESG management. In particular, it newly disclosed regulations for the Board of Directors and the Audit Committee, as well as supplier support programs, and formalized environmental management responsibilities at the top management level, thereby concretizing its sustainability management efforts.

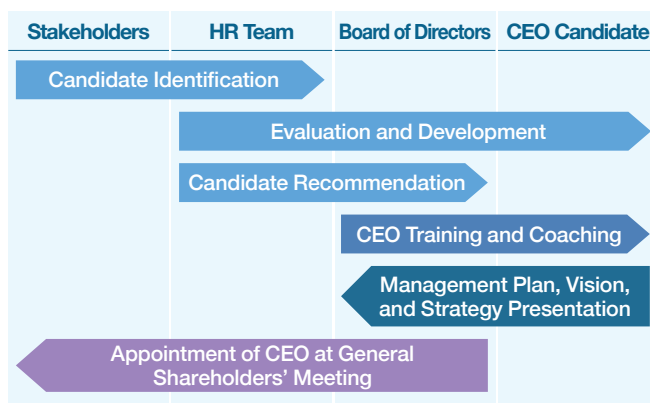
Furthermore, Tapex was recognized for its contribution to diligent tax payment by receiving the Taxpayer Award in the taxpayer category at the 12th Taxpayer Rights Award in January 2024, demonstrating its transparent and responsible management. The company will continue to expand its ESG information disclosure and diligently pay taxes to grow into an exemplary company that fulfills its social responsibilities.



CEO Succession Policy

Hansol Group

Hansol Group focuses on identifying and fostering potential Chief Executive Officer (CEO) candidates who can demonstrate outstanding leadership across its diverse business sectors. To achieve this, it has established a systematic selection process and advanced development strategies to build and continuously evaluate a pool of exceptional talent. Furthermore, to respond swiftly to rapidly changing business environments and prevent unexpected CEO vacancies, the Group regularly selects, reviews, and develops a candidate pool with expertise and experience in various fields.



ETHICS AND COMPLIANCE MANAGEMENT

Establishing a Compliance Organization

Hansol Technics

Hansol Technics has been operating the RM (Risk Management) Team as an independent organization directly under the CEO since 2022, focusing on long-term management stability and securing the trust of the market and customers. The RM Team is responsible for crucial tasks such as ethical management, compliance management, anti-corruption, and risk management. To prevent corruption, the RM Team goes beyond compliance activities and internal controls to actively strengthen communication by visiting partner companies directly and listening to their opinions. In addition, it conducts anonymous surveys to establish a fair and transparent transaction order, thereby striving to comply with regulations and eradicate corrupt practices. These efforts contribute to strengthening the company's compliance culture and creating a sound business environment.

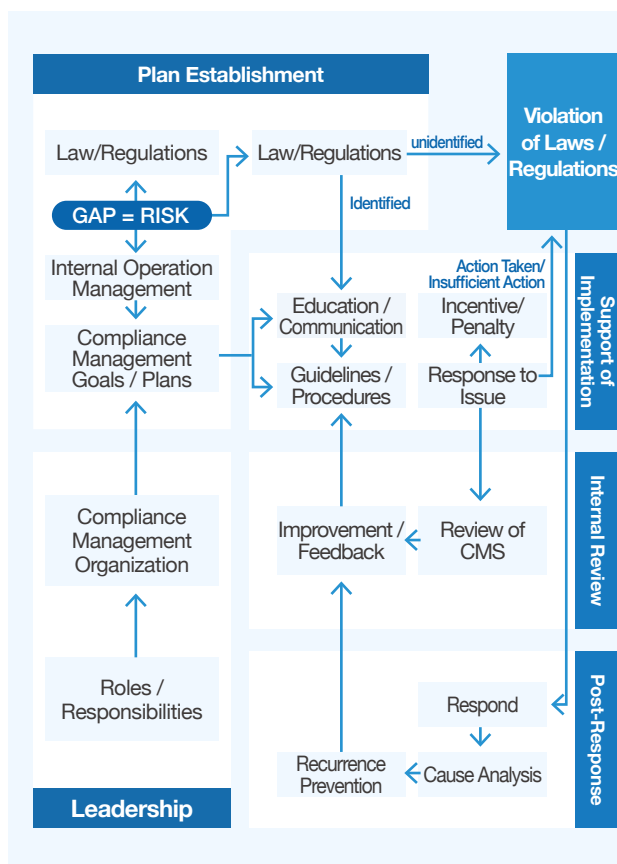
Establishing a Compliance Management System

Hansol Group

Hansol Group has established a Compliance Risk Management System to ensure that all departments and employees comply with regulations during their work processes. To this end, it conducts preliminary checks and continuously monitors and manages the results, reporting them regularly to management and the Board of Directors. The Group introduced a compliance management system evaluation in 2021, and in 2024, it conducted eight compliance management system evaluations across ten companies, focusing on compliance issues with a high potential for non-compliance. Through compliance management diagnostics, Hansol Group was able to spread the importance of and commitment to compliance management throughout the entire group. Moving forward, with the goal of establishing a compliance risk management system and strengthening execution in the field, Hansol Group will derive improvement tasks based on the diagnostic results for each affiliate to further enhance its compliance management processes. Furthermore, these six affiliates continued their efforts to reduce risks and strengthen compliance management by selecting urgent and immediately implementable compliance management tasks in areas where legal and regulatory compliance is required.

Hansol Group has established and operates a Compliance Risk Management System to conduct self-checks in advance to ensure that all departments and employees do not violate the applicable laws and regulations during their work processes. The company monitors and manages the results of these checks and regularly reports them to the Board of Directors and other management.

Strengthening Group-Wide Joint Compliance Management Process



Hansol Technics

To realize transparent and responsible management, Hansol Technics has established compliance control standards and appointed a Chief Compliance Officer to operate its compliance management system. The company conducts regular compliance checks and provides compliance training to employees. In addition, it operates a Subcontracting Committee to review the implementation of related laws and regulations and systematically manage the results. By reporting key compliance activities quarterly to the Board of Directors, Hansol Technics strengthens the accountability and oversight functions of management and enhances the effectiveness of its compliance management.

Hansol Paper

In 2024, Hansol Paper obtained the “Compliance Management System (ISO 37301)” certification, an international standard related to compliance management, from the Korea Management Registrar. To achieve this, the company established a mid to long-term compliance management roadmap and compliance risk management system to systematically manage potential risks. The operation of a continuous self-assessment compliance system and the ongoing compliance training received high praise. Furthermore, through a dedicated compliance risk department, Hansol Paper monitors compliance with laws and regulations and works to establish a transparent and fair transaction culture. With this certification, Hansol Paper has officially been recognized for its ethical and compliance management systems and is committed to fulfilling its social responsibilities through adherence to laws and ethics.



Operation of the ESG Working Group

Hansol Group

Since February 2024, Hansol Group has been operating a quarterly “ESG working level consultative body” with the participation of ESG representatives from the holding company and its affiliates. This consultative group serves as a platform for sharing ESG issues of each company and discussing response strategies, aiming to support representatives’ work performance and enhance their capabilities. It also shares ESG improvement tasks and achievements of each affiliate and explores strategies for responding to ESG evaluations. A total of eight companies participates in the consultative group, including Hansol Holdings, Hansol Paper, Hansol PNS, Hansol Technics, Hansol IONES, Hansol Logistics, Hansol HomeDeco, Hansol Inticube, with relevant field representatives also joining the discussions depending on the meeting topic.

Governance Disclosure

Hansol Group

Since 2024, companies listed on the KOSPI (Korea Composite Stock Price Index) with assets of KRW 500 billion or more are obligated to disclose a corporate governance report. Within Hansol Group, Hansol Holdings, Hansol Paper, Hansol Technics, and Hansol Chemical are subject to this requirement. Furthermore, Hansol Logistics, Hansol HomeDeco, and Hansol PNS, which are not obligated to disclose, voluntarily do so, demonstrating transparent management practices. Hansol Group has been voluntarily disclosing its corporate governance report since 2018, and its continuous efforts to enhance transparency have enabled it to maintain high ratings in ESG evaluations.

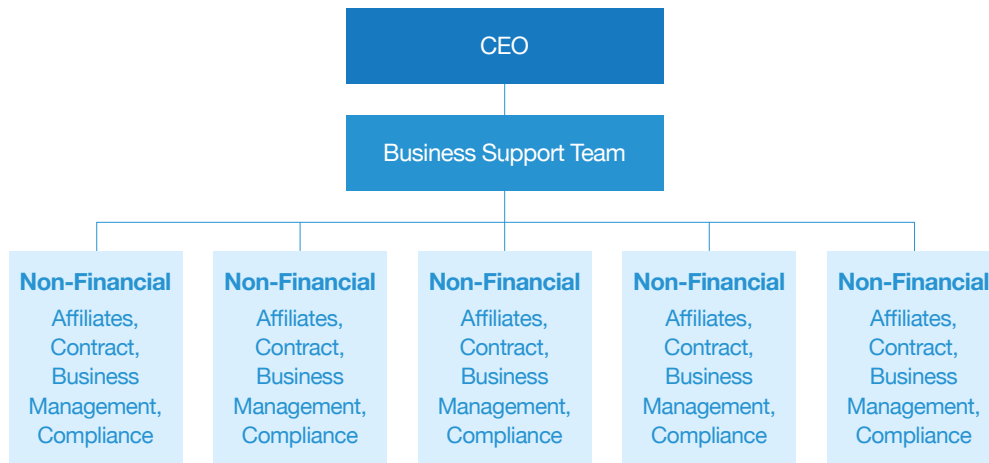
RISK MANAGEMENT

Group Risk Reporting System

Hansol Group

As a holding company, Hansol Holdings has established a Business Support Team directly under the CEO to effectively respond to changes in the internal and external business environment through periodic risk checks and swift responses. Non-financial risk management involves regular quarterly checks and ad-hoc checks as needed, whereas financial risk management is systematically managed through monthly checks followed by monthly financial reports. Through this, Hansol Holdings aims to strengthen its sustainable management foundation by establishing a comprehensive risk management system.

• Hansol Holdings Risk Reporting System



* Financial risks are managed by the specialized department as before.

• Risk Management Process

1 | Implementing Enterprise-Wide Integrated Risk Management

- Periodic Risk Management Status Evaluation
- Continuous Updates to Risk Classification Framework Annually (Addition, Supplementation, Deletion, etc.)
- Joint Checks with Affiliates on Potential Risks Arising from Investments and Contracts Exceeding a Certain Scale or with High Risk

2 | Risk-Management Team's reporting of material issues to the BoD

3 | Implementing Enterprise-Wide Integrated Risk Management

* (Affiliates) Monitoring changes in internal and external business environments and conducting regular and ad-hoc risk assessments.

Review and Implementation of Risk Management System Checks and Improvement Plans

Hansol Group conducts a comprehensive risk survey across all its affiliates based on the ‘Group Risk Classification Framework’ to holistically review the current status of risk management and establish improvement processes for items requiring supplementation. Based on the survey results, investment and contract matters that are subject to group investment and contract consultation or have a potential for risk occurrence are thoroughly reviewed by Hansol Holdings’ Business Support Team and Finance Team together with the relevant affiliates. Hansol Group will continue to update its risk items through regular checks to prevent risks and strengthen the sustainability of its management.

• Group Risk Classification Framework

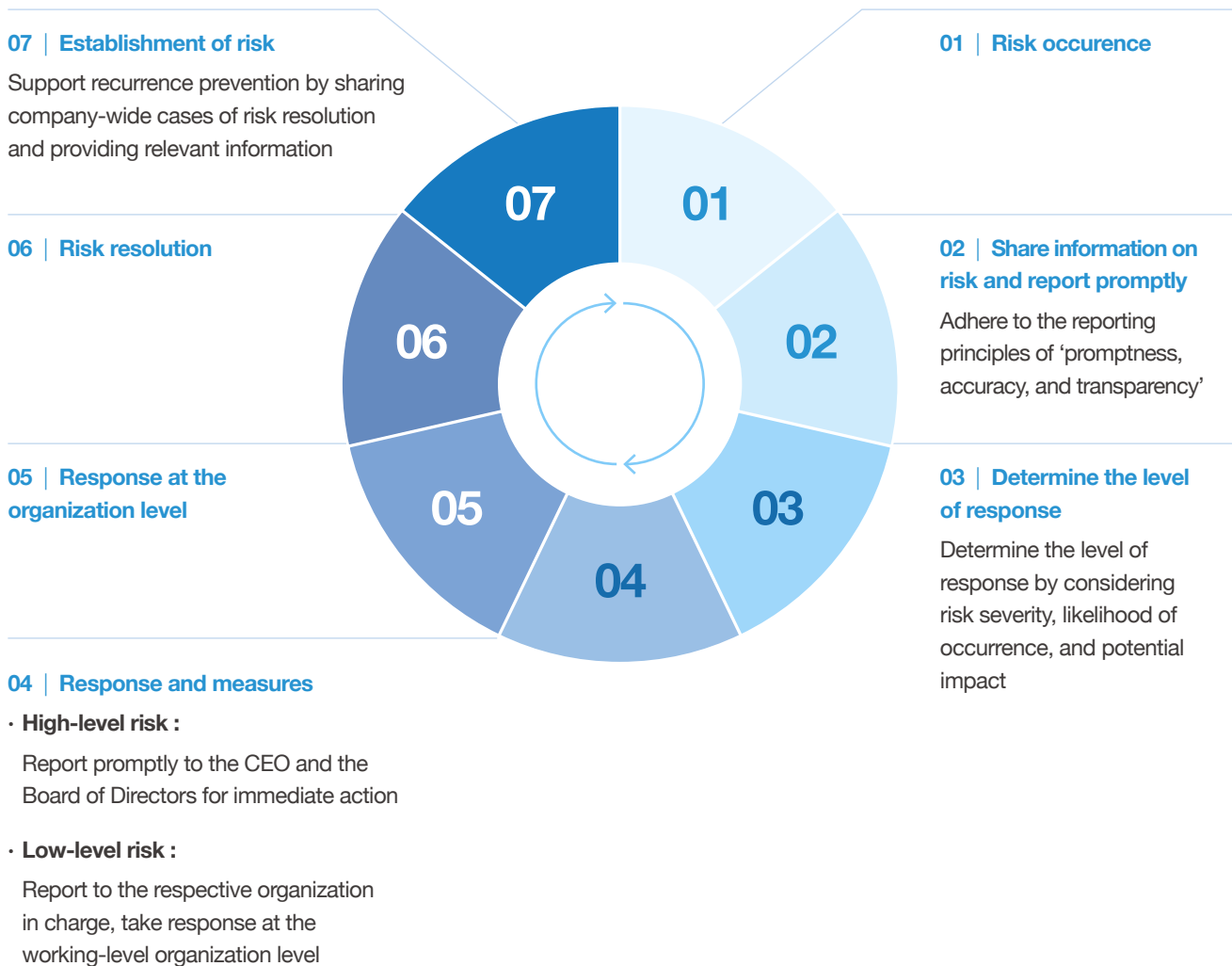
Category	Level 1	Level 2	Level 3
Financial Risk	Business	Market/Customer	Political/Legal
			Economic
			Social
			Technological
			Environmental
		Equity investment	Business Model Validation
			Expansion Potential and Vision Establishment
		System	Laws and Regulations
	Order Intake	Project	Project Structure
			Complaints
			Unfair Contract Terms
			Construction/Delivery Period
			Quality/Performance Guarantee
	Intellectual Property	Intellectual Property Infringement	Patents/Trademarks
Non-Financial Risk	Finance	Market	Exchange Rate
			Interest Rate
		Liquidity	Funding
			Profit/Loss
		Tax	Tax
		Credit	Credit Rating
	Compliance	Environment/Safety	Environment
			Safety
		Compliance	Fraud/Corruption
			Disclosure
	Operate	Security	-
		HR/Labor	-
		Supply Chain	-
		Quality/Certification	-
		Receivables Management	-
	External Communication	Crisis Response	Brand
		Brand	Damage to Brand Asset Value
		Market/Shareholder	IR

Group Risk Response Process

Hansol Group

Hansol Group effectively controls key risk factors through a systematic risk management process. When a risk occurs, it is promptly shared internally for immediate response. Operationally significant risk factors are prioritized and intensively managed. Furthermore, the Group thoroughly analyzes occurred risks to establish measures for preventing recurrence. At the holding company level, all subsidiaries' risks are comprehensively reviewed through a full investigation. This process also includes swiftly implementing supplementary actions in cooperation with subsidiaries, when necessary. This risk response system underpins Hansol Group's stable business operations and is a core strategy for sustainable growth and enhancing corporate value.

• Group Risk Response Process



Non-Financial Risk Management and Response

Hansol Group's affiliates are establishing risk management and response strategies as concrete ways to implement ESG management in their respective business areas. In November 2023, Hansol Holdings Board of Directors thoroughly reviewed the results of the ESG materiality assessment, analyzed the impact of non-financial factors on the company's long-term value and operations, and focused on systematically managing these risks. Hansol Paper has been regularizing the reporting of non-financial risks to its Board of Directors since August 2023, marking a new chapter in strengthening risk management and sustainable management activities within the organization. This approach enables the in-depth management and evaluation of seven non-financial areas identified through the company's materiality assessment—including compliance, human rights, safety and health, climate change (carbon neutrality), information security, product environmental regulations, and supply chain—thereby contributing to company-wide risk management and response strategies. Hansol Technics effectively manages company-wide risks through quarterly risk management and reviews, and reports the status of risk management to its Board of Directors semi-annually. In 2024, through resolutions on safety and health management plans, company-wide risk management systems, and human rights management, we reported on the status and issues of activities in the area of non-financial risks.

Hansol Paper

• Hansol Paper's Response to Non-Financial Risk

Risk	Influences	Response to Risk	Dept-in Charge
Compliance Risk	• Occurrence of administrative sanctions and liability for damages due to regulatory violations. • Occurrence of legal dispute costs.	• Proactive prevention of risks through compliance with laws and compliance control standards, and management of legal disputes through analysis of statutes and precedents.	RM Team
Human Rights Risk	• Occurrence of legal dispute costs and decline in corporate reputation due to human rights violations.	• Declaration and Public Disclosure of Human Rights Management Principles. • Guidance on Human Rights Grievance Procedures and Operation of Educational Programs.	HR Team
Environmental Safety Risk	• Need for preparation due to strengthened legal regulations such as the Serious Accidents Punishment Act and the Occupational Safety and Health Act. • Occurrence of liability for damages and decline in corporate reputation in the event of safety accidents. • Serious impact on business operations due to conflicts with the local community, etc.	• Establishment of emergency response systems for each workplace and operation of regular safety training programs.	Safety Operation Team
Climate Change Risk	• Costs incurred for purchasing emission allowances if carbon emission reduction targets are not met. • Potential imposition of fines. • Risks to export sales due to carbon border adjustment mechanisms, etc.	• Establishment of mid to long-term greenhouse gas reduction targets and performance monitoring. • Expansion of investment in energy saving. • Expansion of renewable energy (such as solar power). • Research and development of carbon capture, utilization, and storage (CCUS) technology.	ESG T/F
Product Environmental Regulation Risk	• Poor sales of products that do not meet environmental standards and a disadvantage in quality competition with competitors. • Customers' demand for carbon certification of products.	• Establishment of company-wide goals for the development and application of eco-friendly technologies and the expansion of related research. • Expansion of eco-friendly certified products. • Development of Hansol's In-house 'LCA' Assessment Solution.	Marketing Team
Supply Chain Risk	• Price instability due to increased demand for raw materials. • Inability to forecast demand due to increased volatility in customer demand. • Departure of small and micro-sized partner companies due to economic recession.	• Derivation of key management risks for each business segment and establishment of response strategies through risk analysis and assessment. • Establishment and strengthening of mid to long-term supply chain management plans. • Strengthening support activities for partner companies.	Raw Materials Team Materials Team
Information Security Risk	• Loss of business rights and intellectual property due to leakage of core information. • Possibility of disputes arising from personal information leaks.	• Compliance with information security policies, preventing unauthorized leakage through document encryption and strengthening security systems.	Management Innovation Team

Hansol Technics

• Organizational System and R&R



RM Team

- Overall Enterprise Risk Management
- Supporting and controlling risk management tasks handled by each organization

Each Business Organization and Functional Organization

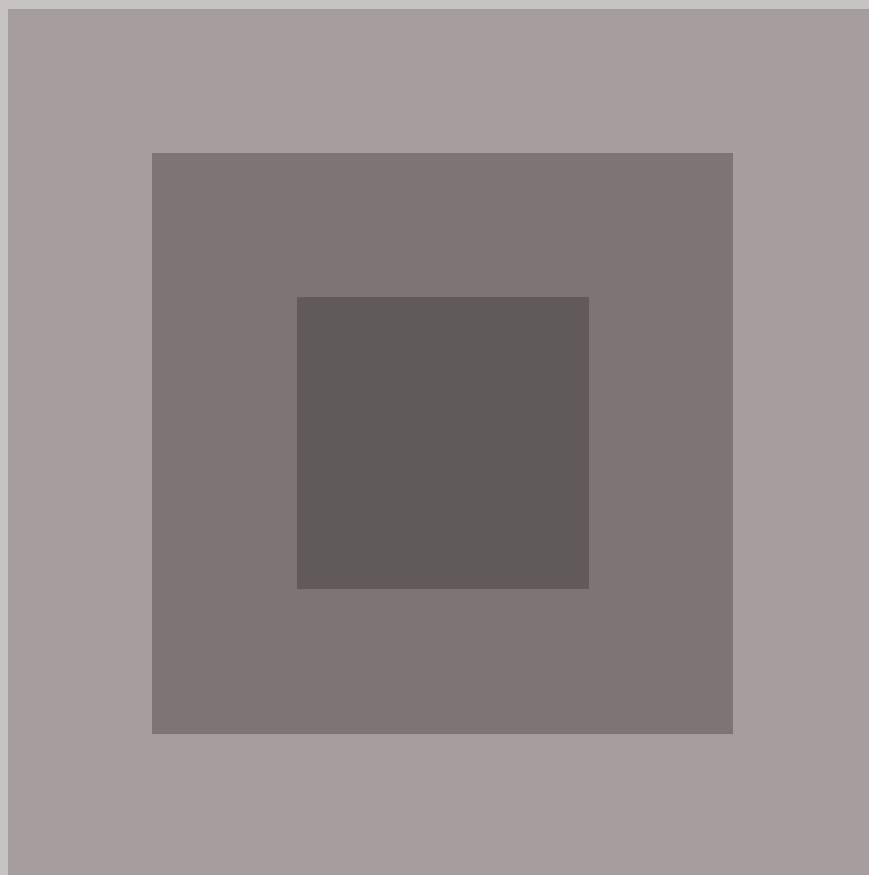
- Responsibility for managing and reporting risks related to assigned tasks/duties

• Reporting Status by Risk Area

Reporting Target	Category	Risk Area	Managing (Reporting) Department	Reporting Details (Reporting Timing)
Board of Directors	- Financial - Environmental/Social - Compliance - Operational	- Exchange Rate/Interest Rate/Liquidity/Tax/Credit - Environment/Safety/Human Rights Management - Disclosure/Regulatory Compliance/Business Ethics - Information/Supply Chain/Quality/Internal Control	- Finance - Human Resources - Finance, Human Resources, RM - Finance, RM, Each Business Organization	- Business Performance (Each Quarter) - Safety (February), Human Rights (October), Environment (December) - Compliance Management Status (Each Quarter) - Supply Chain (Report once a year, scheduled for December)
		- Strategy, New Business, Order Intake - Intellectual Property Rights, Brand, IR	- Strategic Innovation, New Business, Each Business Organization - Strategic Innovation, Finance, Human Resources, RM	Risk Review Results (Each Quarter)

6

ESG FACTBOOK



114	Hansol Holdings
116	Hansol Paper
118	Hansol PaperTech
120	Hansol PNS (Paper Distribution Division)
122	Hansol PNS (IT Service)
124	Hansol Technics
126	Hansol IONES
128	Hansol Logistics
130	Hansol HomeDeco
132	Hansol Inticube
134	Hansol Chemical
136	Tapex

I HANSOL HOLDINGS

Economy

Classification	Unit	2022	2023	2024
Income Statement	Sales	34,361	34,554	29,888
	SG&A expenses	18,082	19,284	16,980
	Operating income	16,279	15,270	12,908
	Financial income	1,470	2,788	3,345
	Financial expenses	1,037	1,381	535
	Other income	248	234	201
	Other expenses	2,770	5,454	51,164
	Net income before tax	14,190	11,457	15,868
Balance Sheet	Current assets	73,919	85,077	58,311
	Assets Non-current assets	382,738	379,151	405,399
	Current liabilities	10,299	15,301	9,455
	Liabilities Non-current liabilities	6,566	5,118	3,851
	Capital	439,792	443,810	450,404

(Based on separate financial statements)

Classification	Unit	2022	2023	2024
Income statement	Sales	467,211	443,135	791,640
	Gross profit	59,964	52,701	62,718
	SG&A expenses	40,866	48,702	55,238
	Operating profit	19,098	3,999	7,479
	Financial income	2,117	3,399	4,908
	Financial expenses	2,379	3,133	4,177
	Other income	2,744	1,856	21,459
	Other expenses	2,234	10,316	17,400
	Net income before tax	57,651	4,033	2,207
Balance Sheet	Current assets	201,195	205,289	351,031
	Assets Non-current assets	522,101	514,816	582,128
	Current liabilities	110,793	113,964	219,177
	Liabilities Non-current liabilities	15,170	11,914	40,625
	Controlling company shareholders' equity	568,041	567,950	568,848
	Capital Non-controlling company shareholders' equity	29,292	26,277	104,510

(Based on consolidated financial statements)

Social

Classification			Unit	2022	2023	2024	
Total number of employees	Total number of employees		Persons	46	55	43	
Employee Status (by Employment Type)	Executives	Total	Persons	8	9	8	
		Female		0	0	0	
		Male		8	9	8	
	Full-time employees	Total		36	44	33	
		Female		10	10	10	
		Male		26	34	23	
	Non-regular employees ¹⁾	Total		2	2	2	
		Female		1	1	0	
		Male		1	1	2	
	Outsourced workers			0	0	0	
Employee status (by work type)	Full-time	Persons	44	55	43		
	Part-time		2	0	0		
Employee status (by location)	Domestic	Persons	44	55	43		
	Overseas		0	0	0		
Employee diversity	No. of male employees		Persons	35	34	10	
	Ratio of male employees		%	76.0	78.0	50.0	
	No. of female employees		Persons	11	10	10	
	Ratio of female employees		%	24.0	22.0	50.0	
	No. of male executives		Persons	8	9	8	
	Ratio of male executives		%	100.0	100.0	100.0	
	No. of female executives		Persons	0	0	0	
	Ratio of female executives		%	0.0	0.0	0.0	
	No. of male managers (manager level or higher)		Persons	30	32	17	
	Ratio of male managers (manager level or higher)		%	91.0	97.0	89.0	
	No. of female managers (manager level or higher)		Persons	3	1	2	
	Ratio of female managers (manager level or higher)		%	9.0	3.0	11.0	
	Hiring of social minorities	No. of employees with disabilities		Persons	0	0	0
		Ratio of employees with disabilities		%	0.0	0.0	0.0
		No. of senior employees (55 years of age or more, excluding executives)		Persons	5	6	6
		Ratio of senior employees		%	11.0	10.9	14.0
		No. of foreign employees		Persons	2	2	2
		Ratio of foreign employees		%	4.3	4.0	5.0
		No. of employees with high school degree		Persons	2	1	2
		Ratio of employees with high school degree		%	4.0	2.0	5.0
		No. of veterans		Persons	0	0	0
		Ratio of veterans		%	0.0	0.0	0.0
	Employees composition	No. of employees (Under 30 years of age)		Persons	1	1	0
		Percentage (Under 30 years of age)		%	2.0	2.0	0.0
		No. of employees (30~50 years of age)		Persons	35	39	34
		Percentage (30~50 years of age)		%	76.0	78.0	79.0
		No. of employees (50 or more years of age)		Persons	10	10	9
		Percentage (50 or more years of age)		%	22.0	20.0	21.0
	New hires	Male		Persons	6	3	3
		Female			2	0	0
By age		Under 30 years	1		0	0	
		30~50 years	7		3	2	
		Above 50 years	0		0		

Classification			Unit	2022	2023	2024	
Employee compensation	Base salary and remuneration by gender	Average salary of male employees	KRW million	196.1	188.8	200.9	
		Average salary of female employees		67.6	70.2	78.1	
		Ratio of base salaries of female to male employees	%	34.0	37.2	38.9	
		Average salary of male executives	KRW million	446.4	434.1	381.4	
		Average salary of female executives		0.0	0.0	0.0	
		Ratio of base salaries of female to male executives	%	0.0	0.0	0.0	
		Average salary of male full-time employees	KRW million	117.2	109.6	128.7	
		Average salary of female full-time employees		71.9	71.1	78.1	
		Ratio of base salaries of female to male full-time employees	%	61.0	64.9	60.7	
		Average salary of male non-regular employees	KRW million	82.5	78.0	309.8	
		Average salary of female non-regular employees		24.7	61.0	0.0	
		Ratio of base salaries of female to male non-regular employees	%	30.0	78.2	0.0	
		Job security	Average years of service	Years	9.7	9.1	11.4
			Total employee turnover	Persons	13	13	6
Voluntary turnover	%		19.6	3.6	14.0		
Non-voluntary turnover	%		8.7	20.0	0.0		
Talent development	Beneficiaries of training ²⁾	Persons	46	55	43		
	Total training expenses	KRW million	102	103	104		
	Training costs per employee	KRW 1,000	2,222	2,064	2,409		
	Total training hours	Hours	1,054	2,087	2,023		
Industrial accidents	No. of industrial accidents	Cases	0	0	0		
	Industrial accident rate	%	0.0	0.0	0.0		
	No. of deaths	Persons	0	0	0		
	No. of injuries		0	0	0		
	Employee lost time injury frequency rate (LTIFR) ³⁾	%	0.0	0.0	0.0		
	Lost work hours	hours	0	0	0		
Fair trade	No. of fair-trade law violations	Cases	0	0	0		
	Fines	KRW million	0	0	0		
No. of information-security breaches	Customer data leakage, theft, and loss	Cases	0	0	0		
Workplace discrimination	No. of complaints filed related to workplace discrimination	Cases	0	0	0		
Parental leave	Employees who have taken parental leave	Total	1	1	1		
		Male	0	0	0		
		Female	1	1	1		
	No. of employees who have returned to work after parental leave	Total	1	1	0		
		Male	0	0	0		
		Female	1	1	0		
	Percentage of employees who returned after parental leave	%	100.0	100.0	0.0		
	Employees who continued to work after parental leave	Total	0	1	1		
		Male	0	0	0		
		Female	0	1	1		
Percentage of employees who continued to work after parental leave	%	0.0	100.0	100.0			

Classification		Unit	2022	2023	2024
Human rights policy and procedure	Human rights training hours (per employee)	Hours	1	0	0
	Number of employees who completed human rights training	Persons	46	0	0
	Ratio of employees who completed human rights training	%	100.0	0.0	0.0
	Duration of training on workplace bullying prevention	Total hours (per employee)	46(1)	55(1)	43(1)
	Duration of education for sexual harassment prevention	Total hours (per employee)	46(1)	55(1)	43(1)
	Other training (e.g., disability rights education)		46(1)	55(1)	43(1)
CSR	Investment in CSR (including donations)	Total	10.0	0.0	39.7
		Cash donation	10.0	0.0	39.4
		Non-cash donation	0.0	0.0	0.3
		Business expense	0.0	0.0	0.0
	Total volunteer hours	Hours	564	360	0
	Average volunteer hours per employee	Hours	12	9	0
	Direct and indirect beneficiaries of the support programs	Persons	406	58	131

1) Non-regular employees at each affiliate are responsible for security, cleaning, and cooking duties.

2) Due to a change in the calculation criteria, data for 2022 and 2023 have been revised.

3) Lost time frequency rate is calculated per one million working hours.

Governance

Classification		Unit	2022	2023	2024
Operation of the Board of Directors	No. of board meetings	Times	6	6	8
	Agendas	Cases	13	13	22
	Preliminary deliberation	%	100.0	100.0	100.0
	Reporting items	Cases	8	11	16
	Amended resolution items		0	0	0
	BoD participation rate	%	100.0	100.0	100.0
	Non-executive attendance rate	%	100.0	100.0	100.0
Board diversity	Male	Persons	7	7	7
	Female	Persons	0	0	0
	Ratio of female directors within the BoD	%	0.0	0.0	0.0
	No. of outside directors	Persons	3	3	3
Anti-corruption at the workplace	Ratio of outside directors	%	42.9	42.9	42.9
	Total number of business sites	Number	1	1	1
	Number of business sites assessed for corruption risks		0	0	0
Anti-corruption policy and procedure	Percentage of business sites assessed for corruption risks	Number	0.0	0.0	0.0
	Duration of ethics training	Hours (Per employee)	1	1	1
	No. of employees who signed the ethics pledge	Persons	46	55	43
	Ratio of employees who signed the ethics pledge	%	100.0	100.0	100.0
Anti-corruption Violation Cases	Number of anti-corruption violation cases	Cases (Persons)	0	0	0

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Environmental

Classification			Unit	2022	2023	2024
Raw Material Consumption	Amount of raw materials consumed		Tons	1,211,504	1,079,328	1,234,766
Consumption of Recycled Input Materials	Amount of recycled materials (reused raw materials) consumed		Tons	562,309	494,065	609,678
	Ratio of recycled materials (reused raw materials) consumed		%	46.0	46.0	49.0
Consumption of energy	Total energy consumed			16,968	16,204	16,798
	Scope 1 energy consumption		TJ	2,176	1,476	1,732
	Scope 2 energy consumption			13,405	13,210	13,683
	Energy intensity		TJ/ KRW billion	6.9	7.4	7.5
Water Consumption (Usage, Domestic Standard)	Total water consumption ¹⁾			30,530,836	25,849,173	25,668,521
	Potable water consumption			6,181,350	6,226,477	5,546,613
	Groundwater consumption		Tons	253,947	199,165	220,915
	Water reuse	Amount of water reused		9,780,699	9,478,676	9,540,459
		Water reuse rate	%	32.0	37.0	37.0
	Water discharge	Amount of water discharged	m³	14,671,073	14,370,219	14,932,609
GHG emissions	Emissions	Direct emissions (Scope 1)		303,070	274,044	266,366
		Indirect emissions (Scope 2)	tCO ₂ eq	725,892	727,828	750,362
Emission of air pollutants	Emissions	SOx		15.0	9.0	12.8
		NOx		8,982	139	149
		POP		0.0	0.0	0.0
		VOC	Tons	0.0	0.0	0.0
		HAP		0.0	0.0	0.0
		PM		184.0	12.0	43.0
Emission of water pollutants	Emissions	PFC		0.0	0.0	0.0
		BOD		27.4	5.0	30.0
		TOC		34.9	27.7	45.0
		COD	ppm	74.1	21.5	80.0
		SS		95.1	10.3	89.0
	TN		45.1	10.0	8.0	
Air Pollutant Management	Air pollutant intensity		kg/ Metricton	-	0.06	1.34
	Total production volume		Metrictons	-	1,536,670	153,746
Waste	Total amount of waste (Waste treatment volume, based on domestic data)	Amount of waste generated		346,280	319,318	315,397
		Business waste		323,015	298,740	303,976
		Designated waste	Tons	5,317	5,737	6,733
		Household waste		17,947	14,840	4,688
	Amount of waste recycled	Recycled amount		134,559	105,564	121,646
		Industrial waste	Tons	323,015	298,740	303,976
		Designated waste		5,289	5,737	6,712
		Domestic waste		17,947	14,840	4,688
		Ratio of recycled amount	%	40.0	33.0	39.0
	Waste management	Industrial waste generation		-	-	-
Total waste generation		Metrictons	-	-	-	
Hazardous (chemical) substances emission	Amount of hazardous substance emitted		Tons	11,526	975	167
	No. of emissions		Cases	0	0	0
	Emissions amount		Tons	0.0	0.0	0.0
Violation of environmental laws and regulations	Fines	KRW/ million	2.0	0.5	0.4	

Classification		Unit	2022	2023	2024	
Environmental expenses and investments	Investment in environmental protection	Environmental investment costs	KRW million	1,488	5,390	14,700
Green product sales	Sales of green products and services		KRW 100 million	4,930	4,663	4,991
	Total sales			24,580	21,941	21,205
	Ratio of green sales		%	20.1	21.3	23.5
	Eco-certified products		numbers	-	-	-
Climate Target Setting (SBTi Target)	Base year greenhouse gas emissions		Tons	-	-	1,028,956
	Greenhouse gas emission reduction rate from base year		%	-	-	15.0
	Emission reduction achievement rate			-	-	2.0
	Estimated annual total cO ₂ reduction		tCO ₂ eq	-	-	10,000
	Total number of business sites		Numbers	-	-	6
Environmental Management System (EMS)	Number of EMS certified business sites			-	-	4
	Ratio of EMS certified business sites		%	-	-	67.0
	Number of environmental law violations		Cases	-	-	1

1) Total water usage = tap water + groundwater + surface water + recycled water

Governance

Classification		Unit	2022	2023	2024
Compliance check	Number of checks	Cases	26	23	32
Compliance check rate	Janghang mill	%	100	100	100
	Daejeon mill	%	100	100	100
	Cheonan mill	%	100	100	100
	Shintanjin mill	%	100	100	100
	Headquarter (Environmental business division)	%	100	100	100
Compliance check result - number of material issues	Janghang mill	Cases	-	-	-
	Daejeon mill	Cases	-	-	-
	Cheonan mill	Cases	-	-	-
	Shintanjin mill	Cases	-	-	-
	Headquarter (Environmental business division)	Cases	-	-	-

* Includes self-compliance checks and compliance inspections for each department.

Social

Classification			Unit	2022	2023	2024
Total number of employees	Total number of employees		Persons	1,657	1,658	1,694
Employee Status (by Employment Type)	Executives	Total	Persons	24	25	23
		Female		0	1	1
		Male		24	24	22
	Full-time employees	Total		1,575	1,603	1,648
		Female		129	134	140
		Male		1,447	1,469	1,508
	Non-regular employees	Total		64	36	46
		Female		14	11	11
		Male		50	25	35
	Outsourced workers			0	0	0
Employee status (by work type)	Full-time	Persons	1,575	1,658	1,694	
Employee status (by location)	Part-time	Persons	0	0	0	
	Domestic	Persons	1,639	1,620	1,662	
	Overseas	Persons	18	19	32	

Classification		Unit	2022	2023	2024		
Employee diversity	No. of male employees	Persons	1,514	1,512	1,543		
	Ratio of male employees	%	91.4	91.2	91.1		
	No. of female employees	Persons	143	146	151		
	Ratio of female employees	%	8.6	8.8	8.9		
	No. of male executives	Persons	24	24	23		
	Ratio of male executives	%	100.0	96.0	96.0		
	No. of female executives	Persons	0	1	1		
	Ratio of female executives	%	0.0	4.0	4.0		
	No. of male managers (manager level or higher) ¹⁾	Persons	656	349	367		
	Ratio of male managers (manager level or higher)	%	98.5	97.2	97.1		
	No. of female managers (manager level or higher) ¹⁾	Persons	10	10	1		
	Ratio of female managers (manager level or higher)	%	1.5	2.8	2.9		
	Hiring of social minorities	No. of employees with disabilities	Persons	43	41	44	
		Ratio of employees with disabilities	%	2.9	2.5	2.6	
		No. of senior employees (55 years of age or more, excluding executives)	Persons	100	145	171	
		Ratio of senior employees	%	7.0	8.9	10.1	
		No. of foreign employees	Persons	0	0	0	
		Ratio of foreign employees	%	0.0	0.0	0.0	
		No. of employees with high school degree	Persons	738	801	831	
		Ratio of employees with high school degree	%	51.7	48.9	49.1	
		No. of veterans	Persons	24	22	20	
		Ratio of veterans	%	1.5	1.3	1.2	
	Employees composition	No. of employees (Under 30 years of age)	Persons	254	249	270	
		Percentage (Under 30 years of age)	%	15.0	15.2	15.9	
		No. of employees (30~50 years of age)	Persons	917	850	845	
		Percentage (30~50 years of age)	%	55.0	51.9	49.9	
		No. of employees (50 or more years of age)	Persons	486	540	579	
		Percentage (50 or more years of age)	%	29.0	33.0	34.2	
	New hires	Male		211	159	200	
		Female		26	22	27	
		By age	Under 30 years	Persons	124	128	127
			30~50 years		75	53	80
	Above 50 years		0	0	20		
Employee compensation	Base salary and remuneration by gender	Average salary of male employees	KRW million	90.0	76.8	77.0	
		Average salary of female employees	KRW million	64.0	55.9	56.0	
		Ratio of base salaries of female to male employees	%	72.0	72.8	72.7	
		Average salary of male executives	KRW million	338.0	530.0	381.0	
		Average salary of female executives	KRW million	0	0	48	
		Ratio of base salaries of female to male executives	%	0.0	0.0	12.6	
		Average salary of male full-time employees	KRW million	61.0	73.5	77.8	
		Average salary of female full-time employees	KRW million	48.0	54.7	55.2	
		Ratio of base salaries of female to male full-time employees	%	78.0	74.4	71.0	
		Average salary of male non-regular employees	KRW million	43.0	42.6	29.0	
		Average salary of female non-regular employees	KRW million	26.0	26.1	22.2	
		Ratio of base salaries of female to male non-regular employees	%	61.0	61.3	76.4	
		Job security	Average years of service	Years	15.8	16.0	15.6
			Total employee turnover	Persons	182	197	175
Voluntary turnover	%		8.8	9.9	7.6		

Classification		Unit	2022	2023	2024
Talent development	Beneficiaries of training	Persons	1,657	1,658	1,694
	Total training expenses	KRW million	1,226	1,179	1,781
	Training costs per employee	KRW 1,000	740	719	1,051
	Total training hours		84,376	88,506	81,708
	Average training hours per employee	Hours	51	54	50
	No. of industrial accidents	Cases	3	4	12
Industrial accidents	Industrial accident rate	%	0.28	0.31	0.73
	No. of deaths	Persons	0	0	0
	No. of injuries	Persons	3	4	12
	Employee lost time injury frequency rate (LTIFR) ²⁾	%	0.0	0.0	4.0
	Lost work hours	Hours	9,336	11,328	32,928
Fair trade	No. of fair-trade law violations	Cases	0	0	0
	Fines	KRW million	0	0	0
No. of information-security breaches	Customer data leakage, theft, and loss	Cases	0	0	0
Workplace discrimination	No. of complaints filed related to workplace discrimination	Cases	0	0	0
Parental leave	Employees who have taken parental leave	Total	4	9	15
		Male	0	3	5
		Female	4	6	10
	No. of employees who have returned to work after parental leave	Total	4	8	7
		Male	0	2	3
		Female	4	6	4
	Percentage of employees who returned after parental leave	%	80.0	100.0	100.0
	Employees who continued to work after parental leave	Total	4	6	9
		Male	0	2	3
		Female	4	4	6
	Percentage of employees who continued to work after parental leave	%	100.0	100.0	100.0
Human rights policy and procedure	Human rights training hours (per employee)	Hours	6	3	3
	Number of employees who completed human rights training	Persons	-	1,639	1,672
	Ratio of employees who completed human rights training	%	-	100.0	100.0
	Duration of training on workplace bullying prevention	Total	1,788(1)	1,658(1)	1,731
	Duration of education for sexual harassment prevention	hours (per employee)	1,732(1)	1,658(1)	1,916
	Other training (e.g., disability rights education)		1,620(1)	1,658(1)	1,647
CSR	Investment in CSR (including donations)	Total amount	328	501	303
		Cash donation	324	476	250
		Non-cash donation	-	2	53
		Business expense	4	23	0
	Total volunteer hours		230	430	200
	Average volunteer hours per employee	Hours	4.0	2.0	0.1
	Direct and indirect beneficiaries of the support programs	Persons	700	680	700

1) The method for calculating the number of managers has changed starting from the previous year's report.

2) The proportion of accidents occurring per one million working hours.

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Environmental

Classification		Unit	2022	2023	2024
Raw Material Consumption	Amount of raw materials consumed	Tons	292,719	261,697	326,416
Consumption of Recycled Input Materials	Amount of recycled materials (reused raw materials) consumed	Tons	270,925	237,893	326,416
	Ratio of recycled materials (reused raw materials) consumed	%	92.6	91.0	100.0
Consumption of energy	Total energy consumed		1,449	1,393	1,136
	Scope 1 energy consumption	TJ	352	-	354
	Scope 2 energy consumption		1,097	-	782
Water Consumption (Usage, Domestic Standard)	Total water consumption		1,433,016	1,730,465	281,214
	Potable water consumption		9,227	17,615	13,792
	Groundwater consumption	Tons	1,152,055	267,488	253,630
	Seawater consumption		271,734	910,585	13,792
	Water reuse		38,449	543,850	374,210
	Water reuse rate	%	2.7	45.5	133.1
	Water reuse rate %		2.7	45.5	133.1
GHG emissions	Direct emissions (Scope 1)		75,061	77,731	87,715
	Indirect emissions (Scope 2)	tCO ₂ eq	35,059	34,270	37,384
Emission of air pollutants	SO _x		2.2	5.9	4.8
	NO _x		26.8	32.3	28.3
	POP		-	-	0
	VOC	kg	-	-	0
	HAP		-	-	0
	PM		1.6	1.3	0.8
Air Pollutant Management	PFC		245,736	0.0	0.0
	Air pollutant intensity	kg/Metricton	-	-	0.1
Emission of water pollutants	Total production volume	Metrictons	-	-	270,847
	BOD		1.8	0.0	0.0
	TOC		20.2	11.3	15.2
	COD	ppm	-	-	0.0
	SS		4.1	3.7	2.9
	TN		4.5	4.8	4.2
Waste	Total amount of waste (Waste treatment volume, based on domestic data)		11,665	15,658	18,989
	Business waste		9,935	13,479	16,625
	Designated waste		1,730	2,179	2,364
	Household waste	Tons	0.0	0.0	0.0
	Recycled amount		3,147	1,881	0
	Industrial waste		9,935	1,873	1,331
	Designated waste		1,730	8	0.0
	Domestic waste		0.0	0.0	0.0
Hazardous (chemical) substances emission	Ratio of waste recycle	%	26.9	12.0	0.0
	Amount of hazardous substance emitted	Tons	0.0	0.0	0.0
	No. of emissions	Cases	0	0	0
	Emissions amount	Tons	0.0	0.0	0.0

Classification		Unit	2022	2023	2024
Violation of environmental laws and regulations	Fines	KRW million	0	0	5
Environmental expenses and investments	Investment in environmental protection		932	712	40
	Environmental investment costs	KRW million	6,248	0.0	0.0
Green product sales	Sales of green products and services	KRW million	296	2,059	229,698
	Total sales	KRW million	130,363	108,020	229,698
	Ratio of green sales	%	0.2	1.9	100.0
Environmental Management System (EMS)	Eco-certified products	Items	-	-	3
	Total number of business sites		-	-	1
	Number of EMS certified business sites	Cases	-	-	1
	Ratio of EMS certified business sites	%	-	-	100.0

Social

Classification		Unit	2022	2023	2024
Total number of employees	Total number of employees	Persons	143	145	145
Employee Status (by Employment Type)	Executives	Total	4	3	4
		Female	0	0	0
		Male	4	3	3
	Full-time employees	Total	124	127	126
		Female	4	5	5
		Male	120	122	121
	Non-regular employees ¹⁾	Total	13	15	15
		Female	0	0	0
		Male	13	15	15
	Outsourced workers		2	1	1
Employee status (by work type)	Full-time	Persons	143	145	145
	Part-time	Persons	0	0	0
Employee status (by location)	Domestic	Persons	143	145	145
	Overseas	Persons	0	0	0
Employee diversity	No. of male employees	Persons	137	140	140
	Ratio of male employees	%	97.0	96.6	97.2
	No. of female employees	Persons	4	5	5
	Ratio of female employees	%	3.0	3.4	3.4
	No. of male executives	Persons	4	3	3
	Ratio of male executives	%	100.0	100.0	100.0
	No. of female executives	Persons	0	0	0
	Ratio of female executives	%	0.0	0.0	0.0
Employee diversity	No. of male managers (manager level or higher)	Persons	26	26	25
	Ratio of male managers (manager level or higher)	%	96.0	96.0	96.0
	No. of female managers (manager level or higher)	Persons	1	1	1
	Ratio of female managers (manager level or higher)	%	4.0	3.0	4.0

Classification			Unit	2022	2023	2024
Employee diversity	Hiring of social minorities	No. of employees with disabilities	Persons	3	3	3
		Ratio of employees with disabilities	%	2.0	2.0	2.1
		No. of senior employees (55 years of age or more, excluding executives)	Persons	30	28	28
		Ratio of senior employees	%	21.0	19.0	20.8
		No. of foreign employees	Persons	0	0	0
		Ratio of foreign employees	%	0.0	0.0	0.0
		No. of employees with high school degree	Persons	62	60	64
		Ratio of employees with high school degree	%	44.0	41.4	44.4
		No. of veterans	Persons	0	0	0
		Ratio of veterans	%	0.0	0.0	0.0
	Employees composition	No. of employees (Under 30 years of age)	Persons	19	13	6
		Percentage (Under 30 years of age)	%	13.0	9.0	4.2
		No. of employees (30~50 years of age)	Persons	75	83	87
		Percentage (30~50 years of age)	%	53.0	57.0	60.0
		No. of employees (50 or more years of age)	Persons	47	49	52
		Percentage (50 or more years of age)	%	33.0	34.0	36.0
	New hires	Male		15	19	11
Female			0	1	1	
By age		Under 30 years	Persons	3	5	3
		30~50 years		8	10	3
		Above 50 years		4	5	6
Employee compensation	Base salary and remuneration by gender	Average salary of male employees	KRW million	70.0	67.1	64.7
		Average salary of female employees		56.0	50.2	48.0
		Ratio of base salaries of female to male employees	%	79.0	74.8	78.7
		Average salary of male executives	KRW million	363.0	291.0	242.0
		Average salary of female executives		0.0	0.0	0.0
		Ratio of base salaries of female to male executives	%	0.0	0.0	0.0
		Average salary of male full-time employees	KRW million	71.0	69.3	64.5
		Average salary of female full-time employees		56.0	50.2	48.0
		Ratio of base salaries of female to male full-time employees	%	79.0	72.4	74.4
		Average salary of male non-regular employees	KRW million	52.0	48.4	45.4
		Average salary of female non-regular employees		0.0	0.0	0.0
		Ratio of base salaries of female to male non-regular employees	%	0.0	0.0	0.0
		Job security	Average years of service	Years	9	9.5
Total employee turnover	Persons		13	15	8	
Voluntary turnover	%		7.0	6.9	4.2	
Non-voluntary turnover			2.0	3.4	1.4	

Classification			Unit	2022	2023	2024
Talent development	Beneficiaries of training		Persons	141	145	145
	Total training expenses		KRW million	90	200	144
	Training costs per employee		KRW 1,000	638	1,380	999
	Total training hours		Hours	9,306	9,570	9,504
	Average training hours per employee			66	66	66
Industrial accidents	No. of industrial accidents		Cases	0	3	2
	Industrial accident rate		%	0.0	1.5	1.4
	No. of deaths		Persons	0	0	0
	No. of injuries			0	3	0
	Employee lost time injury frequency rate (LTIFR) ¹⁾		%	0.0	8.7	6.4
Shared growth	Lost work hours		Hours	0	2,016	3,120
	Supplier status	Total no. of partner companies	numbers	181	183	183
		Total value of purchases from partner companies		80,267	-	109,718
	Support for small- and medium-sized enterprises (SMEs)	Total value of purchases from SMEs	KRW million	-	-	0
Fair trade	No. of fair-trade law violations		Cases	0	0	0
	Fines		KRW million	0	0	0
No. of information-security breaches	Customer data leakage, theft, and loss		Cases	0	0	0
Workplace discrimination	No. of complaints filed related to workplace discrimination		Cases	0	0	0
	Parental leave	Employees who have taken parental leave	Total	3	2	1
Male			1	0	0	
Female			2	2	1	
No. of employees who have returned to work after parental leave		Total	2	2	0	
		Male	1	0	0	
		Female	1	2	0	
Parental leave	Percentage of employees who returned after parental leave		%	67.0	100.0	0.0
	Employees who continued to work after parental leave	Total	2	0	1	
		Male	1	0	1	
		Female	1	0	0	
Percentage of employees who continued to work after parental leave		%	67.0	0.0	100.0	
Human rights policy and procedure	Duration of training on workplace bullying prevention		Total hours (per employee)	0	0	0
	Duration of education for sexual harassment prevention			286(2)	145(1)	145(1)
	Other training (e.g., disability rights education)			286(2)	145(1)	145(1)
CSR	Investment in CSR (including donations)	Total amount	KRW million	56	55	65
		Cash donation		23	25	65
		Non-cash donation		33	0	0
		Business expense		0	30	0
	Total volunteer hours		Hours	1,716	1,740	1,080
	Average volunteer hours per employee			12	12	12
	Direct and indirect beneficiaries of the support programs		Persons	-	161	4,000

1) The proportion of accidents that occurred per one million working hours.

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Environmental

Classification		Unit	2022	2023	2024
Consumption of energy	Total energy consumed		6.8	6.5	6.7
	Scope 1 energy consumption	TJ	1.8	1.6	2.0
	Scope 2 energy consumption		5.0	4.9	4.8
	Energy intensity	GJ/KRW billion	-	28.2	27.3
GHG emissions	Emissions	Direct emissions (Scope 1)	162.0	127.6	122.2
		Indirect emissions (Scope 2)	239.0	234.8	227.4
		tCO ₂ eq			
GHG Inventory	LNG (Stationary)	Nm3	10,304	9,691	12,353
	Gasoline (Mobile)		30,372	26,467	29,431
	Diesel (Mobile)	L	9,201	7,140	8,993
	LPG (Mobile)		2.2	2.2	2.2
	Electricity	kwh	519,407	511,111	494,950
	Scope 1 (Stationary + mobile + others) - gHG emissions		161.8	127.6	122.2
	Scope 2 (Electricity + steam + electric vehicles) -GHG emissions	tCO ₂ eq	238.6	234.8	227.4
Waste	Total amount of waste (Waste treatment volume, based on domestic data)	Amount of waste generated	1,490	1,180	1,237
		Business waste	1,490	1,180	1,237
		Designated waste	0	0	0
	Amount of waste recycled	Household waste	0	0	0
		Recycled amount	1,489	1,180	1,237
		Industrial waste	1,490	1,180	1,237
	Waste management	Designated waste	-	-	0
		Domestic waste	-	-	0
		Ratio of waste recycle	100.0	100.0	100.0
	Waste management	Industrial waste generation	1,490	1,180	1,237
		Total waste generation	1,490	1,180	1,237
Hazardous (chemical) substances emission	Amount of hazardous substance emitted	Tons	0	0	0
	No. of emissions	Cases	0	0	0
	Emissions amount	Tons	0	0	0
Violation of environmental laws and regulations	Fines	KRW million	0	0	0
Environmental expenses and investments	Investment in environmental protection	Environmental investment costs	3.7	0.0	0.0
		Environmental management costs	-	8.0	0.0
		KRW million			
Green product sales	Sales of green products and services		296	2,058	1,646
	Total sales	KRW million	314,246	311,689	245,549
	Ratio of green sales	%	9.0	66.0	67.0
	Eco-certified products		2	2	2
Environmental Management System (EMS)	Total number of business sites		2	2	2
	Number of EMS certified business sites	Cases	2	2	2
	Ratio of EMS certified Business sites	%	100.0	100.0	100.0

Social

Classification			Unit	2022	2023	2024	
Total number of employees	Total number of employees		Persons	95	90	85	
Employee Status (by Employment Type)	Executives	Total	Persons	5	5	5	
		Female		0	0	0	
		Male		5	5	5	
	Full-time employees	Total		88	84	80	
		Female		20	19	19	
		Male		68	65	61	
	Non-regular employees	Total		2	1	0	
		Female		1	1	0	
		Male		1	0	0	
	Outsourced workers			0	0	0	
Employee status (by work type)	Full-time	Persons	95	90	85		
	Part-time		0	0	0		
Employee status (by location)	Domestic	Persons	95	90	85		
	Overseas		0	0	0		
Employee diversity	No. of male employees		Persons	74	65	66	
	Ratio of male employees		%	78.0	78.0	77.6	
	No. of female employees		Persons	21	19	19	
	Ratio of female employees		%	22.0	22.0	22.4	
	No. of male executives		Persons	5	5	2	
	Ratio of male executives		%	100.0	100.0	100.0	
	No. of female executives		Persons	0	0	0	
	Ratio of female executives		%	0.0	0.0	0.0	
	No. of male managers (manager level or higher)		Persons	28	26	24	
	Ratio of male managers (manager level or higher)		%	93.0	93.0	96.0	
	No. of female managers (manager level or higher)		Persons	2	2	1	
	Ratio of female managers (manager level or higher)		%	7.0	7.0	4.0	
	Hiring of social minorities	No. of employees with disabilities	Persons	1	1	0	
			%	1.0	1.1	0.0	
		No. of senior employees (55 years of age or more, excluding executives)	Persons	8	7	8	
			%	8.0	7.6	9.4	
		No. of foreign employees	Persons	0	0	0	
			%	0.0	0.0	0.0	
		No. of employees with high school degree	Persons	31	26	18	
			%	35.0	28.3	21.2	
		No. of veterans	Persons	0	0	0	
			%	0.0	0.0	0.0	
	Employees composition	No. of employees (Under 30 years of age)		Persons	17	15	9
		Percentage (Under 30 years of age)		%	18.0	16.3	10.6
		No. of employees (30~50 years of age)		Persons	60	58	44
		Percentage (30~50 years of age)		%	63.0	63.0	53.7
		No. of employees (50 or more years of age)		Persons	18	19	15
		Percentage (50 or more years of age)		%	19.0	20.7	17.7

Classification				Unit	2022	2023	2024	
New hires	Male		Persons		12	11	8	
	Female				2	1	2	
	By age	Under30 years			7	1	0	
		30~50 years			7	9	10	
		Above 50 years			0	1	-	
Employee compensation	Base salary and remuneration by gender	Average salary of male employees	KRW million	73	63	53		
		Average salary of female employees		44	38	41		
		Ratio of base salaries of female to male employees	%	60.0	60.6	77.0		
		Average salary of male executives	KRW million	190	314	136		
		Average salary of female executives		0	0	0		
		Ratio of base salaries of female to male executives	%	100.0	0.0	0.0		
		Average salary of male full-time employees	KRW million	66	63	53		
		Average salary of female full-time employees		47	38	41		
		Ratio of base salaries of female to male full-time employees	%	71.0	60.6	77.0		
		Average salary of male non-regular employees	KRW million	0.0	0.0	0.0		
		Average salary of female non-regular employees		39.1	33.0	0.0		
		Ratio of base salaries of female to male non-regular employees	%	0.0	0.0	0.0		
		Job security	Average years of service		Years	6.0	7.6	9.2
			Total employee turnover		Persons	10	10	19
			Voluntary turnover		%	11.0	8.6	11.1
			Non-voluntary turnover			0.0	0.0	1.1
Beneficiaries of training			Persons	95	70	85		
Talent development	Total training expenses		KRW million	40.1	31.0	7.0		
	Training costs per employee		KRW 1,000	422	397	79		
	Total training hours			1,235	10	490		
	Average training hours per employee		Hours	13.0	6.8	5.4		
	Industrial accidents	No. of industrial accidents		Cases	0	1	0	
Industrial accident rate		%	0.0	1.1	0.0			
No. of deaths			0	0	0			
No. of injuries		Persons	0	1	0			
Employee lost time injury frequency rate (LTIFR) ¹⁾		%	0.0	0.0	0.0			
Shared Growth	Lost work hours		Hours	0.0	4.4	0.0		
	Supplier status	Total no. of partner companies	Numbers	-	0	0		
		Total value of purchases from partner companies		-	0	0		
	Support for small- and medium-sized enterprises (SMEs)	Total value of purchases from SMEs	KRW million	-	0	0		

Classification		Unit	2022	2023	2024
Fair trade	No. of fair-trade law violations	Cases	0	0	0
	Fines	KRW million	0	0	0
No. of information-security breaches	Customer data leakage, theft, and loss	Cases	0	0	0
Workplace discrimination	No. of complaints filed related to workplace discrimination	Cases	0	0	0
Parental leave	Employees who have taken parental leave	Total	2	1	2
		Male	0	0	1
		Female	2	1	1
	No. of employees who have returned to work after parental leave	Total	1	1	2
		Male	0	0	1
		Female	1	1	1
	Percentage of employees who returned after parental leave	%	33.0	100.0	100.0
	Employees who continued to work after parental leave	Total	1	1	1
		Male	0	0	0
		Female	1	1	1
Human rights policy and procedure	Percentage of employees who continued to work after parental leave	%	50.0	100.0	100.0
	Human rights training hours	Hours	348	360	340
	Number of employees who completed human rights training	Persons	89	90	85
	Ratio of employees who completed human rights training	%	100.0	100.0	100.0
	Duration of training on workplace bullying prevention	Hours	89	90	85
	Duration of education for sexual harassment prevention	Total hours (per employee)	89	90	85
	Other training (e.g., disability rights education)	Hours	89	90	85

1) The proportion of accidents that occurred per one million working hours.

I HANSOL PNS IT Service

Social

Classification			Unit	2022	2023	2024	
Total number of employees	Total number of employees		Persons	176	205	205	
Employee Status (by Employment Type)	Executives	Total	Persons	1	3	3	
		Female		0	0	0	
		Male		1	3	3	
	Full-time employees	Total		175	198	205	
		Female		47	54	60	
		Male		128	144	145	
	Non-regular employees	Total		0	4	5	
		Female		0	0		
		Male		0	4	4	
	Outsourced workers			0	0	6	
Employee status (by work type)	Full-time	Persons	176	205	205		
	Part-time	Persons	0	0	0		
Employee status (by location)	Domestic	Persons	173	202	202		
	Overseas	Persons	3	3	3		
Employee diversity	No. of male employees		Persons	129	151	60	
	Ratio of male employees		%	73.0	74.0	50.0	
	No. of female employees		Persons	47	54	60	
	Ratio of female employees		%	27.0	26.0	50.0	
	No. of male executives		Persons	1	3	3	
	Ratio of male executives		%	100.0	100.0	100.0	
	No. of female executives		Persons	0	0	0	
	Ratio of female executives		%	0.0	0.0	-	
	No. of male managers (manager level or higher)		Persons	41	107	37	
	Ratio of male managers (manager level or higher)		%	89.0	80.0	84.0	
	No. of female managers (manager level or higher)		Persons	5	26	7	
	Ratio of female managers (manager level or higher)		%	11.0	20.0	16.0	
	Hiring of social minorities	No. of employees with disabilities	Persons	0	3	4	
			%	0.0	1.5	2.0	
		No. of senior employees (55 years of age or more, excluding executives)	Persons	2	4	6	
			%	1.0	2.0	2.9	
		No. of foreign employees	Persons	0	0	0	
			%	0.0	0.0	0.0	
		No. of employees with high school degree	Persons	3	3	3	
			%	2.0	1.5	1.5	
		No. of veterans	Persons	0	0	0	
			%	0.0	0.0	0.0	
	Employees composition	No. of employees (Under 30 years of age)		Persons	30	23	25
		Percentage (Under 30 years of age)		%	17.0	11.2	12.2
		No. of employees (30~50 years of age)		Persons	124	154	149
		Percentage (30~50 years of age)		%	70.0	75.1	72.7
		No. of employees (50 or more years of age)		Persons	22	28	37
		Percentage (50 or more years of age)		%	13.0	13.7	18.1

Classification			Unit	2022	2023	2024		
New hires	Male			42	37	18		
	Female			17	9	11		
	By age	Under 30 years	Persons	12	5	9		
		30~50 years		43	33	19		
		Above 50 years		4	8	1		
Employee compensation	Base salary and remuneration by gender	Average salary of male employees	KRW million	62.0	5.6	74.1		
		Average salary of female employees		48.0	4.6	52.6		
		Ratio of base salaries of female to male employees	%	77.0	81.5	71.0		
		Average salary of male executives	KRW million	16.0	10.0	125.3		
		Average salary of female executives		0.0	0.0	0.0		
		Ratio of base salaries of female to male executives	%	100.0	0.0	0.0		
		Average salary of male full-time employees	KRW million	61.0	5.5	70.8		
		Average salary of female full-time employees		48.0	4.6	52.6		
		Ratio of base salaries of female to male full-time employees	%	79.0	83.2	74.3		
		Average salary of male non-regular employees	KRW million	0.0	2.0	25.5		
		Average salary of female non-regular employees		0	0	0		
		Ratio of base salaries of female to male non-regular employees	%	0.0	0.0	0.0		
		Job security	Average years of service		Years	6.0	5.5	6.1
			Total employee turnover		Persons	25	19	19
			Voluntary turnover		%	-	11.2	9.3
			Non-voluntary turnover			-	7.8	4.4
Talent development	Beneficiaries of training		Persons	171	205	202		
	Total training expenses		KRW million	170	124	170		
	Training costs per employee		KRW 1,000	994	607	829		
	Total training hours		Hours	7,592	13,600	13,600		
	Average training hours per employee			43.1	66.3	66.3		
Industrial accidents	No. of industrial accidents		Cases	0	0	0		
	Industrial accident rate		%	0.0	0.0	0.0		
	No. of deaths			0	0	0		
	No. of injuries		Persons	0	0	0		
	Employee lost time injury frequency rate (LTIFR) ¹⁾		%	0.0	0.0	0.0		
	Lost work hours		Hours	0	0	0		
Shared Growth	Supplier status	Total no. of partner companies	Numbers	97	109	107		
		Total value of purchases from partner companies		12,900	36,000	34,190		
	Support for small- and medium-sized enterprises (SMEs)	Total value of purchases from SMEs	KRW million	-	-	-		

Classification		Unit	2022	2023	2024
Fair trade	No. of fair-trade law violations	Cases	0	0	0
	Fines	KRW million	0	0	0
No. of information-security breaches	Customer data leakage, theft, and loss	Cases	0	0	0
Workplace discrimination	No. of complaints filed related to workplace discrimination	Cases	0	0	0
Parental leave	Employees who have taken parental leave	Total	3	4	2
		Male	1	2	2
		Female	2	2	6
	No. of employees who have returned to work after parental leave	Total	0	4	5
		Male	0	2	4
		Female	0	2	1
	Percentage of employees who returned after parental leave	%	0.0	100.0	100.0
	Employees who continued to work after parental leave	Total	0	1	0
		Male	0	0	0
		Female	0	1	0
	Percentage of employees who continued to work after parental leave	%	0.0	100.0	0.0
Human rights policy and procedure	Human rights training hours	Hours	507	780	606
	Number of employees who completed human rights training	Persons	169	203	202
	Ratio of employees who completed human rights training	%	96.0	99.0	100.0
	Duration of training on workplace bullying prevention	Total	169(1)	196	202
	Duration of education for sexual harassment prevention	hours (per employee)	169(1)	388	202
	Other training (e.g., disability rights education)		169(1)	196	202

1) The proportion of accidents that occurred per one million working hours.

I HANSOL TECHNICS

Environmental

Classification			Unit	2022	2023	2024
Raw Material Consumption	Amount of raw materials consumed ¹⁾		Tons	30	20,946	6,877
Consumption of Recycled Input Materials	Amount of recycled materials (reused raw materials) consumed		Tons	-	-	-
	Ratio of recycled materials (reused raw materials) consumed		%	-	-	-
Consumption of energy	Total energy consumed			225	187	129
	Scope 1 energy consumption		TJ	14	12	10
	Scope 2 energy consumption			211	175	119
	Energy intensity		GJ/KRW billion	0.17	0.14	0.11
Water Consumption (Usage, Domestic Standard)	Total water consumption			52,081	45,330	33,606
	Potable water consumption			29,855	23,459	7,535
	Sewage usage		Tons	-	-	-
	Groundwater consumption			22,226	21,871	26,071
	Water reuse	Amount of water reused		-	-	0.0
		Water reuse rate	%	-	-	0.0
GHG emissions	Emissions	Direct emissions (Scope 1)	tCO ₂ eq	709.2	614.0	512.0
		Indirect emissions (Scope 2)		10,100	8,382	5,707
Greenhouse Gas (GHG) Inventory	LNG(Stationary)		Nm3	324,189	281,266	234,174
	Electricity		kwh	21,984,113	18,244,984	12,422,034
	Scope 1 (Stationary + mobile + others) – gHG emissions		tCO ₂ eq	709	614	512.3
Emission of air pollutants	Emissions	SOx	kg	-	61.5	0.0
		NOx		230.0	1,416.2	1,370
		POP		-	-	0.0
		VOC		-	-	0.0
		HAP		-	-	0.0
		PM		240.0	220.0	340.0
		PFC		-	-	0.0
Air Pollutant Management	Air pollutant intensity		kg/Metricton	-	-	0.01
	Total emissions		Metrictons	-	-	328,310
Emission of water pollutants	Emissions	BOD	ppm	14.1	4.0	2.4
		TOC		-	10.0	4.3
		COD		20.8	-	0.0
		SS		6.9	3.0	0.5
		TN		6.2	11.0	15.9
Waste	Total amount of waste (Waste treatment volume, based on domestic data)	Amount of waste generated	Tons	1,154	891.0	399.0
		Business waste		917.0	836.0	346.0
		Designated waste		31.0	19.0	20.0
		Household waste		31.0	36.0	33.0
	Amount of waste recycled	Recycled amount	Tons	979.0	840.0	392.0
		Industrial waste		917.0	786.0	339.0
		Designated waste		31.0	19.0	20.0
		Household waste		31.0	36.0	33.0
		Ratio of waste recycle		%	84.9	94.4

Classification		Unit	2022	2023	2024
Waste	Waste management	Industrial waste generation	917.0	836.0	346.0
		Household waste generation	31.0	36.0	33.0
		Total waste generation	948.0	872.0	399.0
Hazardous (chemical) substances emission	Amount of hazardous substance emitted	Tons	0.0	0.0	0.0
	No. of emissions	Cases	0	0	0
	Emissions amount	Tons	0.0	0.0	0.0
Violation of environmental laws and regulations	Fines	KRW million	0.0	0.0	0.0
Environmental expenses and investments	Investment in environmental protection	Environmental investment costs	65.0	27.0	34.0
		Environmental management costs	299.0	259.0	197.0
Green product sales	Sales of green products and services	KRW million	230,438	152,705	52,131
	Total sales		1,360,770	1,302,679	1,199,483
	Ratio of green sales	%	16.9	11.7	4.3
Environmental Management System (EMS)	Total number of business sites	numbers	2	2	2
	Number of EMS certified business sites		2	2	2
	Ratio of EMS certified business sites	%	100.0	100.0	100.0

1) The calculation method for raw material consumption has changed, starting from the previous report.

Social

Classification		Unit	2022	2023	2024
Total number of employees	Total number of employees	Persons	646	620	572
Employee Status (by Employment Type)	Executives	Total	11	17	17
		Female	0	0	0
		Male	11	17	17
	Full-time employees	Total	600	569	510
		Female	120	86	78
		Male	480	483	432
	Non-regular employees	Total	35	34	45
		Female	12	18	23
		Male	23	16	22
	Outsourced workers		0	0	0
Employee status (by work type)	Full-time	Persons	635	603	601
	Part-time		0	0	0
Employee status (by location)	Domestic	Persons	608	591	552
	Overseas		27	29	20
Employee diversity	No. of male employees	Persons	503	516	471
	Ratio of male employees	%	79.0	83.2	82.3
	No. of female employees	Persons	132	104	101
	Ratio of female employees	%	20.0	16.8	17.7
	No. of male executives	Persons	11	17	17
	Ratio of male executives	%	100.0	100.0	100.0
	No. of female executives	Persons	0	0	0
	Ratio of female executives	%	0.0	0.0	0.0
	No. of male managers (manager level or higher)	Persons	227	234	244
	Ratio of male managers (manager level or higher)	%	97.4	97.9	52.0

Classification		Unit	2022	2023	2024
Employee diversity	No. of female managers (manager level or higher)	Persons	6	5	9
	Ratio of female managers (manager level or higher)	%	2.6	2.1	1.6
	No. of employees with disabilities	Persons	5	3	2
	Ratio of employees with disabilities	%	0.8	0.5	0.0
	No. of senior employees (55 years of age or more, excluding executives)	Persons	33	31	26
	Ratio of senior employees	%	5.0	5.0	5.0
	No. of foreign employees	Persons	0	0	0
	Ratio of foreign employees	%	0.0	0.0	0.0
	No. of employees with high school degree	Persons	172	129	90
	Ratio of employees with high school degree	%	27.0	20.8	16.0
	No. of veterans	Persons	2	0	0
	Ratio of veterans	%	0.3	0.0	0.0
	No. of employees (Under 30 years of age)	Persons	71	73	82
	Percentage (Under 30 years of age)	%	11.0	11.7	14.3
	No. of employees (30~50 years of age)	Persons	482	453	396
	Percentage (30~50 years of age)	%	74.6	73.1	69.2
	No. of employees (50 or more years of age)	Persons	93	94	94
	Percentage (50 or more years of age)	%	14.4	15.2	16.4
	Male		85	72	64
	Female		15	23	26
	By age	Persons	45	34	40
	Under 30 years		50	57	42
	30~50 years		5	4	8
	Above 50 years				
Employee compensation	Average salary of male employees	KRW million	56.0	67.0	58.7
	Average salary of female employees	KRW million	45.0	57.7	40.9
	Ratio of base salaries of female to male employees	%	80.0	86.0	70.0
	Average salary of male executives	KRW million	316.0	237.5	210.2
	Average salary of female executives	KRW million	0.0	0.0	0.0
	Ratio of base salaries of female to male executives	%	0.0	0.0	0.0
	Average salary of male full-time employees	KRW million	57.0	64.0	56.4
	Average salary of female full-time employees	KRW million	47.0	63.0	43.1
	Ratio of base salaries of female to male full-time employees	%	82.0	98.4	76.0
	Average salary of male non-regular employees	KRW million	41.0	94.7	56.0
	Average salary of female non-regular employees	KRW million	29.0	19.1	27.0
	Ratio of base salaries of female to male non-regular employees	%	70.0	20.2	48.2
	Average years of service	Years	-	9.0	9.8
	Total employee turnover	Persons	-	124	136
	Voluntary turnover	%	-	10.8	11.4
	Non-voluntary turnover	%	-	9.2	12.4
	Beneficiaries of training	Persons	615	625	571
	Total training expenses	KRW million	294	388	359
Talent development	Training costs per employee	KRW 1,000	478	620	629
	Total training hours	Hours	28,126	48,125	25,935
	Average training hours per employee	Hours	46	77	45
	Ratio of training expenses to total labor expenses	%	0.6	0.8	0.8

Classification		Unit	2022	2023	2024
Industrial accidents	No. of industrial accidents	Cases	0	0	0
	Industrial accident rate	%	0.0	0.0	0.0
	No. of deaths	Persons	0	0	0
	No. of injuries	Persons	0	0	0
	Employee lost time injury frequency rate (LTIFR) ¹⁾	%	0.0	0.0	0.0
	Lost work hours	Hours	0	0	0
Shared Growth	Supplier status	Total no. of partner companies	646	326	205
		Total value of purchases from partner companies	661,770	611,393	90,331
	Support for small- and medium-sized enterprises (SMEs)	Total value of purchases from SMEs	81,299	79,817	66,836
		KRW million			
Fair trade	No. of fair-trade law violations	Cases	0	0	0
	Fines	KRW million	0	0	0
No. of information-security breaches	Customer data leakage, theft, and loss	Cases	0	0	0
Workplace discrimination	No. of complaints filed related To workplace discrimination	Cases	0	0	0
	Employees who have taken parental leave	Total	13	7	9
		Male	5	4	5
		Female	8	3	4
	No. of employees who have returned to work after parental leave	Total	6	4	6
		Male	5	1	2
		Female	1	3	4
	Percentage of employees who returned after parental leave	%	46.2	66.7	67.7
	Employees who continued to work after parental leave	Total	5	4	3
		Male	4	2	1
Parental leave		Female	1	2	2
	Percentage of employees who continued to work after parental leave	%	100.0	66.7	75.0
	Human rights training hours (per employee)	Hours	-	532	415
	Number of employees who completed human rights training	Persons	-	530	427
	Ratio of employees who completed human rights training	%	-	86	75
	Duration of training on workplace bullying prevention		681(1)	750(1.2)	692
	Duration of education for sexual harassment prevention	Total hours (per employee)	710(1)	750(1.2)	628
	Other training (e.g., disability rights education)		670(1)	750(1.2)	602
	Investment in CSR (including donations)	Total amount	-	130.0	29.2
		Cash donation	2	121	21.3
CSR	Investment in CSR (including donations)	Non-cash donation	38	0	2
		Business expense	-	9	6
	Total volunteer hours		-	120	201
	Average volunteer hours per employee	Hours	-	0.5	0.4
	Direct and indirect beneficiaries of the support programs	Persons	36	600	400

1) The proportion of accidents that occurred per one million working hours.

I HANSOL IONES

Environmental

Classification			Unit	2022	2023	2024
Raw Material Consumption	Amount of raw materials consumed		Tons	1,640	994.0	3,192
Consumption of Recycled Input Materials	Amount of recycled materials (reused raw materials) consumed		Tons	166.0	0.0	0.0
	Ratio of recycled materials (reused raw materials) consumed		%	10.0	0.0	0.0
Consumption of energy	Total energy consumed			246.0	235.0	302.0
	Scope 1 energy consumption		TJ	21.6	21.0	28.1
	Scope 2 energy consumption			224.5	214.0	274.4
	Energy intensity		GJ/KRW billion	-	1,823.1	1,928.4
Water Consumption (Usage, Domestic Standard)	Total water consumption			123,103	96,622	119,125
	Potable water consumption			123,103	96,622	119,125
	Sewage usage		Tons	0.0	0.0	0.0
	Groundwater consumption			0.0	0.0	0.0
	Water reuse	Amount of water reused		0.0	0.0	0.0
		Water reuse rate	%	0.0	0.0	0.0
GHG emissions	Emissions	Direct emissions (Scope 1)	tCO ₂ eq	1,213	1,203	1,556
		Indirect emissions (Scope 2)	tCO ₂ eq	10,741	10,237	13,132
		GHG emission intensity	tCO ₂ eq/KRW billion	70.9	92.3	93.4
GHG Inventory	LNG(Stationary)		Nm3	214,594	157,072	382,730
	LPG(Stationary)		Tons	202.2	182.1	165.8
	Gasoline(Mobile)		L	-	17,912	3,656
	Diesel (Mobile)		L	-	82,815	83,804
	Diesel exhaust fluid (DEF)		Metrictons	-	-	3.2
	Electricity		kwh	23,402,038	22,001,362	28,584,160
	Scope 1 (Stationary + mobile + others) – gHG emissions		tCO ₂ eq	1,061	1,203	1,556
	Scope 2 (Electricity + steam + electric vehicles) – gHG emissions			10,751	10,238	13,132
Emission of air pollutants	Emissions	SOx		0.09	0.04	0.24
		NOx		7.0	7.0	14.7
		POP		-	0.0	0.0
		VOC	kg	-	0.0	0.0
		HAP		-	0.0	0.0
		PM		16.0	16.0	11.8
		PFC		-	0.0	0.0
Air Pollutant Management	Air pollutant intensity		kg/Metricton	-	-	13.9
	Total production volume		Metrictons	-	-	1,915
Emission of water pollutants	Emissions	BOD		0.8	10.1	3.5
		TOC		2.0	19.6	3.4
		COD	ppm	3.6	34.7	4.9
		SS		2.8	2.7	2.7
		TN		4.1	5.5	4.1
Waste	Total amount of waste (Waste treatment volume, based on domestic data)	Total waste emissions		561.0	3,017.0	866.5
		Industrial waste		421.0	279.0	395.5
		Designated waste	Tons	140.0	2,701.0	402.0
		Household waste		0.0	37.0	69.0

Classification		Unit	2022	2023	2024
Waste	Amount of waste recycled	Recycling volume	445.0	1,457.4	491.6
		Industrial waste	0.0	271.2	373.1
		Designated waste	116.0	1,149.3	49.5
		Household waste	-	36.9	69.0
	Ratio of waste recycled	%	79.0	48.3	56.7
Waste Management	Industrial waste generation	Metrictons	561.0	2,980.0	395.5
	Household waste generation		-	37.0	69.0
	Total waste generation		-	-	866.5
Hazardous (chemical) substances emission	Amount of hazardous Substance emitted	Tons	-	0.0	6.7
	No. of emissions	Cases	0	0	0
	Emissions amount	Tons	0.0	0.0	0.0
Violation of environmental laws and regulations	Fines	KRW million	0.0	0.0	0.0
Green product sales	Sales of green products and services	KRW million	0.0	0.0	0.0
	Total sales	KRW million	163,912	123,933	156,604
	Ratio of green sales	%	0.0	0.0	0.0
Climate Target Setting (SBTi Target)	Emission reduction achievement rate	%	-	-	30.0
Environmental Management System (EMS)	Total number of business sites	Numbers	3	3	4
	Number of EMS certified Business sites		2	2	3
	Ratio of EMS certified Business sites	%	66.0	66.0	75.0

Social

Classification			Unit	2022	2023	2024
Total number of employees		Total number of employees	Persons	588	601	688
Employee Status (by Employment Type)	Executives	Total	Persons	7	6	5
		Female		0	0	0
		Male		7	6	5
	Full-time employees	Total		567	558	646
		Female		87	88	98
		Male		480	470	548
	Non-regular employees	Total		14	37	37
		Female		2	9	5
		Male		12	28	32
	Outsourced workers			-	0	0
Employee status (by work type)	Full-time	Persons	588	601	688	
	Part-time	Persons	-	0	0	
Employee status (by location)	Domestic	Persons	588	601	687	
	Overseas	Persons	-	0	1	
Employee diversity	No. of male employees		Persons	499	504	585
	Ratio of male employees		%	85.0	84.0	85.0
	No. of female employees		Persons	87	97	103
	Ratio of female employees		%	15.0	16.0	15.0
	No. of male executives		Persons	10	6	5
	Ratio of male executives		%	100.0	100.0	100.0
	No. of female executives		Persons	0	0	0
	Ratio of female executives		%	0.0	0.0	0.0
	No. of male managers (manager level or higher)		Persons	27	55	52
	Ratio of male managers (manager level or higher)		%	31.0	88.7	91.2
	No. of female managers (manager level or higher)		Persons	0	7	5
	Ratio of female managers (manager level or higher)		%	0.0	11.3	8.8

Classification			Unit	2022	2023	2024
Employee diversity	Hiring of social minorities	No. of employees with disabilities	Persons	11	11	12
		Ratio of employees with disabilities	%	2.0	1.8	1.7
		No. of senior employees (55 years of age or more, excluding executives)	Persons	11	11	12
		Ratio of senior employees	%	2.0	1.8	1.7
		No. of foreign employees	Persons	11	9	14
		Ratio of foreign employees	%	2.0	1.5	2.0
		No. of employees with high school degree	Persons	233	259	303
		Ratio of employees with high school degree	%	40.0	43.1	44.0
		No. of veterans	Persons	0	2	3
		Ratio of veterans	%	0.0	0.3	0.4
	Employees composition	No. of employees (Under 30 years of age)	Persons	182	156	200
		Percentage (Under 30 years of age)	%	31.1	26.0	29.1
		No. of employees (30~50 years of age)	Persons	380	417	456
		Percentage (30~50 years of age)	%	64.9	69.4	66.3
		No. of employees (50 or more years of age)	Persons	24	28	32
		Percentage (50 or more years of age)	%	4.1	4.7	4.7
	New hires	Male		149	161	210
		Female		35	22	26
		By age	Persons	78	88	121
		Above 50 years		99	94	112
Employee compensation	Base salary and remuneration by gender	Average salary of male employees	KRW million	47.0	55.5	64.0
		Average salary of female employees		36.0	41.8	51.0
		Ratio of base salaries of female to male employees	%	76.0	75.0	79.8
		Average salary of male executives	KRW million	125.0	263.7	251.4
		Average salary of female executives		0.0	0.0	0.0
		Ratio of base salaries of female to male executives	%	0.0	0.0	0.0
		Average salary of male full-time employees	KRW million	47.0	55.5	65.2
		Average salary of female full-time employees		36.0	45.4	53.0
	Job security	Ratio of base salaries of female to male full-time employees	%	76.0	82.0	81.3
		Average salary of male non-regular employees	KRW million	10.0	10.9	13.6
		Average salary of female non-regular employees		8.0	5.7	13.6
		Ratio of base salaries of female to male non-regular employees	%	80.0	51.9	99.8
		Average years of service	Years	3.5	4.2	4.2
		Total employee turnover	Persons	157	170	138
		Voluntary turnover	%	25.0	28.1	19.9
		Non-voluntary turnover	%	2.0	0.2	0.2

Classification			Unit	2022	2023	2024
Talent development	Beneficiaries of training		Persons	-	362	378
	Total training expenses		KRW million	38	40	195
	Training costs per employee		KRW 1,000	66	68	284
	Total training hours			3,029	14,517	95
	Average training hours per employee		Hours	5.2	24.2	137.6
Industrial accidents	No. of industrial accidents		Cases	0	1	2
	Industrial accident rate		%	0.0	0.2	0.3
	No. of deaths			0	0	0
	No. of injuries		Persons	0	1	2
	Employee lost time injury frequency rate (LTIFR) ¹⁾		%	0.0	0.6	1.5
Lost work hours		Hours	0	880	0	
Shared Growth	Supplier status	Total no. of partner companies	Numbers	70	24	28
		Total value of purchases from partner companies		49,004	24,818	32,752
	Support for small- and medium- sized enterprises (SMEs)	Total value of purchases from SMEs	KRW million	41,869	22,854	32,428
Fair trade	No. of fair-trade law violations		Cases	0	0	0
	Fines		KRW million	0.0	0.0	0.0
No. of information-security breaches	Customer data leakage, theft, and loss		Cases	0	0	0
Workplace discrimination	No. of complaints filed related to workplace discrimination		Cases	0	0	0
Parental leave	Employees who have taken parental leave	Total		6	3	17
		Male	Persons	0	1	8
		Female		6	2	9
	No. of employees who have returned to work after parental leave	Total		3	3	9
		Male		0	1	5
		Female		3	2	4
	Percentage of employees who returned after parental leave		%	50.0	100.0	81.8
	Employees who continued to work after parental leave	Total		1	4	12
		Male	Persons	0	0	1
		Female		1	4	3
Percentage of employees who continued to work after parental leave		%	17.0	175.0	100.0	
Human rights policy and procedure	Human rights training hours (per employee)		Hours	-	0	0
	Number of employees who completed human rights training		Persons	-	0	0
	Ratio of employees who completed human rights training		%	-	0.0	0.0
	Duration of training on workplace bullying prevention			1	1	1
	Duration of education for sexual harassment prevention		Total hours (per employee)	1	1	1
	Other training (e.g., disability rights education)			1	1	1
CSR	Investment in CSR (including donations)	Total amount		15	5	15
		Cash donation	KRW million	15	5	15
		Non-cash donation		0	0	0
		Business expense		0	0	0

1) The proportion of accidents per one million working hours.

I HANSOL LOGISTICS

Environmental

Classification		Unit	2022	2023	2024
Hazardous (chemical) substances emission	Amount of hazardous substance emitted	Tons	0	0	0
	No. of emissions	Cases	0	0	0
	Emissions amount	Tons	0	0	0
Violation of environmental laws and regulations	Fines	KRW million	0	0	0

Social

Classification			Unit	2022	2023	2024	
Total number of employees	Total number of employees		Persons	323	273	265	
Employee Status (by Employment Type)	Executives	Total	Persons	4	5	5	
		Female		0	0	0	
		Male		4	5	5	
	Full-time employees	Total		292	237	235	
		Female		79	60	65	
		Male		213	177	170	
	Non-regular employees	Total		31	30	25	
		Female		20	16	17	
		Male		11	14	8	
	Outsourced workers			3	3	4	
Employee status (by work type)	Full-time	Persons	323	269	261		
	Part-time	Persons	0	4	4		
Employee status (by location)	Domestic	Persons	308	260	254		
	Overseas	Persons	15	13	11		
Employee diversity	No. of male employees		Persons	224	199	183	
	Ratio of male employees		%	69.0	72.9	69.0	
	No. of female employees		Persons	99	76	82	
	Ratio of female employees		%	31.0	27.8	31.0	
	No. of male executives		Persons	4	5	5	
	Ratio of male executives		%	100.0	100.0	100.0	
	No. of female executives		Persons	0	0	0	
	Ratio of female executives		%	0.0	0.0	0.0	
	No. of male managers (manager level or higher)		Persons	104	86	87	
	Ratio of male managers (manager level or higher)		%	87.0	85.1	85.3	
	No. of female managers (manager level or higher)		Persons	15	15	15	
	Ratio of female managers (manager level or higher)		%	13.0	14.9	14.7	
	Hiring of social minorities	No. of employees with disabilities	Persons	1	4	4	
			%	0.3	1.5	1.5	
		No. of senior employees (55 years of age or more, excluding executives)	Persons	11	7	6	
			%	3.7	2.6	2.3	
			No. of foreign employees	Persons	0	0	0
				%	0.0	0.0	0.0
			No. of employees with high school degree	Persons	40	35	32
				%	13.5	12.8	12.1
			No. of veterans	Persons	2	0	0
				%	0.7	0.0	0.0

Classification			Unit	2022	2023	2024
Employee diversity	Employees composition	No. of employees (Under 30 years of age)	Persons	67	55	44
		Percentage (Under 30 years of age)	%	23.0	20.1	16.6
		No. of employees (30~50 years of age)	Persons	195	186	195
		Percentage (30~50 years of age)	%	66.0	68.1	73.6
		No. of employees (50 or more years of age)	Persons	34	34	26
		Percentage (50 or more years of age)	%	11.0	12.5	9.8
New hires	Male			33	18	13
	Female			6	7	13
	By age	Under 30 years	Persons	14	13	17
		30~50 years		25	10	9
		Above 50 years		0	2	0
Employee compensation	Base salary and remuneration by gender	Average salary of male employees	KRW million	69.0	4.0	57.0
		Average salary of female employees		53.0	2.9	43.0
		Ratio of base salaries of female to male employees	%	77.0	72.8	75.4
		Average salary of male executives		1,153.0	12.8	177.0
		Average salary of female executives	KRW million	0.0	0.0	0.0
		Average salary of male full-time employees		63.0	3.9	54.0
		Average salary of female full-time employees		46.0	3.2	47.0
		Ratio of base salaries of female to male full-time employees	%	73.0	83.0	87.0
		Average salary of male non-regular employees	KRW million	22.0	2.3	29.0
		Average salary of female non-regular employees		31.0	2.0	26.0
		Ratio of base salaries of female to male non-regular employees	%	139.0	84.8	89.6
Job security	Average years of service		Years	7.0	9.0	8.2
	Total employee turnover		Persons	33	48	38
	Voluntary turnover		%	10.0	16.5	26.0
	Non-voluntary turnover			0.0	1.1	12.0
Talent development	Beneficiaries of training		Persons	296	273	265
	Total training expenses		KRW million	179	244	121
	Training costs per employee		KRW 1,000	604.0	892.9	456.6
	Total training hours		Hours	-	17,060	24,159
	Average training hours per employee			30.0	62.5	91.2
	Ratio of training expenses to total labor expenses		%	-	23.8	0.9
Industrial accidents	No. of industrial accidents		Cases	0	0	0
	Industrial accident rate		%	0.0	0.0	0.0
	No. of deaths		Persons	0	0	0
	No. of injuries			0	0	0
	Employee lost time injury frequency rate (LTIFR) ¹⁾		%	0.0	0.0	0.0
	Lost work hours		Hours	0	0	0

Classification		Unit	2022	2023	2024
Shared Growth	Total no. of partner companies	Numbers	798	700	724
	Supplier status				
	Total value of purchases from partner companies	KRW million	605,023	365,309	364,654
	Support for small- and medium-sized enterprises (SMEs)	Total value of purchases from SMEs	0	0	0
Fair trade	No. of fair-trade law violations	Cases	0	0	0
	Fines	KRW million	0	0	0
No. of information-security breaches	Customer data leakage, theft, and loss	Cases	0	0	0
Workplace discrimination	No. of complaints filed related to workplace discrimination	Cases	0	0	0
Parental leave	Employees who have taken parental leave	Total	41	3	9
		Male	4	0	0
		Female	37	3	9
	No. of employees who have returned to work after parental leave	Total	43	3	6
		Male	1	0	0
		Female	33	3	6
	Percentage of employees who returned after parental leave	%	80.0	100.0	66.6
	Employees who continued to work after parental leave	Total	27	18	6
		Male	1	1	0
		Female	26	17	6
	Percentage of employees who continued to work after parental leave	%	62.0	67.0	66.6
Human rights policy and procedure	Human rights training hours (per employee)	Hours	1,116	1,100	22
	Number of employees who completed human rights training	Persons	279	275	265
	Ratio of employees who completed human rights training	%	93	100	100
	Duration of training on workplace bullying prevention		0	550 (2)	12
	Duration of education for sexual harassment prevention	Total hours (per employee)	558 (2)	550 (2)	11
	Other training (e.g., disability rights education)		558 (2)	550 (2)	11
CSR	Investment in CSR (including donations)	Total amount	-	0	0
		Cash donation	-	0	0
		Non-cash donation	-	0	0
		Business expense	-	0	0
	Total volunteer hours		-	18	20
	Average volunteer hours per employee	Hours	-	2	2
	Direct and indirect beneficiaries of the support programs	Persons	-	0	0

1) The proportion of accidents per one million working hours.

I HANSOL HOMEDECO

Environmental

Classification		Unit	2022	2023	2024
Raw Material Consumption	Amount of raw materials consumed	Tons	160,316	164,961	170,524
Consumption of Recycled Input Materials	Amount of recycled materials (reused raw materials) consumed	Tons	87,323	96,828	92,336
	Ratio of recycled materials (reused raw materials) consumed	%	54.0	58.7	54.2
Consumption of energy	Total energy consumed		1,987	2,011	2,027
	Scope 1 energy consumption	TJ	965.0	965.0	1,026
	Scope 2 energy consumption		1,022	1,046	1,001
	Energy intensity	GJ/KRW billion	-	0.0	1147.9
Water Consumption (Usage, Domestic Standard)	Total water consumption		617,044	581,715	717,018
	Potable water consumption	Tons	409,892	373,035	436,282
	Groundwater consumption		207,152	208,680	280,736
	Water reuse	Amount of water reused	13,472	12,425	44,048
		Water reuse rate	2.2	2.1	6.1
GHG emissions	Direct emissions (scope 1)	tCO ₂ eq	9,316	9,911	15,744
	Indirect emissions (scope 2)		46,088	45,796	47,959
GHG Inventory	LNG(Stationary)	Nm3	-	-	284,063
	Diesel (Stationary)		-	-	3,220
	Gasoline (Mobile)	L	-	-	667.0
	Diesel (Mobile)		-	-	300,709
	Electricity	kwh	-	-	104,392,209
	Scope 2 (Electricity+Steam+Electric vehicles) – gHG emissions	tCO ₂ eq	-	-	47,959
Emission of air pollutants	Emissions	SOx	750.0	1.0	1.9
		NOx	72,750	68.4	75.3
		POP	-	0.0	0.0
		VOC	-	0.0	0.0
		HAP	2,641	0.0	0.0
		PM	33,320	16.8	10.5
		PFC	-	0.0	0.0
Emission of water pollutants	Total emissions	Metrictons	-	-	301,239
	Emissions	BOD	9.0	8.6	21.1
		TOC	-	14.6	40.7
		COD	28.0	43.2	148.0
		SS	2.0	2.6	6.2
		TN	-	23.2	61.7
Waste	Total amount of waste (Waste treatment volume, based on domestic data)		28,636	28,167	32,278
	Amount of waste generated	Business waste	28,075	28,109	32,231
		Designated waste	561.0	58.0	47.3
		Household waste	-	0.0	0.0
	Ratio of waste recycled	%	76.0	72.0	73.0

Classification		Unit	2022	2023	2024
Waste	Amount of waste recycled	Recycled amount	21,792	20,159	23,548
		Industrial waste	21,274	20,107	23,507
		Designated waste	518.0	52.0	41.5
		Domestic waste	-	0.0	0.0
	Ratio of waste recycle	%	76.0	72.0	73.0
Hazardous (chemical) substances emission	Industrial waste generation	Metrictons	-	-	32,231
	Amount of hazardous substance emitted	Tons	-	0.0	0.0
	No. of emissions	Cases	0	0	0
Violation of environmental laws and regulations	Emissions amount	Tons	0	0.0	0.0
	Fines	KRW million	5.0	0.0	0.0
Environmental expenses and investments	Investment in environmental protection	Environmental investment costs	1,866	250.0	80.0
		Environmental management costs	1,887	1,573	1,678
Green product sales	Sales of green products and services	KRW million	84,155	89,142	124,784
	Total sales		283,414	300,003	327,259
	Ratio of green sales	%	29.7	29.7	38.1
Environmental Management System (EMS)	Number of EMS certified business sites	Numbers	-	-	1
	Ratio of EMS certified business sites	%	-	-	100.0
	Number of environmental law violations	Cases	-	-	2

Social

Classification		Unit	2022	2023	2024
Total number of employees	Total number of employees ¹⁾	Persons	310	348	340
Employee Status (by Employment Type)	Executives	Total	7	8	7
		Female	0	0	0
		Male	7	8	7
	Full-time employees	Total	298	334	327
		Female	33	41	43
		Male	265	293	284
	Non-regular employees	Total	5	6	6
		Female	3	3	3
		Male	2	3	3
	Outsourced workers		202	186	187
Employee status (by work type)	Full-time	Persons	310	348	333
	Part-time		0	0	0
Employee status (by location)	Domestic	Persons	305	345	337
	Overseas		5	3	3

Classification			Unit	2022	2023	2024
Employee diversity	No. of male employees		Persons	274	304	294
	Ratio of male employees		%	88.0	87.0	87.0
	No. of female employees		Persons	36	44	46
	Ratio of female employees		%	12.0	13.0	13.0
	No. of male executives		Persons	7	8	7
	Ratio of male executives		%	100.0	100.0	100.0
	No. of female executives		Persons	0	0	0
	Ratio of female executives		%	0.0	0.0	-
	No. of male managers (manager level or higher)		Persons	46	47	44
	Ratio of male managers (manager level or higher)		%	15.0	98.0	93.6
	No. of female managers (manager level or higher)		Persons	1	1	3
	Ratio of female managers (manager level or higher)		%	0.3	2.1	6.4
	Hiring of social minorities	No. of employees with disabilities	Persons	6	7	7
		Ratio of employees with disabilities	%	2.0	2.0	2.1
		No. of senior employees (55 years of age or more, excluding executives)	Persons	13	18	24
		Ratio of senior employees	%	4.0	5.0	7.1
		No. of foreign employees	Persons	0	0	0
		Ratio of foreign employees	%	0.0	0.0	0.0
		No. of employees with high school degree	Persons	122	136	134
		Ratio of employees with high school degree	%	39.0	39.0	39.5
		No. of veterans	Persons	1	2	2
	Ratio of veterans	%	0.3	0.6	0.6	
	Employees composition	No. of employees (Under 30 years of age)	Persons	78	74	58
		Percentage (Under 30 years of age)	%	25.0	21.0	17.1
		No. of employees (30~50 years of age)	Persons	158	195	210
		Percentage (30~50 years of age)	%	51.0	56.0	62.0
		No. of employees (50 or more years of age)	Persons	54	69	71
		Percentage (50 or more years of age)	%	17.0	20.0	20.9
New hires	Male	Persons	31	68	26	
	Female		2	8	8	
	By age		Under 30 years	15	31	13
			30~50 years	17	32	19
			Above 50 years	1	13	2
Employee compensation	Base salary and remuneration by gender	Average salary of male employees	KRW million	47.0	58.5	66.4
		Average salary of female employees		35.0	40.6	46.7
		Ratio of base salaries of female to male employees	%	75.0	69.4	70.4
		Average salary of male executives	KRW million	194.0	255.0	214.8
		Average salary of female executives		0.0	0.0	0.0
		Ratio of base salaries of female to male executives	%	0.0	0.0	0.0
		Average salary of male full-time employees	KRW million	44.0	55.3	65.5
		Average salary of female full-time employees		38.0	41.1	45.4
		Ratio of base salaries of female to male full-time employees	%	86.0	74.4	69.4

Classification			Unit	2022	2023	2024
Employee compensation	Base salary and remuneration by gender	Average salary of male non-regular employees	KRW million	24.0	38.5	12.0
		Average salary of female non-regular employees		20.0	37.5	18.8
		Ratio of base salaries of female to male non-regular employees	%	83.3	97.4	156.7
Job security	Average years of service		Years	10.3	9.0	10.1
	Total employee turnover		Persons	42	31	36
	Voluntary turnover		%	14.0	8.0	9.7
	Non-voluntary turnover			0.0	1.0	0.9
Talent development	Training costs per employee		KRW 1,000	100	142	171
	Average training hours per employee		Hours	21.0	19.4	13.7
Industrial accidents	No. of industrial accidents		Cases	3	1	0
	Industrial accident rate		%	0.96	0.00	0.00
	No. of deaths		Persons	0	0	0
	No. of injuries			3	0	0
	Employee lost time injury frequency rate (LTIFR) ²⁾		%	0.0	3.1	0.0
Lost work hours		Hours	3,400.0	308.6	0.0	
Shared Growth	Supplier status	Total no. of partner companies	Numbers	6	7	6
		Total value of purchases from partner companies	KRW million	7,498	8,462	5,670
Fair trade	No. of fair-trade law violations		Numbers	0	0	0
	Fines		KRW million	0	0	0
No. of information-security breaches	Customer data leakage, theft, and loss		Cases	0	0	0
Workplace discrimination	No. of complaints filed related to workplace discrimination		Cases	0	0	0
Parental leave	Employees who have taken parental leave	Total	Persons	2	1	4
		Male		0	0	1
		Female		2	1	3
	No. of employees who have returned to work after parental leave	Total	Persons	1	1	1
		Male		1	0	0
		Female		0	1	1
	Percentage of employees who returned after parental leave		%	25.0	100.0	100.0
	Employees who continued to work after parental leave	Total	Persons	1	1	0
Male		1		1	0	
Female		0		0	0	
Percentage of employees who continued to work after parental leave		%	50.0	50.0	0.0	
Human rights policy and procedure	Human rights training hours		Hours	-	1	1
	Number of employees who completed human rights training		Persons	-	360	340
	Ratio of employees who completed human rights training		%	-	100.0	100.0
	Duration of training on workplace bullying prevention		Total hours (per employee)	304(1)	340(1)	340(1)
	Duration of education for sexual harassment prevention			304(1)	340(1)	340(1)
	Other training (e.g., disability rights education)			304(1)	340(1)	340(1)
CSR	Investment in CSR (including donations)	Total amount	KRW million	33	31	40
		Cash donation		33	31	40
		Non-cash donation		0	0	0
		Business expense		0	0	0

1) The calculation method for employees returning from parental leave has been changed, effective from the previous report.

2) The proportion of accidents per one million working hours.

I HANSOL INTICUBE

Environmental

Classification	Unit		2022	2023	2024
Consumption of energy	Total energy consumed	TJ	2.1	5.5	4.9
	Scope 1 energy consumption		-	-	0.0
	Scope 2 energy consumption		2.1	5.5	4.9
	Energy intensity	GJ/KRW billion	-	0.0	0.0
Water Consumption (Usage, Domestic Standard)	Total water consumption		326.0	409.0	399.0
	Potable water consumption	Tons	326.0	409.0	399.0
Greenhouse Gas (GHG) Inventory	Gasoline (Mobile)	L	-	-	6,259
	Diesel (Mobile)		-	-	1,221
	Scope 1 (Stationary + mobile + others) - greenhouse gas emissions	tCO ₂ eq	-	-	17.0
Waste	Total amount of waste (Waste treatment volume, based on domestic data)	Amount of waste generated	-	3.6	4.9
		Business waste	-	0.0	0.0
		Designated waste	-	0.0	0.0
		Household waste	-	3.6	4.9
	Amount of waste recycled	Recycled amount	-	1.4	1.5
		Industrial waste	-	0.0	0.0
		Designated waste	-	0.0	0.0
		Domestic waste	-	1.4	1.5
	Ratio of waste recycle	%	-	100.0	30.0
	Industrial waste generation		-	-	4.9
Total waste generation		-	-	4.9	
Hazardous (chemical) substances emission	Amount of hazardous substance emitted	Tons	-	0.0	0.0
	No. of emissions	Cases	-	0	0
	Emissions amount	Tons	-	0.0	0.0
Violation of environmental laws and regulations	Fines	KRW million	-	0.0	0.0
Environmental Management System (EMS)	Total number of business sites	Numbers	-	-	1

Social

Classification			Unit	2022	2023	2024	
Total number of employees	Total number of employees		Persons	253	214	208	
Employee Status (by Employment Type)	Executives	Total	Persons	6	3	2	
		Female		0	0	0	
		Male		6	3	2	
	Full-time employees	Total	Persons	247	207	199	
		Female		67	59	53	
		Male		180	148	146	
	Non-regular employees	Total	Persons	0	4	6	
		Female		0	1	2	
		Male		0	3	4	
	Outsourced workers			-	0	0	
Employee status (by work type)	Full-time	Persons	253	214	207		
	Part-time	Persons	0	0	0		
Employee status (by location)	Domestic	Persons	253	214	207		
	Overseas	Persons	0	0	0		
Employee diversity	No. of male employees		Persons	186	154	152	
	Ratio of male employees		%	74.0	72.0	73.4	
	No. of female employees		Persons	67	60	55	
	Ratio of female employees		%	26.0	28.0	26.6	
	No. of male executives		Persons	6	3	2	
	Ratio of male executives		%	100.0	100.0	100.0	
	No. of female executives		Persons	0	0	0	
	Ratio of female executives		%	0.0	0.0	0.0	
	No. of male managers (manager level or higher)		Persons	128	111	115	
	Ratio of male managers (manager level or higher)		%	85.0	85.0	85.0	
	No. of female managers (manager level or higher)		Persons	23	20	21	
	Ratio of female managers (manager level or higher)		%	15.0	15.0	15.0	
	Hiring of social minorities	No. of employees with disabilities	Persons	2	4	4	
			%	1.0	1.9	1.9	
		No. of senior employees (55 years of age or more, excluding executives)		Persons	4	2	4
		Ratio of senior employees		%	2.0	0.9	1.9
		No. of foreign employees		Persons	0	0	0
		Ratio of foreign employees		%	0.0	0.0	0.0
		No. of employees with high school degree		Persons	9	10	10
		Ratio of employees with high school degree		%	4.0	4.7	4.8
		No. of veterans		Persons	2	0	0
		Ratio of veterans		%	1.0	0.0	0.0
	Employees composition	No. of employees (Under 30 years of age)		Persons	53	44	33
		Percentage (Under 30 years of age)		%	21.0	20.6	15.9
		No. of employees (30~50 years of age)		Persons	166	134	132
		Percentage (30~50 years of age)		%	66.0	62.6	63.8
		No. of employees (50 or more years of age)		Persons	34	36	42
		Percentage (50 or more years of age)		%	13.0	16.8	20.3
New hires	Male		Persons	53	8	10	
				21	5	1	
	By age	Under 30 years	Persons	24	4	3	
		30~50 years		45	8	8	
		Above 50 years		5	1	0	

Classification			Unit	2022	2023	2024	
Employee compensation	Base salary and remuneration by gender	Average salary of male employees	KRW million	58.0	68.2	74.7	
		Average salary of female employees		42.0	50.9	58.6	
		Ratio of base salaries of female to male employees		%	74.0	74.6	78.4
		Average salary of male executives	KRW million	110.0	180.2	130.5	
		Average salary of female executives		0.0	0.0	0.0	
		Ratio of base salaries of female to male executives		%	0.0	0.0	0.0
		Average salary of male full-time employees	KRW million	56.0	66.3	74.5	
		Average salary of female full-time employees		42.0	51.5	59.7	
		Ratio of base salaries of female to male full-time employees		%	76.0	77.8	80.2
		Average salary of male non-regular employees	KRW million	0.0	52.7	53.5	
		Average salary of female non-regular employees		0.0	13.2	28.0	
		Ratio of base salaries of female to male non-regular employees		%	0.0	25.0	52.3
		Job security	Average years of service	Years	7.5	8.0	8.6
			Total employee turnover	Persons	41	45	45
Voluntary turnover	%		14.0	14.0	20.8		
Non-voluntary turnover			2.0	7.0	0.97		
Talent development	Beneficiaries of training	Persons	253	214	207		
	Total training expenses	KRW million	238	264	128		
	Training costs per employee	KRW 1,000	960	1,231	617		
	Total training hours		7,169	6,908	4,017		
	Average training hours per employee	Hours	29.0	32.3	19.4		
Industrial accidents	No. of industrial accidents	Cases	0	0	0		
	Industrial accident rate	%	0.0	0.0	0.0		
	No. of deaths	Persons	0	0	0		
	No. of injuries		0	0	0		
	Employee lost time injury frequency rate (LTIFR) ¹⁾		%	0.0	0.0	0.0	
Lost work hours	Hours	0	0	0			
Shared Growth	Supplier status	Total no. of partner companies	Numbers	209	162	192	
		Total value of purchases from partner companies	KRW million	30,434	18,747	23,811	
	Support for small- and medium-sized enterprises (SMEs)	Total value of purchases from SMEs	KRW million	20,159	13,740	18,196	
Fair trade	No. of fair-trade law violations	Cases	0	0	0		
	Fines	KRW million	0	0	0		
No. of information-security breaches	Customer data leakage, theft, and loss	Cases	0	0	0		

Classification			Unit	2022	2023	2024	
Workplace discrimination	No. of complaints filed related to workplace discrimination		Cases	0	0	0	
	Employees who have taken parental leave	Total	Persons	4	4	3	
		Male		2	2	2	
		Female		2	2	1	
	No. of employees who have returned to work after parental leave	Total		0	3	3	
		Male		0	2	2	
		Female		0	1	1	
	Parental leave	Percentage of employees who returned after parental leave		%	0.0	75.0	100.0
		Employees who continued to work after parental leave	Total	Persons	3	0	2
Male			1		0	1	
Female			2		0	1	
Percentage of employees who continued to work after parental leave		%	75.0	0.0	100.0		
Human rights policy and procedure	Human rights training hours (per employee)		Hours	771	726	624	
	Number of employees who completed human rights training		Persons	257	242	208	
	Ratio of employees who completed human rights training		%	100.0	100.0	100.0	
	Duration of training on workplace bullying prevention		Total hours (per employee)	257(1)	242(1)	208(1)	
	Duration of education for sexual harassment prevention			257(1)	242(1)	208(1)	
	Other training (e.g., disability rights education)			257(1)	242(1)	208(1)	

1) The proportion of accidents per one million working hours.

I HANSOL CHEMICAL

Environmental

Classification		Unit	2022	2023	2024
Raw Material Consumption	Amount of raw materials consumed	Tons	147,161	131,233	146,481
Consumption of Recycled Input Materials	Amount of recycled materials (reused raw materials) consumed	Tons	0.0	0.0	0.0
	Ratio of recycled materials (reused raw materials) consumed	%	0.0	0.0	0.0
Consumption of energy	Total energy consumed		3,399	2,879	2,814
	Scope 1 energy consumption	TJ	559.0	271.0	396.0
	Scope 2 energy consumption		2,840	2,608	2,418
	Energy intensity	GJ/KRW billion	3,839	3,731	3,624
Water Consumption (Usage, Domestic Standard)	Total water consumption		2,559,254	2,351,378	2,098,053
	Potable water consumption	Tons	2,559,254	2,351,378	2,098,053
	Wastewater discharge		0.0	0.0	0.0
	Groundwater consumption		0.0	0.0	0.0
	Water reuse				
	Amount of water reused	Tons	0.0	0.0	0.0
	Water reuse rate	%	0.0	0.0	0.0
GHG emissions	Direct emissions (Scope 1)	tCO ₂ eq	87,066	56,833	66,409
	Indirect emissions (Scope 2)	tCO ₂ eq	82,266	73,248	76,296
Emission of air pollutants	Emissions				
	SOx		1,110	2,000	640
	NOx		19,499	13,000	15,090
	POP		-	0.0	0.0
	VOC	Kg	-	0.0	0.0
	HAP		-	0.0	0.0
	PM		674	1,117	1,060
	PFC		-	0.0	0.0
Air Pollutant Management	Total emissions	Metrictons	223,785	194,257	202,460
Emission of water pollutants	Emissions				
	BOD		14.0	25.0	15.8
	TOC		-	39.0	22.6
	COD	ppm	34.0	61.0	26.7
	SS		13.0	20.0	21.7
	TN		7.0	16.0	13.1
Waste	Total amount of waste (Waste treatment volume, based on domestic data)				
	Total waste emissions		10,202	9,389	8,723
	Industrial (General) waste emissions		4,817	3,893	3,642
	Industrial (General) waste				
	Incineration	Tons	966.0	518.0	512.0
	Landfill		98.0	73.0	33.0
	Recycling		3,537	3,290	3,098
	Storage		0.0	0.0	0.0
	Others		216.0	12.0	0.0
	Designated waste emissions		5,385	5,496	5,081
	Designated waste				
	Incineration		956.0	1,104.0	672.0
	Landfill		37.0	13.0	27.0
	Recycling		4,392	4,379	4,380
	Storage		0.0	0.0	0.0
	Others		0.0	0.0	1.4

Classification			Unit	2022	2023	2024
Waste	Household waste	Household waste emissions	Tons	0.0	0.0	0.0
		Incineration		0.0	0.0	0.0
		Landfill		0.0	0.0	0.0
		Recycling		0.0	0.0	0.0
		Storage		0.0	0.0	0.0
		Others		0.0	0.0	0.0
	Waste recycling volume	Recycling volume	Tons	7,929	7,669	7,478
	Waste recycling rate	Ratio of waste recycled	%	78.0	82.0	86.0
	Industrial waste generation	Metrictons	4,817	3,893	3,642	
	Total waste generation		10,202	9,389	8,723	
Hazardous (chemical) substances emission	Amount of hazardous substance emitted		Tons	-	0.0	0.0
	No. of emissions		Cases	0	0	0
	Emissions amount		Tons	0.0	0.0	0.0
Violation of environmental laws and regulations ¹⁾	Fines		KRW million	0.0	0.0	0.0
Environmental expenses and investments	Investment in environmental protection	Environmental investment costs	KRW million	4,232	1,678	2,178
		Environmental management costs		2,922	2,949	2,796
Green product sales	Sales of green products and services		KRW million	0.0	0.0	0.0
	Total sales			885,470	771,655	776,357
	Ratio of green sales		%	0.0	0.0	0.0
Environmental Management System (EMS)	Total number of business sites		Cases	4	4	4
	Number of EMS certified Business sites		Cases	3	3	3
	Ratio of EMS certified Business sites		%	100.0	100.0	100.0

1) No violations of environmental laws or regulations in 2024 (0 cases).

Social

Classification		Unit	2022	2023	2024
Total number of employees	Total number of employees	Persons	658	690	683
Employee Status (by Employment Type)	Executives				
	Total		16	11	10
	Female		1	1	1
	Male		15	10	9
	Total		548	621	629
	Full-time employees				
	Female	Persons	80	91	87
	Male		468	530	542
	Total		94	58	44
	Non-regular employees				
Employee status (by work type)	Female		2	1	1
	Male		92	57	43
	Total		109	109	110
	Outsourced workers				
	Full-time	Persons	658	690	681
	Part-time		0	0	2
	Domestic		653	686	679
	Overseas	Persons	5	4	4
	No. of male employees	Persons	570	597	594
	Ratio of male employees	%	87.0	87.0	87.0
Employee diversity	No. of female employees	Persons	82	93	89
	Ratio of female employees	%	13.0	13.0	13.0
	No. of male executives	Persons	15	10	9
	Ratio of male executives	%	94.0	91.0	90.0
	No. of female executives	Persons	1	1	1
	Ratio of female executives	%	6.0	9.0	10.0

Classification		Unit	2022	2023	2024	
Employee diversity	No. of male managers (manager level or higher)	Persons	116	118	48	
	Ratio of male managers (manager level or higher)	%	18.0	87.0	94.0	
	No. of female managers (manager level or higher)	Persons	16	18	3	
	Ratio of female managers (manager level or higher)	%	12.0	13.0	6.0	
	Hiring of social minorities	No. of employees with disabilities	Persons	5	8	8
		Ratio of employees with disabilities	%	1.0	1.0	1.2
		No. of senior employees (55 years of age or more, excluding executives)	Persons	23	21	32
		Ratio of senior employees	%	4.0	3.0	4.7
		No. of foreign employees	Persons	0	0	0
		Ratio of foreign employees	%	0.0	0.0	0.0
		No. of employees with high school degree	Persons	153	156	162
		Ratio of employees with high school degree	%	23.0	23.0	23.7
		No. of veterans	Persons	4	1	4
	Ratio of veterans	%	1.0	0.1	0.6	
	Employees composition	No. of employees (Under 30 years of age)	Persons	220	226	196
		Percentage (Under 30 years of age)	%	34.0	33.0	28.7
		No. of employees (30~50 years of age)	Persons	360	383	406
		Percentage (30~50 years of age)	%	55.0	56.0	59.4
		No. of employees (50 or more years of age)	Persons	72	81	81
		Percentage (50 or more years of age)	%	11.0	12.0	11.9
New hires		Male		79	65	35
	Female		20	24	0	
	By age	Under 30 years	Persons	71	65	30
		30~50 years		27	23	4
Employee compensation	Above 50 years		1	1	1	
	Average salary of male employees	KRW million	101	98	97	
	Average salary of female employees		69	63	79	
	Ratio of base salaries of female to male employees	%	68.0	64.0	81.0	
	Average salary of male executives	KRW million	914	962	467	
	Average salary of female executives		2,940	2,803	955	
	Ratio of base salaries of female to male executives	%	322.0	291.4	204.5	
	Average salary of male full-time employees	KRW million	106	102	100	
	Average salary of female full-time employees		69	64	80	
	Ratio of base salaries of female to male full-time employees	%	65.0	63.0	80.0	
	Average salary of male non-regular employees	KRW million	62	57	71	
	Average salary of female non-regular employees		36	20	19	
	Ratio of base salaries of female to male non-regular employees	%	58.0	35.0	26.8	
	Average salary of male full-time employees	KRW million	106	102	100	
	Average salary of female full-time employees		69	64	80	
	Ratio of base salaries of female to male full-time employees	%	65.0	63.0	80.0	
	Average salary of male non-regular employees	KRW million	62	57	71	
	Average salary of female non-regular employees		36	20	19	
	Ratio of base salaries of female to male non-regular employees	%	58.0	35.0	26.8	

Classification			Unit	2022	2023	2024
Job security	Average years of service		Years	7.6	7.8	8.6
	Total employee turnover		Persons	67	58	41
	Voluntary turnover		%	9.0	6.7	5.3
	Non-voluntary turnover			1.0	1.7	0.7
Talent development	Beneficiaries of training		Persons	652	690	679
	Total training expenses		KRW million	706	1,015	828
	Training costs per employee		KRW 1,000	1,083	1,471	1,219
	Average training hours per employee		Hours	79	93	102
Industrial accidents	No. of industrial accidents		Cases	0	1	1
	Industrial accident rate		%	0.0	0.22	0.15
	No. of deaths		Persons	0	0	0
	No. of injuries			0	1	0
	Employee lost time injury frequency rate (LTIFR) ¹⁾		%	0.0	0.8	0.7
	Lost work hours		Hours	0.0	1,096	462.6
Shared Growth	Supplier status	Total no. of partner companies	Cases	206	221	239
		Total value of purchases from partner companies		262,609	229,859	235,959
	Support for small- and medium-sized enterprises (SMEs)	Total value of purchases from SMEs	KRW million	56,506	51,247	52,531
Fair trade	No. of fair-trade law violations		Cases	0	0	0
	Fines		KRW million	0	0	0
No. of information-security breaches	Customer data leakage, theft, and loss		Cases	0	0	0
Workplace discrimination	No. of complaints filed related to workplace discrimination		Cases	0	0	0
Parental leave	Employees who have taken parental leave	Total	Persons	5	4	4
		Male		3	1	1
	Female	2		3	3	
	No. of employees who have returned to work after parental leave	Total		4	4	3
		Male	3	1	1	
	Female	1	3	2		
	Percentage of employees who returned after parental leave		%	80.0	100	100
	Employees who continued to work after parental leave	Total	Persons	1	4	4
		Male		0	3	1
	Female	1	1	3		
Percentage of employees who continued to work after parental leave		%	100.0	100.0	100.0	
Human rights policy and procedure	Human rights training hours (per employee)		Hours	625	676	675
	Number of employees who completed human rights training		Persons	625	676	675
	Ratio of employees who completed human rights training		%	100.0	100.0	100.0
	Duration of training on workplace bullying prevention		Total hours (per employee)	625(1)	675(1)	675(1)
	Duration of education for sexual harassment prevention			625(1)	675(1)	675(1)
	Other training (e.g., disability rights education)			625(1)	675(1)	675(1)
CSR	Investment in CSR (including donations)	Total amount	KRW million	48	55	63
		Cash donation		47	53	63
		Non-cash donation		1	2	0
		Business expense		0	14	0
	Total volunteer hours		Hours	513	1,157	1,184
	Average volunteer hours per employee			0.8	1.7	1.7
Direct and indirect beneficiaries of support programs		Persons	5,488	11,398	12,000	

1) The proportion of accidents per one million working hours.

2) The total volunteer hours for 2023 and the average volunteer hours per employee in the previous report were incorrectly stated.

Environmental

Classification			Unit	2022	2023	2024	
Raw Material Consumption	Amount of raw materials consumed		Tons	12,757	11,969	12,520	
Consumption of Recycled Input Materials	Amount of recycled materials (reused raw materials) consumed		Tons	2,260	2,660	2,078	
	Ratio of recycled materials (reused raw materials) consumed		%	18	22	17	
Consumption of energy	Total energy consumed		TJ	273.0	295.0	332.0	
	Scope 1 energy consumption			75.0	84.0	86.0	
	Scope 2 energy consumption			198.0	211.0	246.0	
	Energy intensity		GJ/ KRW billion	1,516	2,055	2,471	
Water Consumption (Usage, Domestic Standard)	Total water consumption	Total water consumption	Tons	2,156,459	1,963,157	2,024,029	
	Yanggam plant	Potable water consumption ¹⁾		218,792	190,363	182,206	
		Groundwater consumption		0.0	0.0	0.0	
		Seawater usage		0.0	0.0	0.0	
		Palttan plant		Potable water consumption ¹⁾	921,301	768,272	806,118
		Groundwater consumption		0.0	0.0	0.0	
		Seawater usage		0.0	0.0	0.0	
		Unilap plant		Potable water consumption ¹⁾	1,016,366	1,004,522	1,034,767
	Groundwater consumption			0.0	0.0	0.0	
	Seawater usage			0.0	0.0	0.0	
	Gunsan plant	Potable water consumption ¹⁾		0.0	0.0	938	
		Groundwater consumption		0.0	0.0	0.0	
		Seawater usage		0.0	0.0	0.0	
	Water reuse	Amount of water reused			2,140,452	1,942,900	2,003,122
		Water reuse rate		%	99.3	99.0	99.0
	GHG emissions	Emissions		Direct emissions (Scope 1)	tCO ₂ eq	4,131	4,644
Indirect emissions (Scope 2)			9,452	10,080		11,771	
Total scope 1+2 gHG emissions			13,583	14,724		16,341	
GHG emission intensity			tCO ₂ eq/ KRW billion	76.0		103.0	121.8
GHG inventory		LNG(Stationary)	Nm3	899,939	879,760	1,290,290	
		LPG(Stationary)	ton	705.0	897.0	582.0	
		Gasoline (Mobile)	L	40,679	40,997	18,709	
		Diesel (Mobile)		2,785	1,549	1,544	
		Electricity	kwh	20,574,617	21,941,194	25,621,821	
		Scope 1 (Stationary + mobile + others) – gHG emissions	tCO ₂ eq	4,131	4,644	4,570	
Scope 2 (Electricity + steam + electric vehicles) – gHG emissions	9,452	10,080		11,771			
Emission of air pollutants	Emissions	SO _x ²⁾	kg	604	1,130	2,363	
		NO _x		11,665	5,436	14,782	
		POP		0.0	0.0	0.0	
		VOC		0.0	0.0	0.0	
		HAP		24,778	24,398	22,396	
		PM		13,864	10,384	10,491	
		PFC		0.0	0.0	0.0	
Air Pollutant Management	Total emissions		Metrictons	10,484	9,812	10,220	
Emission of water pollutants	Emissions	BOD	ppm	1.3	1.4	1.1	
		TOC		0.0	7.2	6.5	
		COD		12.6	6.4	6.2	
		SS		1.2	1.0	0.4	
		TN		0.0	0.0	0.0	

Classification			Unit	2022	2023	2024
Waste	Total waste discharge (Treatment volume, based on domestic standards)	Total waste emissions		1,317	1,208	1,344
	General industrial waste	Industrial (General) waste emissions	Tons	816.0	690.0	841.0
		Incineration		0.0	0.0	0.0
		Landfill		0.0	2.0	17.0
		Recycling		816.0	688.0	824.0
	Designated waste	Designated waste emissions	Tons	467.0	494.0	484.0
		Incineration		56.0	62.0	53.0
		Landfill		0.0	0.0	0.0
		Recycling		411.0	432.0	431.0
	Household waste	Household waste emissions	Tons	34.0	24.0	19.0
		Incineration		0.0	0.0	0.0
		Landfill		0.0	0.0	0.0
		Recycling		34.0	24.0	19.0
	Waste recycling rate	Recycling volume	Tons	1,261	1,144	1,274
		Ratio of waste recycled	%	96.0	95.0	95.0
Material hazardous (chemical) substances emission	Industrial waste generation	Metrictons	816.0	690.0	841.0	
	Household waste generation		34.0	24.0	19.0	
	Total waste generation		1,317	1,208	1,344	
Violation of environmental laws and regulations	Amount of hazardous substance emitted	Tons	30.0	29.0	28.0	
	No. of emissions	Cases	0	0	0	
	Emissions amount	Tons	0.0	0.0	0.0	
Environmental expenses and investments	Fines	KRW million	0.0	0.0	0.0	
	Investment in environmental protection	Environmental investment costs	KRW million	731.0	2,411	249.0
Environmental management costs		59.0		176.0	166.0	
Green product sales	Sales of green products and services	KRW million	154.0	0.0	0.0	
	Total sales		182,261	145,840	135,955	
	Ratio of green sales	%	0.1	0.0	0.0	
Environmental Management System (EMS)	Total number of business sites	Cases	-	-	6.0	
	Number of EMS certified business sites	Cases	-	-	5.0	
	Ratio of EMS certified business sites	%	-	-	83.3	

1) Tap water usage = tap water + reused water

2) The unit of measurement for usage in the electricity report was entered incorrectly.

3) Emissions of hazardous substances include HAP (Hazardous Air Pollutants) emissions.

4) No violations of environmental laws or regulations in 2024 (0 cases).

Social

Classification		Unit	2022	2023	2024
Total number of employees ¹⁾	Total number of employees	Persons	402	377	377
Employee Status (by Employment Type)	Executives	Total	7	7	7
		Female	1	1	1
		Male	6	6	6
	Full-time employees	Total	387	361	362
		Female	32	30	36
		Male	355	331	326
	Non-regular employees	Total	15	16	15
		Female	4	4	3
		Male	11	12	12
	Outsourced workers		30	33	33
Employee status (by work type)	Full-time	Persons	395	370	370
Employee status (by location)	Part-time	Persons	7	7	7
	Domestic	Persons	398	370	370
	Overseas	Persons	4	7	7

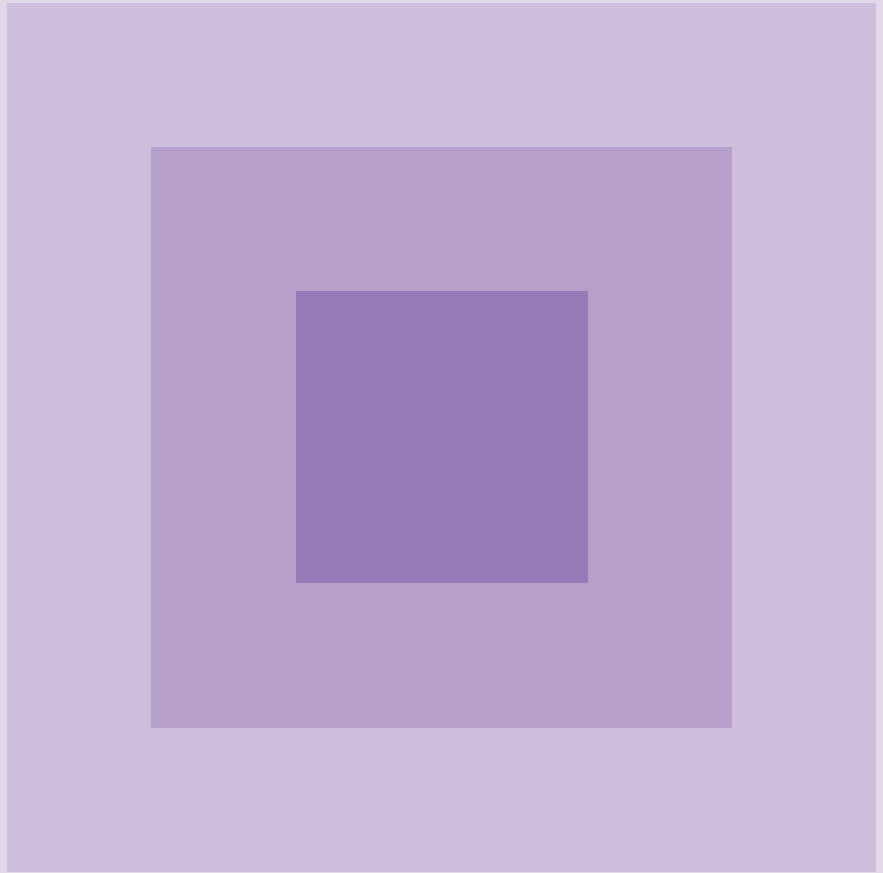
Classification			Unit	2022	2023	2024		
Employee diversity	No. of male employees		Persons	367	343	336		
	Ratio of male employees		%	91.3	91	89.1		
	No. of female employees		Persons	35	34	41		
	Ratio of female employees		%	8.7	9	10.9		
	No. of male executives		Persons	6	6	6		
	Ratio of male executives		%	85.7	85.7	85.7		
	No. of female executives		Persons	1	1	1		
	Ratio of female executives		%	14.3	14.3	14.3		
	No. of male managers (manager level or higher)		Persons	75	75	80		
	Ratio of male managers (manager level or higher)		%	87.2	89.3	88.9		
	No. of female managers (manager level or higher)		Persons	11	9	10		
	Ratio of female managers (manager level or higher)		%	12.8	10.7	11.1		
	Hiring of social minorities	No. of employees with disabilities		Persons	6	5	6	
		Ratio of employees with disabilities		%	1.6	1.0	1.6	
		No. of senior employees (55 years of age or more, excluding executives)		Persons	6	6	13	
		Ratio of senior employees		%	1.4	1.5	3.5	
		No. of foreign employees		Persons	3	3	4	
		Ratio of foreign employees		%	0.7	0.7	1.1	
		No. of employees with high school degree		Persons	165	143	131	
		Ratio of employees with high school degree		%	38.2	35.1	34.8	
		No. of veterans		Persons	2	0	0	
		Ratio of veterans		%	0.5	0.0	0.0	
	Employees composition	No. of employees (Under 30 years of age)		Persons	64	51	49	
		Percentage (Under 30 years of age)		%	14.8	12.5	13.0	
		No. of employees (30~50 years of age)		Persons	315	300	291	
		Percentage (30~50 years of age)		%	72.9	73.7	77.2	
		No. of employees (50 or more years of age)		Persons	53	56	70	
		Percentage (50 or more years of age)		%	12.3	13.8	18.6	
	New hires	Male			105	61	122	
		Female			7	6	9	
By age		Under 30 years	Persons	30	27	46		
		30~50 years		82	40	85		
	Above 50 years			0	0	0		
Employee compensation	Base salary and remuneration by gender	Average salary of male employees		KRW million	64	59	60	
		Average salary of female employees			48	47	50	
		Ratio of base salaries of female to male employees		%	75.0	80.0	83.0	
		Average salary of male executives		KRW million	273.4	124.2	114.1	
		Average salary of female executives			244.7	244.8	244.8	
		Ratio of base salaries of female to male executives		%	89.5	197.0	214.5	
		Average salary of male full-time employees		KRW million	65.1	58.6	59.2	
		Average salary of female full-time employees			59.6	51.9	46.9	
		Ratio of base salaries of female to male full-time employees		%	91.6	88.5	79.2	
		Average salary of male non-regular employees		KRW million	0.0	130.8	50.2	
		Average salary of female non-regular employees			2.4	13.2	27.4	
		Ratio of base salaries of female to male non-regular employees		%	-	10.1	54.6	
		Job security	Average years of service		Years	5.2	5.9	3.2
			Total employee turnover		Persons	83	76	176
Voluntary turnover			%	26.2	19.0	46.7		
Non-voluntary turnover			%	1.3	1.3	0.3		

Classification			Unit	2022	2023	2024
Talent development	Beneficiaries of training		Persons	402	374	374
	Total training expenses		KRW million	225	201	162
	Training costs per employee		KRW 1,000	560	538	433
	Total training hours		Hours	3,818	3,726	4,393
	Average training hours per employee			9	10	12
Industrial accidents	Employee	No. of industrial accidents	Cases	1	0	0
		Industrial accident rate %		0.3	0.0	0.0
		No. of deaths	Persons	0	0	0
		No. of injuries		1	0	0
		Employee lost time injury frequency rate (LTIFR) ¹⁾		0.0	0.0	0.0
		Lost work hours		128	0	0
	Partner	No. of industrial accidents	Cases	0	0	0
		Industrial accident rate %		0.0	0.0	0.0
		No. of deaths	Persons	0	0	0
		No. of injuries	Persons	0	0	0
		Employee lost time injury frequency rate (LTIFR) ¹⁾	%	-	-	0.0
		Lost work hours	Hours	0	0	0
Shared Growth	Supplier status	Total no. of partner companies	Numbers	104	120	127
		Total value of purchases from partner companies		76,311	88,105	81,696
	Support for small- and medium-sized enterprises (SMEs)	Total value of purchases from SMEs	KRW million	57,265	49,650	44,383
Fair trade	No. of fair-trade law violations		Cases	0	0	0
	Fines		KRW million	0	0	0
No. of information-security breaches	Customer data leakage, theft, and loss		Cases	0	0	0
Workplace discrimination	No. of complaints filed related to workplace discrimination		Cases	0	0	0
Parental leave	Employees who have taken parental leave	Total	Persons	9	10	5
		Male		4	6	3
		Female		5	4	2
	No. of employees who have returned to work after parental leave	Total	Persons	5	9	4
		Male		2	5	4
		Female		3	4	0
	Percentage of employees who returned after parental leave		%	50.0	90.0	100.0
	Employees who continued to work after parental leave	Total	Persons	18	5	6
		Male		5	2	2
		Female		13	3	4
Percentage of employees who continued to work after parental leave		%	72.0	100.0	100.0	
Human rights policy and procedure	Human rights training hours (per employee)		Hours	1	1	1
	Number of employees who completed human rights training		Persons	399	371	374
	Ratio of employees who completed human rights training		%	92.4	91.2	97.6
	Duration of training on workplace bullying prevention		Total hours (per employee)	798 (2)	780 (2)	730(2)
	Duration of education for sexual harassment prevention			399 (1)	390 (1)	365(1)
	Other training (e.g., disability rights education)			798 (2)	780 (2)	730(2)
	CSR	Investment in CSR (including donations)	Total amount	KRW million	30	32
Cash donation			18		22	15
Non-cash donation			10		7	4
Business expense			2		3	2
Total volunteer hours		Hours	300	425	365	
Average volunteer hours per employee			0.7	1.14	0.98	
Direct and indirect beneficiaries of the support programs		Persons	179	180	117	

1) The proportion of accidents occurring per one million working hours.

7

APPENDIX



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143	Affiliates and Certifications
144	Awards
144	Local Business Sites
145	Association Memberships
146	Independent Assurance Statement

I INDEX

GRI Index

Hansol Group has prepared its ESG performance and data for the period from January 1, 2024 to December 31, 2024 in accordance with the GRI Standards and the relevant reporting principles.

UNIVERSAL STANDARD			
General Disclosures 2021			
GRI Standard	Disclosure	Disclosure Location	Notes
The organization and its reporting practices	2-1 Detailed information on organization	8,9	
	2-2 List of entities included in the sustainability report	2,12~17	
	2-3 Reporting period, frequency, and contact point for inquiries	2	
	2-4 Restatement of information	3, 115, 131	
	2-5 Third-party assurance	-	
	2-6 Activities, value chain, and other business relations	8~17	
Activities and workers	2-7 Employees	114, 117, 119, 121, 122, 125, 127, 128, 131, 132, 135, 137	
	2-8 Non-employee workers	114, 117, 119, 121, 122, 125, 127, 128, 131, 132, 135, 137	
Governance	2-9 Governance structure and composition	100~102	
	2-10 Nomination and selection of the highest governance body	100~102	
	2-11 Chairman of the highest governance body	100, Business Report p.372	
	2-12 Role of the highest governance body in overseeing the management of impacts	100, Business Report p.373, 374	
	2-13 How delegation of responsibility for managing impacts	Excluded	Insufficient data
	2-14 Role of the highest governance body in sustainability reporting	100	
	2-15 Conflicts of interest	100	
	2-16 Communication of critical concerns	Business Report p. 373, 374	
	2-17 Collective knowledge of the highest governance body	102	
	2-18 Evaluation of the performance of the highest governance body	Excluded	Insufficient data
	2-19 Remuneration policies	Excluded	Confidential
	2-20 Process to determine remuneration	Excluded	Insufficient data
	2-21 Annual total compensation ratio	Excluded	Confidential
Strategy, policy, and practice	2-22 Statement on sustainable development strategy	7, 25, 27, 65	
	2-23 Policy commitments	24~29, 38~40, 64, 68	
	2-24 Embedding policy commitments		
	2-25 Processes to remediate negative	24, 107~111	
	2-26 Mechanisms for seeking advice and raising concerns	65, 75, 78	
	2-27 Compliance with laws and regulations	115, 117, 119, 121, 122, 125, 127, 128, 131, 133, 135, 137, Business Report p. 410~414	
	2-28 Membership associations	145	
	2-29 Approach to stakeholder engagement	30	
Stakeholder engagement	2-30 Collective bargaining agreements	Excluded	Insufficient data
Material Topics 2021			
GRI Standard	Disclosure	Disclosure Location	
Material topics	3-1 Process to determine material topics	31~33	
	3-2 List of material topics	31	
	3-3 Management of material topics	31~33, 38~40, 44~45, 46~47, 48~49, 51~52, 65~68, 69~74, 85~86, 87~90, 99, 105~106	

TOPIC STANDARD		
Economy (GRI 200)		
GRI Standard	Disclosure	Disclosure Location
Economic performance	201-1 Direct economic value generated and distributed	8~9, 114
	201-2 Financial implications and other risks and opportunities due to climate change(physical, regulatory, other: new technologies, products	46~47
Indirect economic impact	203-1 Infrastructure investments and services supported	80
Anti-corruption	205-1 Operations assessed for risks	116
	205-2 Communication and training about anti-corruption policies and procedures	115

Environment (GRI 300)

GRI Standard	Disclosure	Disclosure Location
Energy	301-2 Recycled input materials used	116, 118, 124, 126, 130, 134, 136
	302-1 Energy consumption within the organization	116, 118, 120, 124, 126, 130, 132, 134, 136
	302-3 Energy intensity	116, 120, 124, 126, 130, 132, 134, 136
	302-4 Reduction of energy consumption	48~49
Water and wastewater	303-1 Interactions with water as a shared resource	51~52
	303-4 Water discharge	116
	303-5 Water consumption	116, 118, 124, 126, 130, 132, 134, 136
Emissions	305-1 Direct (Scope 1) GHG emissions	116, 118, 120, 124, 126, 130, 132, 134, 136
	305-2 Energy indirect (Scope 2) GHG emissions	116, 118, 120, 124, 126, 130, 134, 136
	305-4 GHG emissions intensity	126, 136
	305-5 Reduction of GHG emissions	48,49
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emission	116, 118, 124, 126, 130, 132, 134, 136
Waste	306-1 Waste generation and significant waste-related impacts	52~53
	306-2 Management of significant waste related impacts	52~53
	306-3 Waste generated	52, 53, 116, 118, 120, 124, 126, 130, 132, 134, 136
	306-4 Waste diverted from disposal	52, 53, 116, 118, 120, 124, 126, 130, 132, 134, 136
	306-5 Waste directed to disposal	134

Social (GRI 400)

GRI Standard	Disclosure	Disclosure Location
Employment	401-1 New employee hires and employee turnover	114, 117, 119, 121, 122, 125, 127, 128, 131, 132, 135, 137
	401-2 Benefits provided to full-time employees that are not provided to temporary or part time employees	76
	401-3 Parental leave	115, 117, 119, 121, 122, 125, 127, 129, 131, 133, 135, 137
Training and education	404-1 Average hours of training per year per employee	115, 117, 119, 121, 122, 125, 127, 128, 131, 133, 135, 137
	404-2 Programs for upgrading employee skills and transition assistance programs	60~63
	404-3 Percentage of employees receiving regular performance and career development reviews	115, 117, 119, 121, 122, 125, 127, 129, 131, 133, 135, 137
	- Total duration of employees' capability- development training	
Organization's unique indicators	- Total training expenses	115, 117, 119, 121, 122, 125, 127, 129, 131, 133, 135, 137
	- Training expenses per employee	
Occupational health and safety	403-1 Occupational health and safety management system	74, 143
	403-3 Occupational health services	73
	403-4 Worker participation, consultation, and communication on occupational health and safety	69
	403-5 Worker training on occupational health and safety	71~73
	403-6 Promotion of worker health	75
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	69, 71
	403-9 Work-related injuries	
	403-10 Work-related ill health	115, 117, 119, 121, 122, 125, 127, 128, 131, 133, 135, 137
Diversity and equal opportunity	405-1 Diversity of governance bodies and employees/Percentage of employees per employee category	114, 117, 119, 121, 122, 125, 127, 128, 131, 132, 135, 137
	405-2 Ratio of basic salary and remuneration of women to men	
Suppliers and social assessment	414-2 Negative social impacts in the supply chain and actions taken	87

UN SDGs Index

Key Issue	UN SDGs	Main Activities
1 Ethics and anti-Corruption management		Hansol Technics establishes Compliance RM Team Hansol Group establishes Compliance Management System Hansol Technics operates Compliance Management System Hansol Paper acquires ISO 37301 certification and establishes Compliance Risk Management System
		Hansol Group introduces and enhances Health and Safety Rating System (HSRS) Hansol Paper establishes Health and Safety Management System and maintains ISO 45001 certification Hansol PNS conducts safety training for employees Hansol Logistics operates Health and Safety Management System Hansol Technics strengthens its Health and Safety Management System, conducts risk assessment and improvement for each process, and operates a Safety Management Team for proactive response to the Serious Accidents Punishment Act Hansol IONES strengthens its Occupational Health and Safety System through pre-job training for supervisors and a safety and health reward system Tapex establishes and operates a Health and Safety Management System, achieves the highest grade in PSM (Process Safety Management) audits focusing on high-risk facilities, and obtains ISO 45001 certification for all business sites
2 Occupational health and safety management	 	Hansol Paper operates various collaboration and support programs for shared growth with partner companies Hansol PNS promotes open innovation, conducts collaboration MOUs and PoC (Proof of Concept) Hansol Technics forms and operates a consultative body Hansol IONES holds a meeting with partner companies for shared growth Hansol Chemical signs and operates a B2B agreement with financial institutions Tapex conducts environmental, health, and safety management risk assessment and evaluation for partner companies
		Hansol Paper operates various collaboration and support programs for shared growth with partner companies Hansol PNS promotes open innovation, conducts collaboration MOUs and PoC (Proof of Concept) Hansol Technics forms and operates a consultative body Hansol IONES holds a meeting with partner companies for shared growth Hansol Chemical signs and operates a B2B agreement with financial institutions Tapex conducts environmental, health, and safety management risk assessment and evaluation for partner companies
3 Supply chain management and shared growth enhancement	 	Hansol Paper operates various collaboration and support programs for shared growth with partner companies Hansol PNS promotes open innovation, conducts collaboration MOUs and PoC (Proof of Concept) Hansol Technics forms and operates a consultative body Hansol IONES holds a meeting with partner companies for shared growth Hansol Chemical signs and operates a B2B agreement with financial institutions Tapex conducts environmental, health, and safety management risk assessment and evaluation for partner companies
		Hansol Paper operates various collaboration and support programs for shared growth with partner companies Hansol PNS promotes open innovation, conducts collaboration MOUs and PoC (Proof of Concept) Hansol Technics forms and operates a consultative body Hansol IONES holds a meeting with partner companies for shared growth Hansol Chemical signs and operates a B2B agreement with financial institutions Tapex conducts environmental, health, and safety management risk assessment and evaluation for partner companies
4 Enhancing governance transparency		Hansol Group, Hansol Paper, Hansol Technics, Hansol IONES, Hansol Chemical operate Outside Director Nomination Committee Hansol Group, Hansol Paper operate Audit Committee Hansol IONES establishes the Committee for Strengthening Ethical Management Transparency Tapex promotes systematic ESG management by updating ESG performance and strengthening information disclosure
		Hansol Group, Hansol Paper, Hansol Technics, Hansol IONES, Hansol Chemical operate Outside Director Nomination Committee Hansol Group, Hansol Paper operate Audit Committee Hansol IONES establishes the Committee for Strengthening Ethical Management Transparency Tapex promotes systematic ESG management by updating ESG performance and strengthening information disclosure
5 Climate change response		Hansol Paper, Hansol HomeDeco, Tapex develop eco-friendly products Hansol Paper, Hansol HomeDeco, Hansol IONES establish greenhouse gas reduction targets and implementation roadmaps Hansol Technics analyzes climate change risks Hansol Paper, Hansol Technics, Hansol IONES, Hansol Chemical, Tapex engage in greenhouse gas reduction activities through energy efficiency improvements Hansol PaperTech, Hansol HomeDeco, Hansol IONES, Hansol Chemical, Tapex improve the management of waste, wastewater, and pollutants
		Hansol Paper, Hansol HomeDeco, Tapex develop eco-friendly products Hansol Paper, Hansol HomeDeco, Hansol IONES establish greenhouse gas reduction targets and implementation roadmaps Hansol Technics analyzes climate change risks Hansol Paper, Hansol Technics, Hansol IONES, Hansol Chemical, Tapex engage in greenhouse gas reduction activities through energy efficiency improvements Hansol PaperTech, Hansol HomeDeco, Hansol IONES, Hansol Chemical, Tapex improve the management of waste, wastewater, and pollutants

Key Issue	UN SDGs	Main Activities
6 Respect for human rights	  	Hansol Group, Hansol Paper, Hansol PNS, Hansol HomeDeco, Hansol Logistics, Hansol Technics, Hansol Inticube, Hansol IONES disclose Human Rights Management Declaration and Guidelines Hansol Technics, Hansol Logistics, Hansol Paper establish mid to long-term roadmaps for Human Rights Management Hansol Paper, Hansol Technics conduct Human Rights Impact Assessments Hansol Group revamps employee psychological counseling program
		Hansol Paper, Hansol Technics conduct Human Rights Impact Assessments Hansol Group revamps employee psychological counseling program
7 Innovation through sustainable products/Technology	 	Hansol Paper strengthens the development of eco-friendly materials through multilateral development agreements and MOUs Hansol HomeDeco launches Hansol Story Film and Hansol Recycled MDF and expands their application areas Tapex strengthens the development of eco-friendly functional films and expands its eco-friendly product portfolio
		Hansol Paper strengthens the development of eco-friendly materials through multilateral development agreements and MOUs Hansol HomeDeco launches Hansol Story Film and Hansol Recycled MDF and expands their application areas Tapex strengthens the development of eco-friendly functional films and expands its eco-friendly product portfolio
8 Energy conservation and expansion of renewable energy	 	Hansol Paper establishes solar power generation facilities at major business sites Hansol Paper installs air pollution reduction facilities at each business site, improves process efficiency, converts fuel, recovers waste heat, and introduces high-efficiency processes Hansol Technics obtains ISO 50001 Energy Management System certification, relocates inverters in air conditioning facilities, and installs detailed electricity meters for electrical facilities and each process Hansol IONES conducts energy reduction activities through department energy managers Hansol Chemical installs inverters, improves equipment efficiency, and invests in facilities Tapex introduces an RTO (Regenerative Thermal Oxidizer) waste heat recovery system and comprehensively innovates its lighting system
		Hansol Paper establishes solar power generation facilities at major business sites Hansol Paper installs air pollution reduction facilities at each business site, improves process efficiency, converts fuel, recovers waste heat, and introduces high-efficiency processes Hansol Technics obtains ISO 50001 Energy Management System certification, relocates inverters in air conditioning facilities, and installs detailed electricity meters for electrical facilities and each process Hansol IONES conducts energy reduction activities through department energy managers Hansol Chemical installs inverters, improves equipment efficiency, and invests in facilities Tapex introduces an RTO (Regenerative Thermal Oxidizer) waste heat recovery system and comprehensively innovates its lighting system
9 Waste management		Hansol Paper activates the circular economy through the recycling of sterilized cartons Hansol PaperTech replaces the incinerator compressor Hansol IONES identifies and supplements process improvements to reduce waste generation Hansol Chemical improves processes to enhance the waste recycling rate and reduce waste generation
		Hansol Paper activates the circular economy through the recycling of sterilized cartons Hansol PaperTech replaces the incinerator compressor Hansol IONES identifies and supplements process improvements to reduce waste generation Hansol Chemical improves processes to enhance the waste recycling rate and reduce waste generation
10 Customer-Centric management	 	Hansol Paper participates in various exhibitions and hosts the Inspire Award Hansol Inticube hosts a 2024 Contact Center Business and Technology Environment Change Seminar Tapex lays the groundwork for entering the global market through the advancement of ESG
		Hansol Paper participates in various exhibitions and hosts the Inspire Award Hansol Inticube hosts a 2024 Contact Center Business and Technology Environment Change Seminar Tapex lays the groundwork for entering the global market through the advancement of ESG

AFFILIATES AND CERTIFICATIONS

INTRODUCTION | ESG PERSPECTIVE | ENVIRONMENT | SOCIAL | GOVERNANCE | ESG FACTBOOK | APPENDIX

Company name	Certification				
	Environment	Quality	Safety and health	Family-friendly	Others
Hansol Paper	Green Company Certification (Janghang), ISO14001 (Janghang Plant, Daejeon Plant, Cheonan Plant, Shintanjin Plant)	ISO 9001 (Janghang Plant, Daejeon Plant, Cheonan Plant, Shintanjin Plant)	Occupational Health and Safety Management System Certification ISO 45001 (Janghang Plant, Daejeon Plant, Cheonan Plant, Shintanjin Plant), KOSHA-MS (Janghang Plant, Daejeon Plant, Cheonan Plant, Shintanjin Plant)	Family-Friendly Certification (Entire Company)	ISO37301 (Entire Company)
Hansol PaperTech	ISO 14001 (Head Office)	FSC (Head Office)	ISO 45001 (Head Office)		
Hansol PNS	GS Certification (Head Office)				Information Security Management System (ISMS) (Head Office)
Hansol HomeDeco	ISO 14001 (Head Office, Iksan Plant)	ISO 9001 (Head Office, Iksan Plant)	KOSHA-MS (Iksan Plant)	Family-Friendly Certification	
Hansol Technics	ISO 14001 (Head Office) ISO 50001 (Head Office)	ISO 9001 (Head Office)	ISO 45001 (Head Office)		
Hansol Logistics	ISO 9001 (Head Office) ISO 14001 (Head Office)		ISO 45001, Excellent Logistics Company Certification - Cargo Truck Transport Business Sector (Head Office), Excellent Logistics Company Certification - International Freight Forwarding Business Sector (Head Office)		AEO - Freight Forwarder Category (Head Office) Excellent Logistics Company Certification - Integrated Logistics Service Provider Category (Head Office) Excellent Logistics Company Certification - International Freight Forwarding Business Sector (Head Office) Excellent Logistics Company Certification - Cargo Truck Transport Business Sector (Head Office)
Hansol IONES	ISO 14001(Head Office)	ISO9001 (Head Office, Anseong Plant 2, Balan Plant)	KOSHA-MS (Head Office, Anseong Plant 2) ISO45001(Head Office, Balan Plant)	Family-Friendly Certification	ISO27001(Head Office, Balan, Plant 2) Balan) ISO22301(Head Office, Balan)
Hansol Chemical	ISO 14001 (Iksan Plant, Jeonju Plant, Ulsan Plant) Green Company Certification (Jeonju Plant)	ISO 9001 (Jeonju Plant, Ulsan Plant) IATF 16949 (Jeonju Plant, Iksan Plant)	ISO 45001 (Jeonju Plant, Iksan Plant, Ulsan)	Family-Friendly Certification (Head Office)	ISO 37301 (Head Office)
Tapex	ISO14001 (Yanggam Plant, Paltan Plant, Unilap Plant, Saemangeum Plant)	ISO 9001 (Yanggam Plant, Paltan Plant, Unilap Plant) IATF 16949 (Yanggam Plant, Paltan Plant, Saemangeum Plant)	ISO 45001 (Yanggam Plant, Paltan Plant, Unilap Plant, Saemangeum Plant)	Family-Friendly Certification	ISO 27001 (Head Office, Yanggam Plant, Paltan Plant, Saemangeum Plant) TISAX (Head Office, Yanggam Plant, Paltan Plant, Saemangeum Plant) Hidden champion (Head Office), Certified as a Specialist in Materials, Parts, and Equipment

I AWARDS

Company name	Date	Award	Awarded by
Hansol Paper	July 2024	EcoVadis Platinum Rating (2 consecutive years)	EcoVadis SAS
	February 2024	Ranked No. 1 for 22 consecutive years in the Paper Sector of the 'Most Respected Companies in Korea' 2024	Korea Management Association Consulting (KMAC)
	July 2024	Green Product of the Year (Save the Whale Wet Wipes) for 2 consecutive years	Korea Green Purchasing Network (Supported by the Ministry of Environment)
		Minister of Environment Award for Meritorious Service in the Resource Recycling Sector	Ministry of Environment
	April 2024	President's Award of the Korea Packaging Federation (Inspire Signature Eco 100)	Korea Institute of Industrial Technology (KITECH)
		Plaque of Appreciation for Being Selected as a Meritorious Taxpayer Corporation	Seocheon County Office
	December 2024	Governor's Commendation	Chungcheongnam-do Province
		Designated as a Green Company	Ministry of Environment
		Fire Safety Management	National Fire Agency
	November 2024	Grand Prize in TMS Best Practice Contest (Minister of Environment Award)	Korea Environment Corporation (KECO)
		Excellent Paper Industry Person Award	Korea Paper Association
	November 2024	Minister of Trade, Industry and Energy Award (Excellent Workplace in Safety Management)	Ministry of Trade, Industry and Energy (MOTIE)
Hansol PaperTech	February 2025	Awarded the Minister of Environment Award for Contribution to Environmental Love in the 2025 Happiness Plus Social Contribution Campaign	Ministry of Environment
Hansol PNS	November 2024	Public-Private Partnership Open Innovation Support Project (Merit Award)	Minister of SMEs and Startups
Hansol HomeDeco	July 2024	Green Product of the Year	Korea Green Purchasing Network (Non-Profit Organization)
	July 2024	Carbon Neutrality Winner Award	Citizens' Alliance for Consumer Protection of Korea (CACPK)
	October 2024	Grand Prize in Fire Drill Competition for Fire-Safety Managed Building Personnel	Governor of Jeollabuk-do Province
	October 2024	Excellent Award for Outstanding Activities in Jeonbuk's Resolution to Reduce Major Accidents	Head of the Iksan Branch Office of the Ministry of Employment and Labor
	November 2024	Excellent Award for Best Practice in Risk Assessment	Regional Head of the Korea Occupational Safety and Health Agency (KOSHA)
	December 2024	Commendation for Meritorious Service in Labor-Management Culture	Prime Minister
	December 2023	Plaque of Appreciation No. 2023-059	Korea Occupational Safety and Health Agency (KOSHA)
Hansol Chemical	November 2024	Letter of Commendation	Jeonbuk Regional Environmental Office
	December 2024	Letter of Commendation	Governor of Jeonbuk Special Self-Governing Province
Tapex	November 2022	Minister's Award for Excellent Company in Materials, Parts, and Equipment	Ministry of Trade, Industry and Energy (MOTIE)
	December 2022	Fifty Million Dollar Export Tower Award	Korea International Trade Association (KITA)
	January 2024	12th Taxpayer Rights Award	Korea Taxpayers' Federation

I LOCAL BUSINESS SITES

Company name	Business sites	Address
Hansol Holdings	Headquarters	25/F, Pine Avenue Building B, 100 Eulji-ro, Jung-gu, Seoul, Republic of Korea
	Headquarters	23 ~ 24/F, Pine Avenue Building B, 100 Eulji-ro, Jung-gu, Seoul, Republic of Korea
	Janghang Plant	149 Jangsan-ro, Janghang-eup, Seocheon-gun, Chungcheongnam-do, Republic of Korea
	Daejeon Plant	50 Sinilseo-ro 68 beon-gil, Daedeok-gu, Daejeon, Republic of Korea
	Cheonan Plant	4186 Sejong-ro, Gwangdeok-myeon, Dongnam-gu, Cheonan-si, Chungcheongnam-do, Republic of Korea
Hansol Paper	Sintanjin Plant	60 Sinilseo-ro 126 beon-gil, Daedeok-gu, Daejeon, Republic of Korea
	Central Research Center	50 Sinilseo-ro 68 beon-gil, Daedeok-gu, Daejeon, Republic of Korea
	Environmental Business Headquarters	3/F, Ubiquitous Building, 68 Pangyo-ro 255 beon-gil (616 Sampyeong-dong), Bundang-gu, Seongnam, Gyeonggi-do, Republic of Korea
Hansol PaperTech	Headquarters	80 Daechi 7-gil, Daejeon-myeon, Damyang-gun, Jeollanam-do, Republic of Korea
	Headquarters (Paper Distribution Division)	5/F, Ilheung Building, 213 Toegye-ro, Jung-gu, Seoul, Republic of Korea
	Headquarters (IT Service Division)	6/F, NH Nonghyup Building, 570, Yangcheon-ro, Gangseo-gu, Seoul, Republic of Korea
Hansol PNS	Chungmuro Center	Ground F, 120-1, Pildong 2-ga, Jung-gu, Seoul, Republic of Korea
	Paju Converting Center	108 Jikji-gil, Paju-si, Gyeonggi-do, Republic of Korea
	Paju Integration Center	96 Jikji-gil, Paju-si, Gyeonggi-do, Republic of Korea
Hansol HomeDeco	Headquarters	27/F, Jeonmun Geonseo Hoegwan, 15 Boramae 5-gil, Dongjak-gu, Seoul, Republic of Korea
	Iksan Plant	54 Seogam-ro 17-gil, Iksan-si, Jeollabuk-do, Republic of Korea
	Headquarters	5/F, Pine Avenue Building B, 100 Eulji-ro, Jung-gu, Seoul, Republic of Korea
	Jincheon Plant	55 Hansam-ro, Deoksan-myeon, Jincheon-gun, Chungcheongbuk-do, Republic of Korea
Hansol Technics	Ochang Plant	140 Gwahaksaneop 1-ro, Oksan-myeon, Heungdeokgu, Cheongju-si, Chungcheongbuk-do, Republic of Korea
	Suwon Research Center	6,7,8,14/F, Building C, Digital Empire Building, 16, Deokyeong-daero 1556beon-gil, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea
	Headquarters	22/F, Pine Avenue Building B, 100 Eulji-ro, Jung-gu, Seoul, Republic of Korea
	Gunsan CY Center	2/F, 195, Weihang-ro, Gunsan-si, Jeollabuk-do, Republic of Korea
	Gunsan Branch	Pier 5, Gunsan Port, 194 Seohae-ro (Soryong-dong), Gunsan-si, Jeollabuk-do, Republic of Korea
	Daejeon Center	50 Sinilseo-ro 68 beon-gil (Sinil-dong), Daedeok-gu, Daejeon, Republic of Korea
	Busan New Port Center	#225, Myeongji Jenaus Blue Ocean, 16, Myeongjigukje 2-ro, Gangseo-gu, Busan, Republic of Korea
Hansol Logistics	Container Sales Team 3	9/F, CJ Daehan Tongun Building, 119, Daegyo-ro, Jung-gu, Busan, Republic of Korea
	Sintanjin CY Center	84, Pyeongchon 1-gil, Daedeok-gu, Daejeon, Republic of Korea
	Sintanjin Center	60 Sinilseo-ro 126beon-gil (Sinil-dong), Daedeok-gu, Daejeon, Republic of Korea
	Janghang Center	149 Jangsan-ro, Janghang-eup, Seocheon-gun, Chungcheongnam-do, Republic of Korea
	Cheonan Center	4186 Sejong-ro, Gwangdeok-myeon, Cheonan-si, Chungcheongnam-do, Republic of Korea
	Headquarters (Anseong Plant)	2061 Anseong-daero, Gosam-myeon, Anseong-si, Gyeonggi-do, Republic of Korea
Hansol IONES	Balan Campus	71-29, Balangongdan-ro 4-gil, Hyangnam-eup, Hwaseong-si, Gyeonggi-do, Republic of Korea
	Dongtan R&D Center	7, Dongtansandan 7-gil, Hwaseong-si, Gyeonggi-do, Republic of Korea
	Anseong 2 Plant	90, Gongdan 2-ro, Anseong-si, Gyeonggi-do, Republic of Korea
Hansol Inticube	Headquarters	14/F, Nuri Dream Square Business Tower, 396 Worldcupbuk-ro, Mapo-gu, Seoul, Republic of Korea
Hansol Chemical	Headquarters	7~8/F, K Tower, 513, Teheran-ro, Gangnam-gu, Seoul, Republic of Korea
	Jeonju Plant	873 Gwahang-ro, Bongdong-eup, Wanju-gun, Jeollabuk-do, Republic of Korea
	Ulsan Plant	116 Napdo-ro, Nam-gu, Ulsan, Republic of Korea
	Iksan Plant	1101, Oryong-ri, Samgi-myeon, Iksan-si, Jeollabukdo, Republic of Korea
	Headquarters	#812-813, 8th Floor, 17 Daehak4-ro, Yeongtong-gu (Iui-dong, Ace Gwanggyo Tower 1-cha), Suwon, Gyeonggi-do, Republic of Korea
	Yanggam Plant	62-16 Chorok-ro 532beon-gil, Yanggam-myeon, Hwaseong-si, Gyeonggi-do, Republic of Korea
Tapex	Paltan Plant	39, Gojudongbang-gil, Paltan-myeon, Hwaseong-si, Gyeonggi-do, Republic of Korea
	Uniwrap Plant	108 Mannyeon-ro, Hyangnam-eup, Hwaseong-si, Gyeonggi-do, Republic of Korea
	Saemangeum Plant	66, Saemangeumsandan 1-ro, Osikdo-dong, Gunsan-si, Jeollabuk-do, Republic of Korea

I ASSOCIATION MEMBERSHIPS

• Hansol Holdings

Organization name
Korea listed companies association
Korea investor relations service
The Korea employers federation

• Hansol Paper

Organization name
Korea listed companies association
Korea investor relations service (KIRS)
The federation of Korean industries
Fair competition federation
Korea chamber of commerce and industry
Korea enterprises federation
Korea paper association
Fair competition federation
KBCSD
Korea resources circulation industry promotion association
TAPPI
JTAPPI
KTAPPI
Korea industrial technology association

• Hansol PaperTech

Organization name
Korea paper industry cooperative
Korea fire safety institute (KFSI)
Gwangju jeonnam jeju area PSM council
Korea international trade association
Korea paper resource association

• Hansol PNS

Organization name
Korea software industry association
Korea international trade association
Korean information & communication contractors association
Korea listed companies association

• Hansol HomeDeco

Organization name
Korea industrial safety association
Korean industrial health association
Korean standards association
Korea electric engineers association
Jeonbuk environmental managers council
Jeonbuk branch of Korea safety association
Hansol honam council
Hansol safety and health council
Korea specialty contractors association Seoul metropolitan city council
Korea wood panel association
Korea exchange Seoul office
Iksan business environment council
Korea energy engineers association
Jeonbuk environmental preservation association
Korea waste recycling association
Jeonbuk regional chemical plant council
Hazardous goods fire safety council
Korea exchange
Korea international trade association
Korea listed companies association
Korea franchise association
Korea fire safety association
Hansol group Seoul council
The Korean society of wood science and technology
Korea proptech forum
Korea resources circulation industry promotion association
UN global compact network Korea
Korea radioisotope association
Korea remodeling association
Jeonbuk regional chemical plant council
Iksan regional occupational safety and health council
Korea wood recycling association (Non-Profit organization)

• Hansol Technics

Organization name
Korean industrial health association
Korea industrial safety association
Environmental preservation association
Korea fire safety institute
Korean nurses association
Korea photovoltaic industry association
Chungbuk environmental engineers association
Chungbuk sejong environmental preservation association
Korea personnel improvement association

• Hansol Logistics

Organization name
Korea trucking association
Korea freight forwarders association
Korea railroad logistics association
Korea customs logistics association
Korea international logistics association
Korea international trade association
International air transport association (IATA)
Korea port logistics association
AEO promotion association
Korea chamber of commerce and industry
Korea listed companies association

• Hansol IONES

Organization name
Environmental preservation association
Fire safety institute
Anseong managers association
Korea international trade association
Korea world class enterprise association
Anseong chamber of commerce
KOSDAQ listed companies association
Korea mech. const. contractors association
Korea electrical engineers association
Korea energy engineers association
The Korean society future forum for semiconductor material part and equipment

• Hansol Inticube

Organization name
Information & communication contractors association
Korea software financial cooperative
Korea international trade association
KOSDAQ listed companies association
Korea artificial intelligence association
Seoul chamber of commerce and industry

• Hansol Chemical

Organization name
Korea chamber of commerce and industry
Korea international trade association
International semiconductor equipment and materials association
Korea industrial safety association
Korea fire safety association
Ulsan environmental engineers association
Korea energy engineers association
Jeonbuk environmental engineers association
Wanju environmental engineers association
Jeonbuk chemical plant council
Jeonju wanju industrial complex fire council
Jeonju industrial complex safety and health managers council
Jeonbuk green business council
Jeonbuk business environment council
Iksan regional safety and health council
KOITA (Korea industrial technology association)
Korea emissions market association
Korea display industry association
Korea chemicals management association (KCMA)
Iksan fire facility association

• Tapex

Organization name
Korea listed companies association
Hwaseong chamber of commerce and industry
Suwon chamber of commerce & industry
Korea international trade association
Korea vinyl environmental council
Korea industrial technology association
The society of adhesion and interface
Korea fire safety association
Korea industrial safety association
Korea electric engineers association
Korea energy engineers association
Korea construction engineers association
Korea mechanical construction contractors association
Gunsan business environmental association
Gunsan firefighting association
Gunsan regional safety and health management association
Jeonbuk environmental engineers association

I INDEPENDENT ASSURANCE STATEMENT

To: The Stakeholders of HANSOL Group

Overview

The British Standards Institution (hereinafter referred to as the “Assurer”) was requested to verify the 2025 HANSOL Group Sustainability Report (hereinafter referred to as the “Report”). The Assurer is independent to HANSOL Group and has no major operational financial interest other than the assurance of the Report. This assurance opinion statement is intended to provide information related to the assurance of the HANSOL Group’s report relating to the environment, social and governance (ESG) to the relevant stakeholders and may not be used for any other purpose. This assurance opinion statement is prepared based on the information presented by the HANSOL Group. The verification does not extend beyond such information and is solely based on it. In performing such verification, the Assurer has assumed that all such information is complete and accurate. HANSOL Group has responsible for managing the relevant information contained within the scope of assurance, operating the relevant internal control procedures, and for all information and claims contained in the Report. Any queries that may arise by virtue of this independent assurance opinion statement or matters relating to it should be addressed to HANSOL Group only. The Assurer is responsible for providing HANSOL Group’s management team with an independent assurance opinion containing professional opinions derived by applying the assurance methodology to the scope specified, and to provide the information to all stakeholders of HANSOL Group. The Assurer will not, in providing this Independent assurance statement, accept or assume responsibility (legal or otherwise) or accept liability for or in connection with any other purpose for which it may be used, or to any person or party by whom the Independent assurance opinion statement may be read.

Scope

The scope of engagement agreed upon with HANSOL Group includes the following:

- Report contents during the period from January 1st to December 31st 2024 included in the Report, some data of 2025 are included.
- Major assertion included in the Report, such as sustainability management policies and strategies, goals, projects, and performance, and the Report contents related to material issues determined as a result of materiality assessment.
- Appropriateness and consistency of processes and systems for data collection, analysis and review.
- Confirmation of the Report’s compliance with the AA1000 AccountAbility Four Principles and, where applicable, the reliability of the sustainability performance information contained within the Report, based on the type of sustainability assurance performed in accordance with AA1000 AS v3.

The following contents were not included in the scope of assurance.

- Financial information in Appendix.
- Index items related to other international standards and initiatives other than the GRI.
- Other related additional information such as the website, business annual report.

Assurance Level and Type

The assurance level and type are as follows;

- Moderate level based on AA1000 AS and Type 1 (confirmation to the four principles as described in the AA1000 Accountability Principle 2018)

Description and sources of disclosures covered

Based on the scope and methodology of assurance applied, the Assurer reviewed the following disclosures based on the sampling of information and data provided by HANSOL Group.

[Universal Standards]

2-1 to 2-5 (The organization and its reporting practices), 2-6 to 2-8 (Activities and workers), 2-9 to 2-21 (Governance), 2-22 to 2-28 (Strategy, policies and practices), 2-29 to 2-30 (Stakeholder engagement), 3-1 to 3-3 (Material Topics Disclosures)

[Topic Standards]

201-1~2, 203-1, 205-1~2, 301-2, 302-1, 302-3~4, 303-1, 303-4~5, , 305-1~2, 305-4~5, 305-7, 306-1~5, 401-1~3, 403-1, 403-3~7, 403-9~10, 404-1~3, 405-1~2, 414-2.

Methodology

As a part of its independent assurance, the Assurer has used the methodology developed for relevant evidence collection in order to comply with the verification criteria and to reduce errors in reporting. The Assurer has performed the following activities.

- Validation of the materiality assessment and internal analytical process for determining assurance priorities, and a toplevel review of issues that may be raised by external stakeholders in the context of sustainability.
- Discussion with managers and representatives on stakeholder engagement.
- Review of the supporting evidence related to the material issues through interviews with senior managers in the departments responsible.
- Review of the system for sustainability management strategy process and implementation.
- Review of the materiality issue analysis process and prioritization and verifying the results.
- Verification of data generation, collection and reporting for each performance index and document review of relevant systems, policies, and procedures.
- An assessment of HANSOL Group's reporting and management processes against the principles of Inclusivity, Materiality, Responsiveness and Impact as described in the AA1000 AccountAbility Principles Standard (2018).
- Visit of the HQ of HANSOL Group to confirm the data collection processes, record management practices.

Limitations and approach used to mitigate limitations

The Assurer performed limited verification for a limited period based on the data provided by HANSOL Group. It implies that the Assurer is therefore subject to limitations relating to inherent risks that may exist without the identification of material errors. The Assurer does not provide assurance on possible future impacts that cannot be predicted or verified during the verification process and any additional aspects related thereto.

Competency and Independence

British Standards Institution (BSI) is a leading global standards and assessment body founded in 1901. BSI is an independent professional institution that specializes in quality, health, safety, social and environmental management with over 120 years history in providing independent assurance services globally. No member of the assurance team has a business relationship with HANSOL Group. The Assurer has conducted this verification independently, and there has been no conflict of interest. All assurers who participated in the assurance have qualifications as an AA1000AS assurer, have a lot of assurance experience, and have indepth understanding of the BSI Group's assurance standard methodology.

Opinion Statement

The assurance was conducted by a team of sustainability report assurers in accordance with the AA1000 Assurance Standard v3. The Assurer planned and performed the verification and collected sufficient evidence to explain HANSOL Group's approach to the AA1000 Assurance Standard and to provide confidence in its self-declaration of compliance with the GRI Standards. On the basis of our methodology and the activities described above, it is our opinion that the information and data included in the Report are accurate and reliable and the Assurer cannot point out any substantial aspects of material with mistake or misstatement. We believe that the economic, social and environment performance indicators are accurate and are supported by robust internal control processes.

Conclusions

The Report is prepared in accordance with the GRI Standards. (Reporting in accordance with the GRI standards). A detailed review against the AA1000 AccountAbility Principles of Inclusivity, Materiality, Responsiveness and Impact and the GRI Standards is set out as below.

■ Inclusivity: Stakeholder Engagement and Opinion

HANSOL Group defines the key stakeholders that have a significant impact on corporate management activities as shareholders, investors, executives and employees, customers, partners, communities, NGOs, and the government. In order to collect opinions on the positive and negative effects of corporate activities, we actively collect opinions from stakeholders and reflect them in management activities such as strategy establishment and implementation. In addition, we collect expectations and various opinions from each core stakeholder group, reflect on the major issues that have been derived in decision-making related to sustainability, and disclose the process through reports.

■ **Materiality: Identification and reporting of material sustainability topics**

HANSOL Group established a strategy related to sustainable management, established a process to derive reporting issues, applied a double materiality assessment method, and evaluated the environmental and social impacts of each of the 22 issues in the issue pool as well as the financial impacts, and selected “ethics and anti-corruption management,” “industrial safety and health management,” and “strengthening supply chain management and shared growth” as the most important issues, including this, and derived a total of 10 key issues. The response management process for each critical issue is disclosed in the report.

■ **Responsiveness: Responding to material sustainability topics and related impacts**

HANSOL Group has established a management process for key reporting issues related to important sustainability topics and related impacts. In order to respond appropriately in a way that reflects the expectations of stakeholders, the report discloses policy on key reporting issues, task performance status, activity performance, and response performance, including improvement measures.

■ **Impact: Impact of an organization’s activities and material sustainability topics on the organization and stakeholders**

HANSOL Group has established a process to identify and evaluate the impact on organizations and stakeholders related to key reporting issues. The results of the analysis of impact, risk, and opportunity factors on key reporting issues are used to make decisions to establish a response strategy for each issue, and the process is disclosed through reports.

Recommendations and Opportunity for improvement

The Assurer provides the following observations to the extent that they do not affect the assurance opinion;

As various global sustainability disclosure standards are published, it is necessary to operate with ESG-related standards in mind to make the organization’s sustainability management system more robust.

GRI-reporting

HANSOL Group has self-declared compliance with GRI Standards. Based on the data and information provided by HANSOL Group, the Assurer confirmed that the Report is prepared in accordance with the GRI Standards and confirmed there are no errors in the disclosures related to the Universal Standards and Topic Standards Indicators. No sector standard is applied.

30/05/2025

For and on behalf of BSI (Brithish Standards Institution):

BSI representative

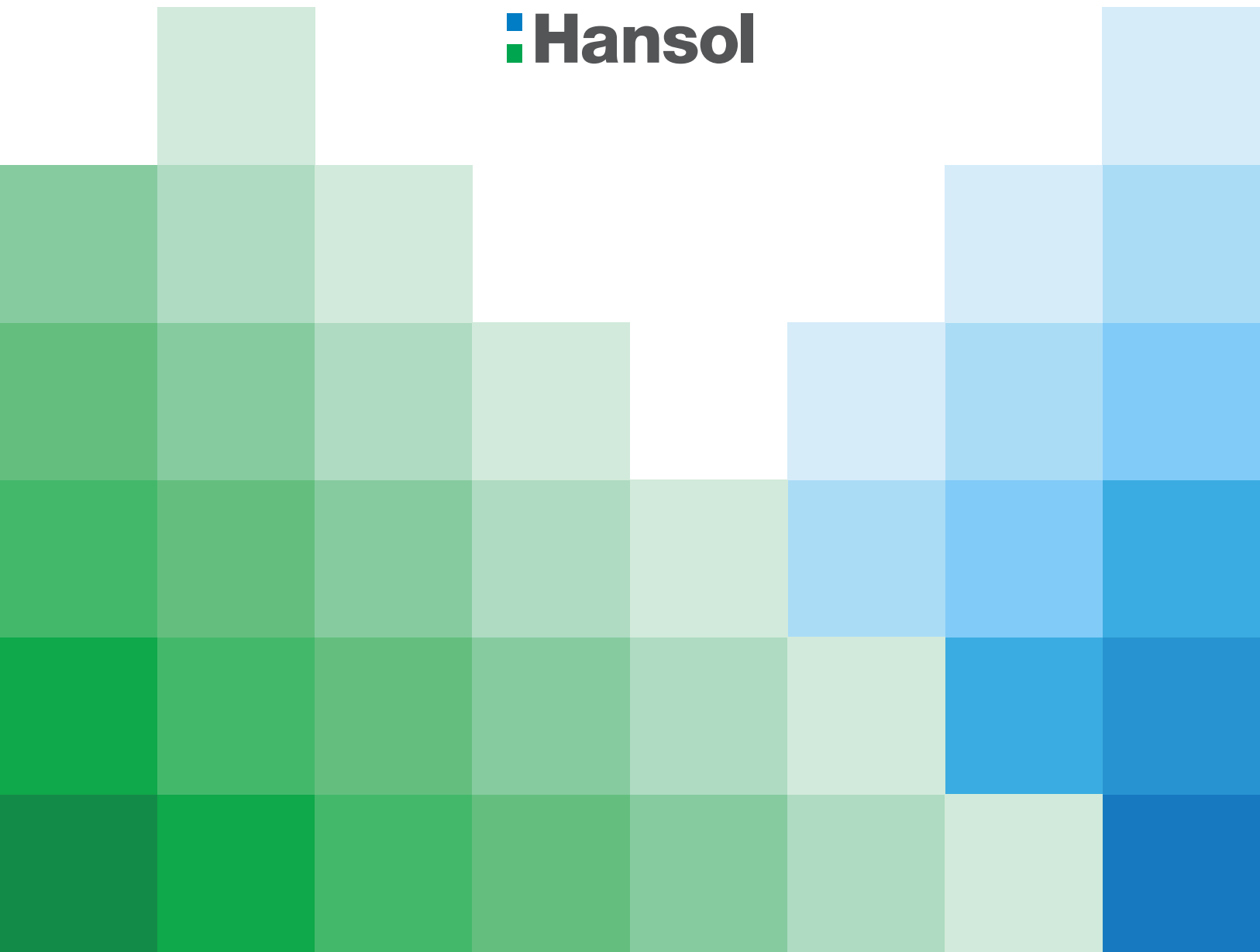
Jong Ho Lee,
Lead Assurer



Seonghwan Lim,
Managing Director of BSI Korea



AA1000
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The background features a decorative pattern of squares in various shades of green and blue, arranged in a stepped, staircase-like formation. The green squares are on the left and bottom, while the blue squares are on the right and top.

 **Hansol**