

Sustainable wArmth For Everyone

About this Report

Report Outline

The Hanwha Systems Sustainability Report 2024 describes our performance in environmental, social, and economic responsibility and sustainability management and provides transparent information disclosure every year, thru which we actively communicate with stakeholders. This report focuses on material issues with high financial impact level and social, environmental impact level based on the results of dual materiality assessment, and discloses major activities and performance categorized into environmental (E), social (S), and governance (G).

Report Standards

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards 2021, the international reporting standards for Sustainability Reports. We have also incorporated indicators from the Task Force on Climate-related Financial Disclosures (TCFD), the Sustainability Accounting Standards Board (SASB), and the United Nations Sustainable Development Goals (UN SDGs) to disclose our activities by key issues appropriate to our industry.

Reporting Period

This report covers our ESG activities and performance from January 1 to December 31, 2023, while some performance results include data up to the first half of 2024. In addition, quantitative performance is included for the last three years (2021–2023) to show year-over-year trends.

Report Issue Date

This report is issued on June 24, 2024.

Scope

The financial and non-financial data in this report are collected and reported based on data covering all domestic and overseas sites of Hanwha Systems' Defense and ICT Businesses. In particular, the financial data is based on Korean International Financial Reporting Standards (K-IFRS). For the convenience of readers, some information that requires attention to the scope and boundaries of reporting has been annotated separately.

Report Assurance

The financial data in this report has been independently audited by Deloitte Anjin LLC, and the non-financial data has been independently verified by the Korea Economic Research Institute to ensure objectivity and credibility.

Contact Information

For any inquiries or questions regarding the report, please refer to the contact information provided below.

- Department Hanwha Systems Sustainability Team
- TEL (ESG Team) 02.729.3388
- Email (ESG Team) hsc.esg@hanwha.com
- Homepage <https://www.hanwhasystems.com/>

Interactive User Guide

Hanwha Systems Sustainability Report was thoughtfully designed as an interactive PDF, providing an enhanced experience for readers. Through its interactive features, such as embedded web links and video playback, it aims to facilitate a deeper understanding of the content presented.

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Introduction

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ESG Chairman's Message

Hello, I'm Woo-Jong Lee, Chairman of the ESG Committee at Hanwha Systems.

I would like to thank you for your interest in the ESG Committee of Hanwha Systems.

With the full support of the Board of Directors, our ESG Committee has been working tirelessly to establish a bridgehead for sustainable management, and we have achieved some impressive results. In 2023, we achieved an overall "A" rating for the third consecutive year from Korea's leading ESG rating agency, KCGS, and improved our rating from international rating agency MSCI for the second consecutive year, earning an "A" rating in 2024.

All employees of Hanwha Systems have been actively responding to the global demand for sustainability.

But we can't rest on our laurels – our efforts will continue in 2024. We will be fully prepared for our sustainability disclosures, which will become mandatory in 2026. We will accelerate the organization's internal process overhaul and build infrastructure across the external supply chain. In addition to participating in the Carbon Disclosure Project (CDP) assessment to proactively address GHG emissions, we are making plans to proactively implement the assessments on biodiversity, human rights, and human resources that the International Sustainability Standards Board (ISSB) is considering as follow-up tasks.

These efforts confirm our commitment to building a sustainable business through stakeholder-friendly management, and ultimately reaffirm our fundamental orientation to enhance shareholder values. All of us at Hanwha Systems hope that our business will not only safeguard peace in the region, but also contribute to global sustainability and prosperity for the mankind. With your continued encouragement and unwavering support, we are optimistic that this hope will soon become a reality. In that sense, I ask for your continued encouragement and support again. Thank you,



Chairman of Hanwha Systems ESG Committee

Woo-Jong Lee



CEO Message

We create a better and safer world

'We create a better and a safer world', 'Sustainable warmth for everyone'

To all our stakeholders who have closely followed and supported Hanwha Systems sustainability efforts to make more prosperous and safer future for the humanity:

I'm Sung-Chul Eoh, CEO of Hanwha Systems.

We would like to express our deepest gratitude for your continued interest and support for our company's growth over the last year.

In the summer of 2023, the world suffered through one of the worst heat waves in recorded weather history. Now global temperatures continue to rise, and related economic costs are expected to run into the trillions. The threat of global war, which we initially thought would be over soon, is still ongoing, and many companies are facing stagnant growth due to trade and financial issues.

At a time like this, we recognize that furthering our commitment to ESG management is not only essential for the well-being of our planet, but also critical to our long-term business growth. More uncertain the internal and external business environment is getting, more emphasis is being placed on the company's ability to provide agile response and undertake social responsibility. This again underscores the need for us to make ESG management activities more actively.

For the issuance of this report, Hanwha Systems conducted a scenario analysis on future climate change to identify financial impact. The report discloses Hanwha Systems strategy on material sustainability issues in accordance with ISSB disclosure standards. In addition, Hanwha Systems has established human rights and supply chain management policies whose importance is growing globally. Also, by entering the space internet service business, we intend to help resolve the digital divide across the world and contribute to identifying and preventing environmental pollution through the earth observation services.

Going forward, Hanwha Systems will continuously make efforts to make more prosperous and safer world based on 'Hyper-connectivity, Hyper-intelligence, and Hyper-convergence' technologies. We will also reflect changes in the business environment and the needs of stakeholders in our ESG activities to drive sustainable growth for all. We hope that you join us on our bold journey to 'Global Value-up', as envisioned by 2024 Sustainability Report.

CEO of Hanwha Systems
Sung-Chul Eoh



Company Profile

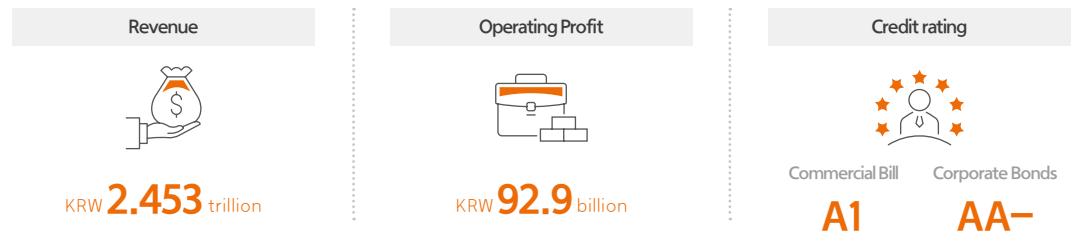
Corporate Overview

Hanwha Systems is a global total solutions provider with sophisticated defense electronics and smart IT technologies. Its Defense Business is leading the future of Korea's smart defense as the country's No. 1 company in defense electronics with more than 40 years of advanced technology and know-hows encompassing land, sea, air, space, and cyber areas. The ICT Business also provides comprehensive IT solutions for various industries such as manufacturing, defense, finance, services, and education, supporting customers' business innovation and digital transformation.

Furthermore, we are actively exploring and investing in new businesses such as Low Earth orbit (LEO) satellite projects to proactively respond to future changes in line with the 4th industrial revolution era. We will continue to expand and innovate eco-friendly business models to create more prosperous and safer society together with our customers through hyperconnectivity, hyperintelligence, and hyper-convergence technologies.

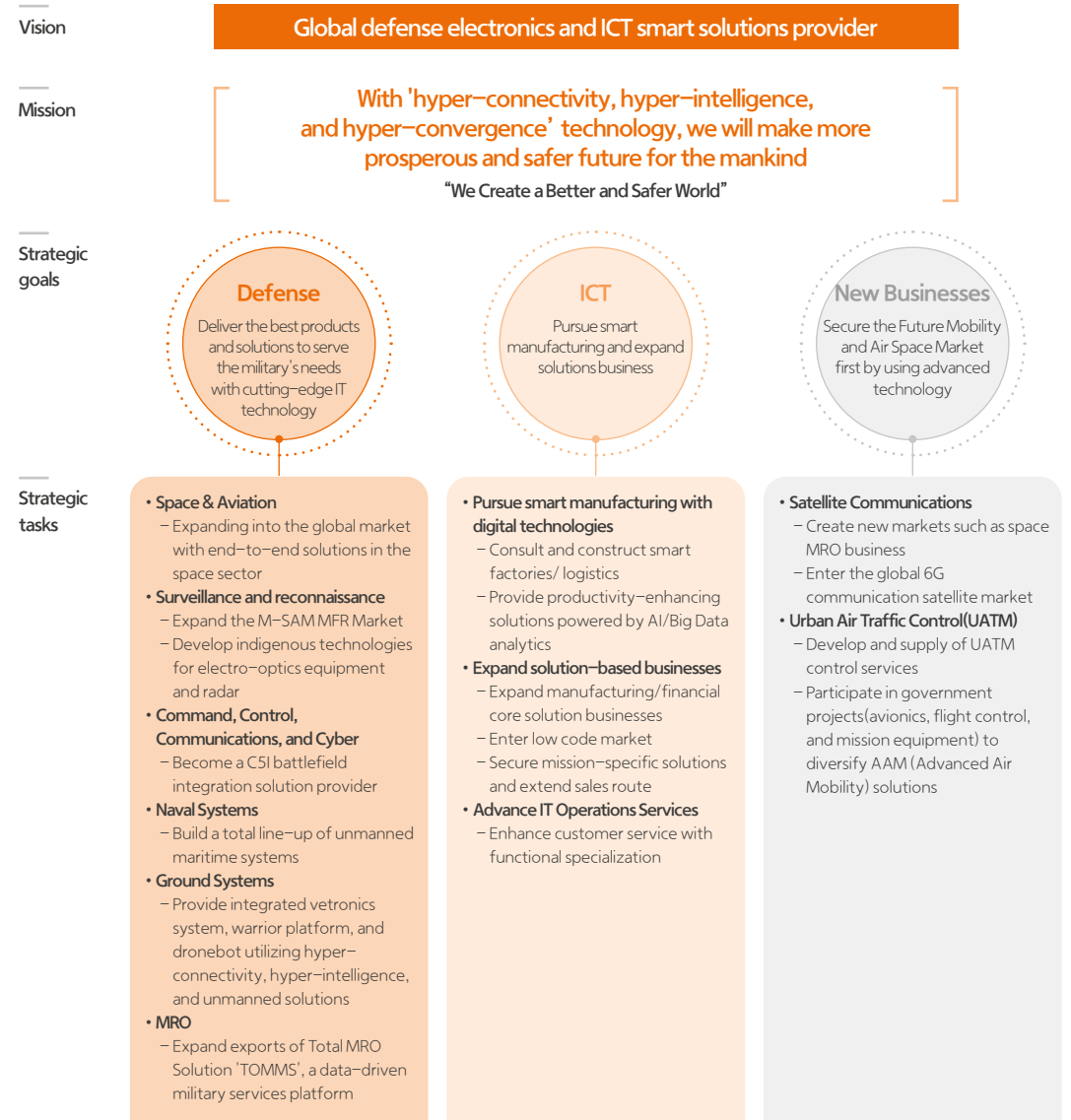
Company

Company Name	Hanwha Systems Co., Ltd.
CEO	Sung-Chul Eoh
Date of Founding	January 11, 2000
Business Fields	Defense and IT Services Business
HQ Location	244, 1 Gongdan-ro, Gumi-si, Gyeongsangbuk-do
Number of Employees	4,741



* As of the 24th Annual Report(Consolidated)

Vision and Strategy

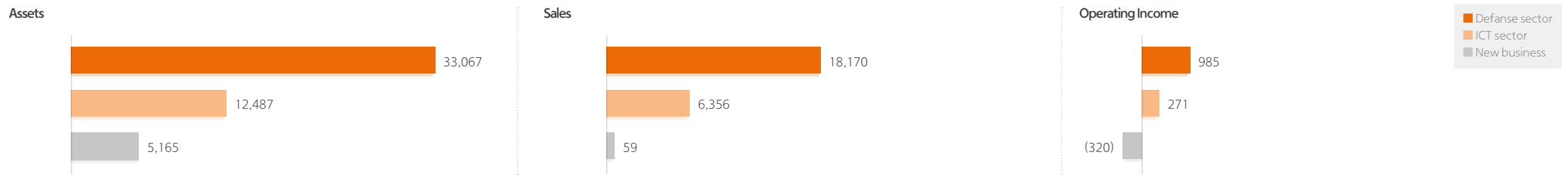


Company Profile

Businesses

2023 Financial Key Figures

(Unit: KRW 100 million)



* Based on consolidated financial statements

Defense

• Surveillance and Reconnaissance

We are leading the development of sensor systems that support surveillance and reconnaissance activities of land, sea, and air forces. We developed electro-optics equipment and radar, the core sensors of weapon systems, with our own domestic technology.

• Command and Control

We are enhancing Command and Control (C2) Systems, Fire Control System (FCS), Command, Control, Communications, Computers, and Intelligence (C4I), Satellite Communication, Tactical Communication, Cyber Warfare, and Electronic Warfare capabilities to support future Network-Centric Warfare (NCW). These technologies allow the users to swiftly share battlefield situations and information, providing hyperconnectivity, intelligent command and control, and communication solutions.

• Naval and Ground

We have over 40 years of indigenous development capabilities in naval combat systems and possess top-tier capabilities in developing shipboard sensors, weapon integration solutions, and unmanned systems. With Integrated Vetrionics System (IVS), a cutting-edge ground combat system, we are leading the future ground force system area.

• Space/Air

We provide solutions ranging from electro-optical and SAR payloads for medium and large satellites to the development of systems and payloads for small satellites. In the air business, we are offering avionics solutions for critical missions of fixed-wing, rotary-wing, and unmanned aerial vehicles, as well as core solutions for Manned-Unmanned Teaming(MUM-T) aircraft.

• MRO

We provide optimal integrated system support solutions throughout the entire lifecycle of weapon systems, including requirement generation, R&D, mass production, operation and maintenance, and disposal, to maximize customer satisfaction.

ICT

• Smart Manufacturing

Based on our industry expertise and digital transformation technologies such as AI and big data, Hanwha Systems is promoting consulting, automation, and intelligentization businesses in core areas of manufacturing such as production and logistics.

• IT Outsourcing

Hanwha Systems is a business that provides IT system and infrastructure operation and maintenance services for customers, and has a high-quality service system for strengthening business competitiveness and business innovation.

• SI (System Integration)

Hanwha Systems is a business that builds IT systems necessary for companies to conduct business and provides services such as consulting, system development, server and network construction. Systems can be developed quickly and economically with low-code technology.

• Smart C&E

Hanwha Systems provides smart solutions for facility control, interlocking, monitoring, and security control of buildings, houses, SoCs, and other facilities.

New Business

• ESA (Electronically Steerable Antenna)

Hanwha Systems is developing ESA for communication satellites based on its advanced communication, sensor, and ICT capabilities. ESA is a next-generation technology that can provide 5G-LTE-level high-speed internet service via satellites in low orbit over the Earth. It is a key technology for realizing the space internet.

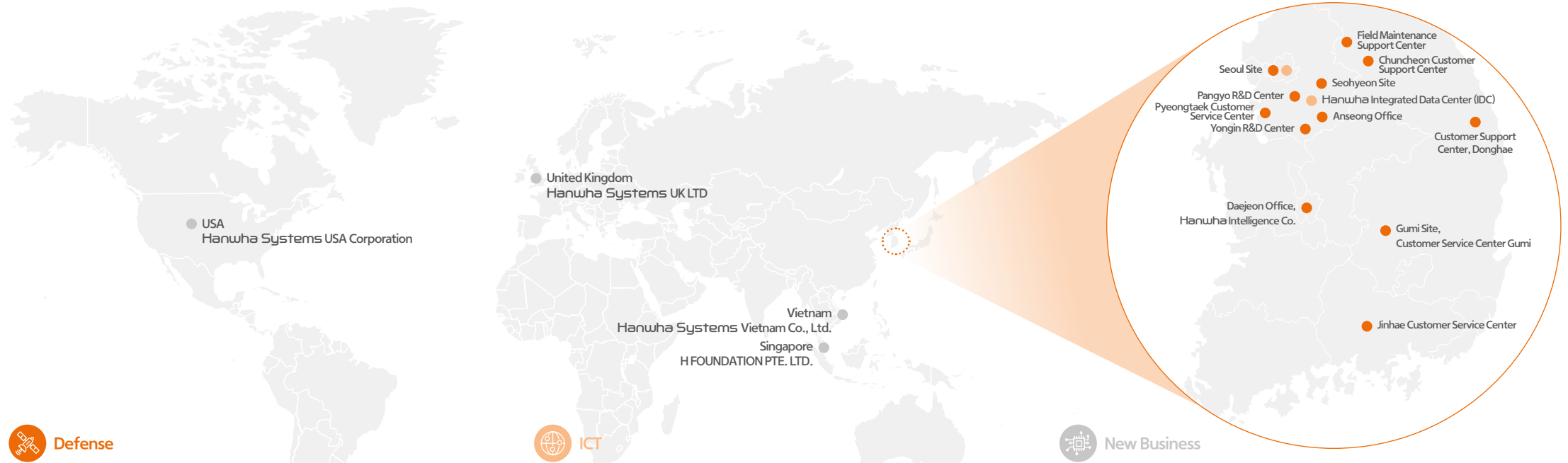
• UATM(Urban Air Traffic Control)

Hanwha Systems is leading the defense AAM (Advanced Air Mobility) market by participating in various government projects such as electronic warfare, flight control, and mission equipment.

Company Profile

Status of Major Business Locations

As of December 2023, **Hanwha Systems** operates 8 sites for Defense Business, 2 sites for ICT Business and 4 sites for New Business. In addition, 6 customer support centers for defense customers are in operation. The workforce, production, and research facilities for major defense-related businesses are located at the headquarters in Gumi Site, Yongin R&D Center, and Pangyo R&D Center, and the main IT infrastructure is managed by Hanwha Integrated Data Center(Jukjeon).



Defense

Category	Number of Business Sites	Product/Service Category	Site details
Local network	8 Sites	Satellite, antenna, radar, and military equipment MRO	Seoul Site, Pangyo R&D Center, Seohyeon Site, Yongin R&D Center, Gumi Site, Daejeon Office, Anseong Office, Hanwha Intelligence Co.
Korean customer support centers	6 Sites		Field Maintenance Support Center, Gumi Customer Service Center, Chuncheon Customer Support Center, Donghae Customer Service Center, Pyeongtaek Customer Service Center, Jinhae Customer Service Center

ICT

Category	Number of Business Sites	Product/Service Category	Site details
Local network	2 Sites	Design and build IT systems Outsourcing computer systems IT convergence engineering services and more	Seoul Site, Hanwha Integrated Data Center (IDC)

New Business

Category	Number of Business Sites	Product/Service Category	Site details
Overseas network	4 Sites	Satellite Communications Antenna Digital platforms	(USA) Hanwha Systems USA Corporation (United Kingdom) Hanwha Systems UK LTD (Singapore) H FOUNDATION PTE. LTD. (Vietnam) Hanwha Systems Vietnam Co., Ltd.

* As for overseas network sites, this report includes only those subsidiaries where Hanwha Systems has made direct equity investments out of all the controlled subsidiaries.

ESG Management

ESG Charter and Strategic Framework



Sustainable wArmth For Everyone

Our technology creates a warmer, more sustainable world where everyone in society can dream of a safe and comfortable tomorrow.

By establishing an ESG Committee and an independent sustainability management department in 2021, Hanwha Systems has been taking the lead in enhancing and managing social value in addition to improving corporate productivity. Our mission is to make the global human society richer and safer through advanced technologies in global defense and ICT, and we consider it a virtue to take action for the 'planet we live on together', including shared growth with communities, various stakeholders, and suppliers.

Hanwha Systems has established ESG Charter and four ESG management policies to create a sustainable future for the mankind and the planet. In alignment with the ESG Charter and polices, we will do our best to proactively implement ESG strategies and initiatives and spread ESG values to all stakeholders, so as to ensure that all the members of the society can envision a safer and secure future.

In addition, we will continue to practice ESG management unwaveringly as we are doing now to become a global No.1 defense and ICT leader based on our core values of 'trust and loyalty', challenge and dedication.

ESG Charter and Four ESG Policies

ESG Charter

Hanwha Systems is committed to practicing ESG management policies to safeguard the global environment and contribute to the well-being and prosperity of the society.

Four ESG Policies



Hanwha Systems acknowledges the severity of the climate crisis and global warming and applies **environmental management policies** to restore the global environment.



Hanwha Systems practices **integrity management policies** by actively intervening and taking the lead in solving social issues such as inequality, injustice, and discrimination that hinder social development.



Hanwha Systems practices **human rights management policies** by prioritizing the health and safety of our employees and advocating for universal values and human rights.



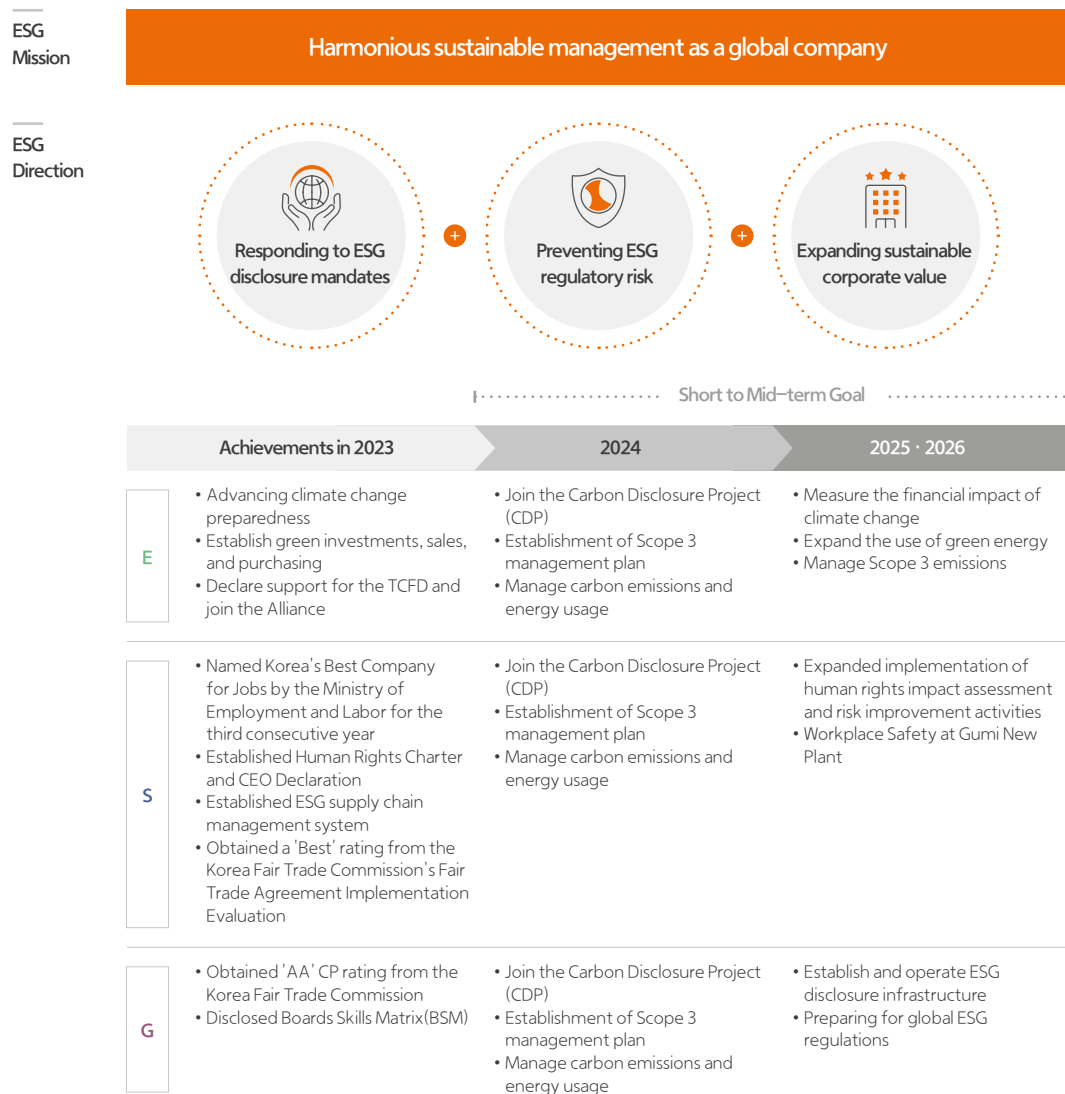
Hanwha Systems practices **responsible management policies** that prioritize the interests of all stakeholders and contribute to the advancement of the nation and society through transparent and equitable measures.



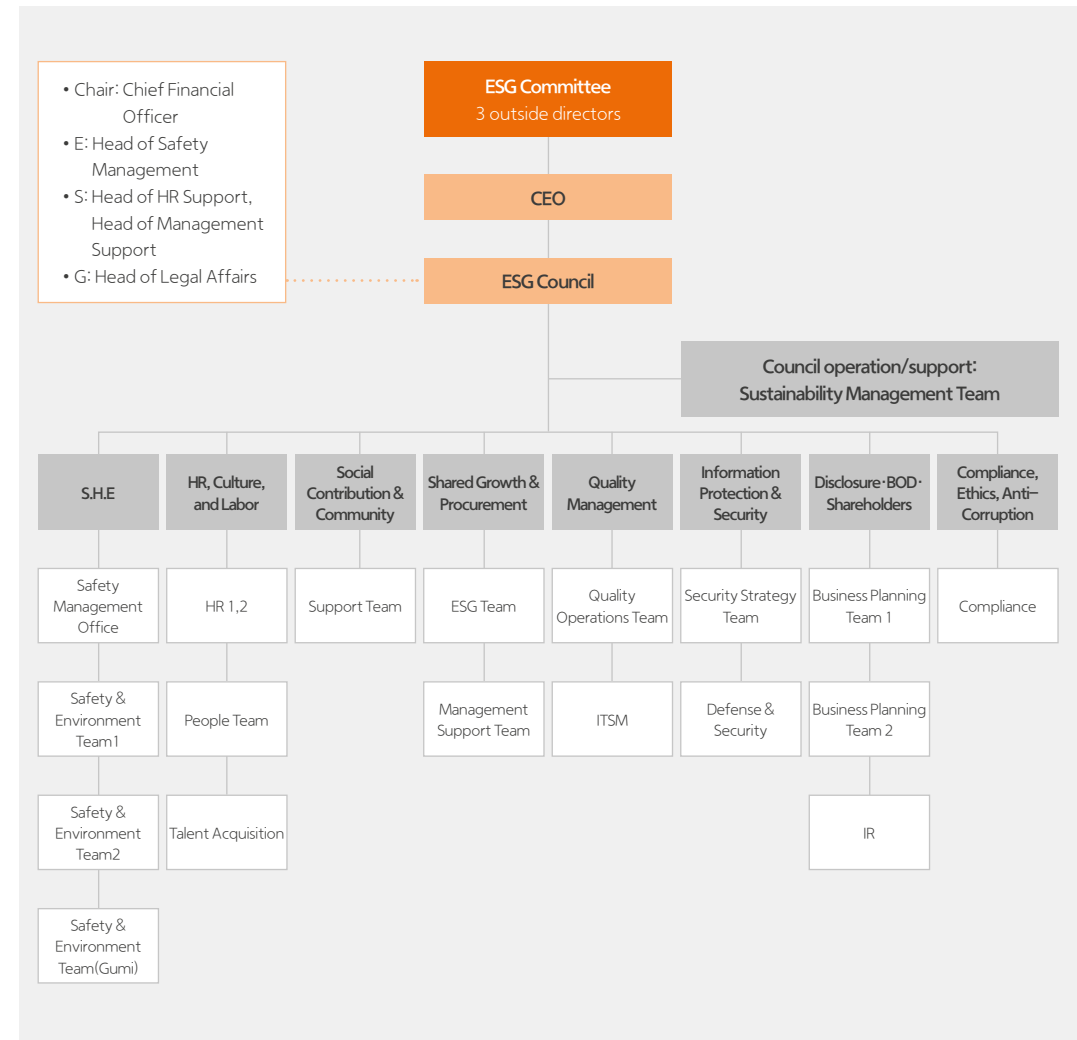
ESG Management

ESG Charter and Strategic Framework

ESG management strategy and roadmap



ESG Management Governance



* The composition of the council changes from time to time based on internal and external requirements.

ESG Management

ESG 경영 거버넌스

ESG Committee

s-wide ESG governance system for effective ESG management. Based on the ESG Committee, the highest level of ESG governance, we operate the ESG Council, which is led by the executive in charge of Environment and Safety Management, and have a governance and reporting system that engages the Board of Directors as well as the top management. The ESG Committee, which is composed of three outside directors and ensures independence and transparency, reviews important ESG-related decisions and risks. The ESG Committee meets regularly, at least once a quarter, to review and make decisions on ESG management plans and performance, and non-financial risks deemed material.



ESG Committee Chairperson
Woo-Jong Lee



ESG Committee Commissioner
Hyung-Joo Hwang



ESG Committee Commissioner
Bon-Seon Gu

ESG Committee Key Activities

Meeting Dates	Major Agendas	Approval Status	Attendance by inside and outside directors
2023.03.27	• Agenda 1: Appointment of ESG Committee Chairperson	Approved	100%
	• Report: Status of ESG Activities and Major Plans for 2023	-	
	• Report: Plan to publish the Sustainability Report in 2023	-	
2023.06.22	• Report: Publishing the Sustainability Report in 2023	-	
	• Report: ESG H1 2023 highlights and plans for the second half of the year	-	
2023.09.04	• Report: ESG Q3 Highlights and Q4 Plans	-	
2023.12.18	• Agenda 1: Establishment of major ESG goals for 2024	Approved	
	• Report: 2023 Domestic ESG Assessment Results	-	
	• Report: ESG Key Activities and Achievements in 2023	-	

ESG Council and Task Forces

Hanwha Systems has established a dedicated organization(Sustainability Management Team) for stable ESG management. This team responds to internal and external ESG issues and evaluation, and carries out initiative activities. In addition, the ESG Council, composed of representatives from ESG-related departments across the company, compiles ESG performance and plans every month to check ESG performance and encourage activities to practice ESG management that involves everyone, not just certain departments.

ESG Council Role

- Create an annual ESG action plan and implement improvements
- Derive ESG vulnerability analysis and tasks such as quarterly ESG activity close-out, evaluation, and diagnosis through ESG ON (Hanwha Systems ESG management system)
- Compile monthly key ESG activities and build robust ESG governance around DT

ESG Management

2023 ESG Key Figures

	<p>Achieved 'A' rating in KCGS ESG Comprehensive Rating for 3 Consecutive Years</p>				<p>Achieved Excellent Rating for 2 Consecutive Years in 'Korea's Win-Win Growth Index'</p>	<p>Established sustainable supply chain management policy and Human Rights Management Charter</p>
	<p>Achieved 'A' rating in MSCI ESG Evaluation</p>	<p>Achieved 'A' rating in MSCI ESG Evaluation</p>	<p>Only defense company that achieved Veterans Hiring Excellence Certification, Recognized as an Excellent Company for Supporting Military Personnel Employment</p>	<p>0 Cases of Serious Accidents</p>		
<p>Strengthen Environment and Safety Management Governance</p>		<p>Investment in S.H.E management KRW 3.79 billion</p>	<p>Zero environmental penalties, 0 Cases of Violations</p>		<p>60% of outside directors' proportion 100% attendance of outside directors at board meetings</p>	<p>Achieved 'AA' rating in Compliance Program (CP) ISO 37301 (Compliance Management), ISO 37001 (anti-corruption) certifications</p>
	<p>Developed and operated a chemical management system</p>		<p>ISO 27001 (information security), ISMS (information security management system) certifications</p>	<p>Strengthened integrated risk management</p>		

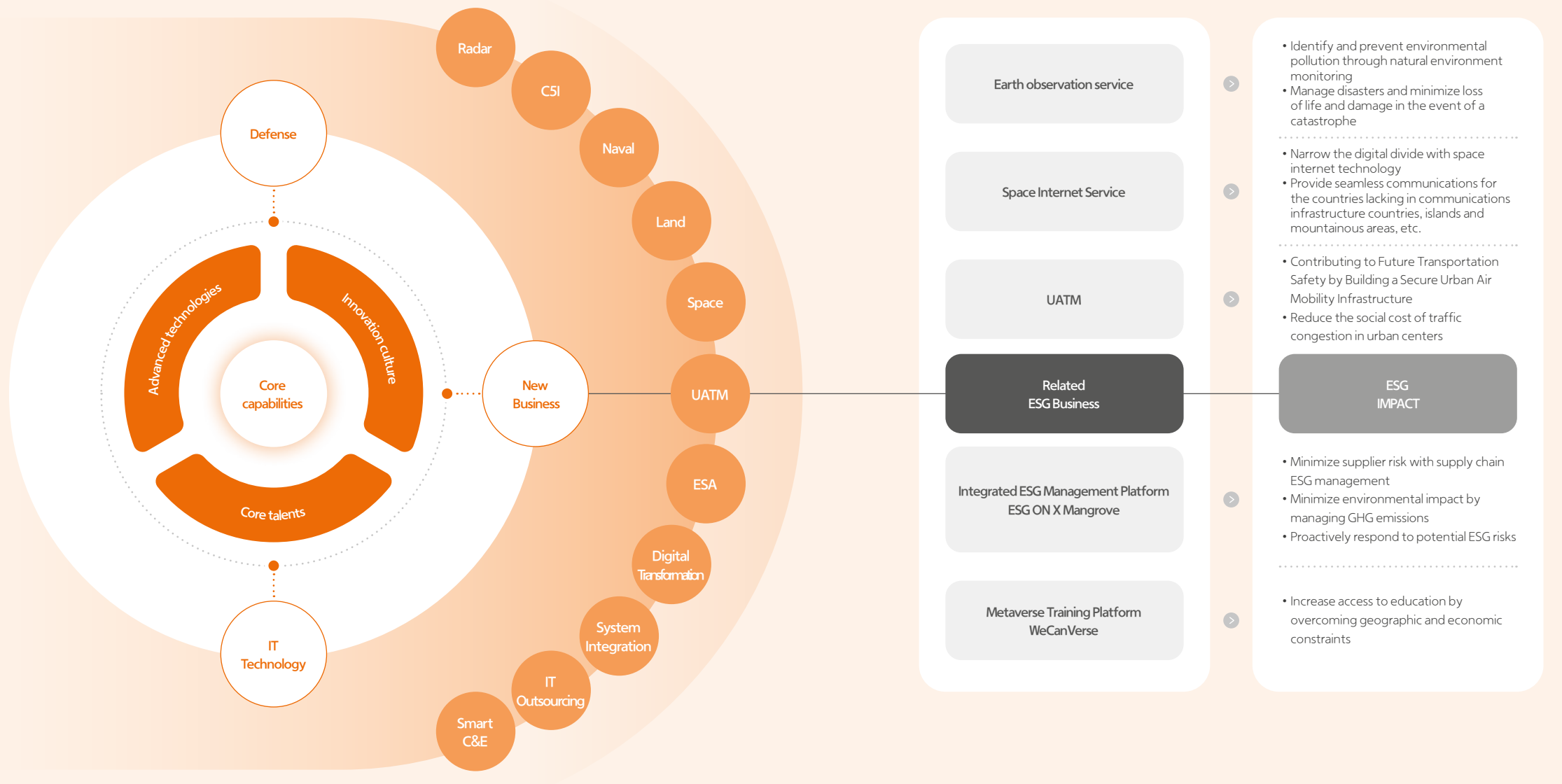
ESG Management

2023 ESG History

- 01** Declared support for the TCFD for climate change response
- 02** Signed MOU with Army Information and Communication School for social contribution cooperation
7.7 billion won in early payments to suppliers for Lunar New Year Holidays
- 03** Signed MOU with Korea National Defense University to collaborate on social contribution activities in the community
- 04** Selected as an 'Outstanding Company for Supporting Military Personnel Employment'
- 05** Signed Metaverse Education Platform Agreement with Kyowon Group
KoDATA and Hanwha Systems signed Agreement to develop Supply Chain ESG Diagnostic Service
- 06** Participated in the acquisition of eco-friendly shipbuilding company 'Daewoo Shipbuilding & Marine Engineering'
- 07** Joined the 'Payment Linkage System Partnership' led by the Ministry of SMEs and Startups
- 08** Hosted a Healing Concert for Workers in Gumi City
- 09** Achieved Korea Fair Trade Commission's Fair Trade Agreement Implementation Evaluation 'Best' and 'Excellent' Rating for 2 Consecutive Years in 'Korea's Win-Win Growth Index'
6.9 billion won in early payments to suppliers for Chuseok holiday
- 10** Sponsored Space Camp hosted by Jeju Education Commission
- 11** Signed Distribution Agreement with OneWeb for Low Earth Orbit Satellite Communications network
- 12** Certified as an "Employer of Choice for Discharged soldiers"
"Signed an MOU with SKT and Tmap for Collaboration on Creating a Future Urban Air Mobility Ecosystem"
Successful development and launch of indigenous small SAR satellite
Achieved 2023 CP Rating of 'AA' from the Fair Trade Commission
Made 11.7 billion won of early payments to suppliers to help them ease their business difficulties
Selected as a Community-Recognized Company by the Ministry of Health and Welfare for Two Consecutive Years
Joined the TCFD Alliance

Connect to the Future

Hanwha Systems is a global total solution company with cutting-edge defense electronics technologies and smart IT technologies. By developing future technologies that can bring more convenience and better safety for both public and private sectors, we have led the innovations to usher in the 4th Industrial Revolution era. With our business encompassing all physical spaces including the air, ground, sea and the space as well as the digital space, we aspire to connect all the humankind thru our hyperintelligence, hyperconnectivity, and hyper-convergence technologies, and provide reliable technologies to protect the nation and its people. For our future business growth, we are committed to reflecting in ESG impacts to create a sustainable future for all stakeholders.



Earth observation service



- Identify and prevent environmental pollution through natural environment monitoring
- Manage disasters and minimize loss of life and damage in the event of a catastrophe

Space Internet Service



- Narrow the digital divide with space internet technology
- Provide seamless communications for the countries lacking in communications infrastructure countries, islands and mountainous areas, etc.

UATM



- Contributing to Future Transportation Safety by Building a Secure Urban Air Mobility Infrastructure
- Reduce the social cost of traffic congestion in urban centers

Related ESG Business

ESG IMPACT

Integrated ESG Management Platform
ESG ON X Mangrove



- Minimize supplier risk with supply chain ESG management
- Minimize environmental impact by managing GHG emissions
- Proactively respond to potential ESG risks

Metaverse Training Platform
WeCanVerse



- Increase access to education by overcoming geographic and economic constraints

Connect to the Future

New Space Solution

Earth observation service

Today, with the rapid increase in disasters and catastrophes caused by climate change, proactive prevention and management through monitoring have become even more critical.

Hanwha Systems's EO-IR and SAR observation satellites can collect images even in bad weather conditions and regardless of day or night times.

In the future, image data collected by observation satellites will be combined with AI technology to provide information for a wide range of fields such as national defense, weather, disasters, land and ocean management, thus offering essential insights for all the people in the world.

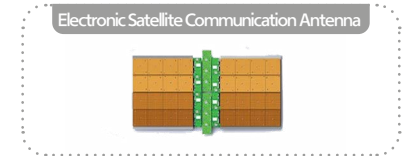
* Synthetic Aperture Radar
** Electro-Optical, Infra-Red



Space Internet Service

Despite the recent rise of "space internet" technology that could bring 5G-LTE-class internet to every part of the planet, 48% of the world's population still lacks access to internet service.

Now Hanwha Systems is developing electronic satellite communication antennas to provide 24-hour stable space internet service from low Earth orbit (LEO) satellites based on its know-how and capabilities accumulated through 20 years of satellite project experiences. Our goal is to implement hyperconnectivity space internet services, which will help enrich people's lives by enabling internet access in remote areas, at sea, and in the air.



Business Progress and Future Plans

- ① Korea's first small SAR satellite built with Korea's indigenous technology was successfully launched
- ② Going forward, ground stations for satellite control will be operated and image data analysis and supply will be made

Business Progress and Future Plans

- ① Signed 'Low Earth Orbit Satellite Communication Distribution and Supply Agreement' with OneWeb to Launch Domestic Service
- ② Registered as facilities-based communications service provider
- ③ Started the development of Space Internet for the government use

ESG IMPACT

Environmental Perspectives

- ① Monitoring and protecting the natural environment by identifying natural disasters, climate change, marine and soil pollution, etc.

Social Perspectives

- ① Topographic mapping, land use change monitoring, urban planning and development, natural resource management, etc.
- ② Provide essential information for disaster management and rescue operations to quickly save human lives and minimize damage in the event of a disaster.

ESG IMPACT

Environmental Perspectives

- ① Minimize environmental impact by conserving resources compared to traditional terrestrial Internet network infrastructure installations
- ② Reduce the burden of installing communication networks (thus reducing raw materials): the cost of maintaining and expanding communication networks (thus reducing environmental pollution during construction); and power consumption (thus saving the energy)

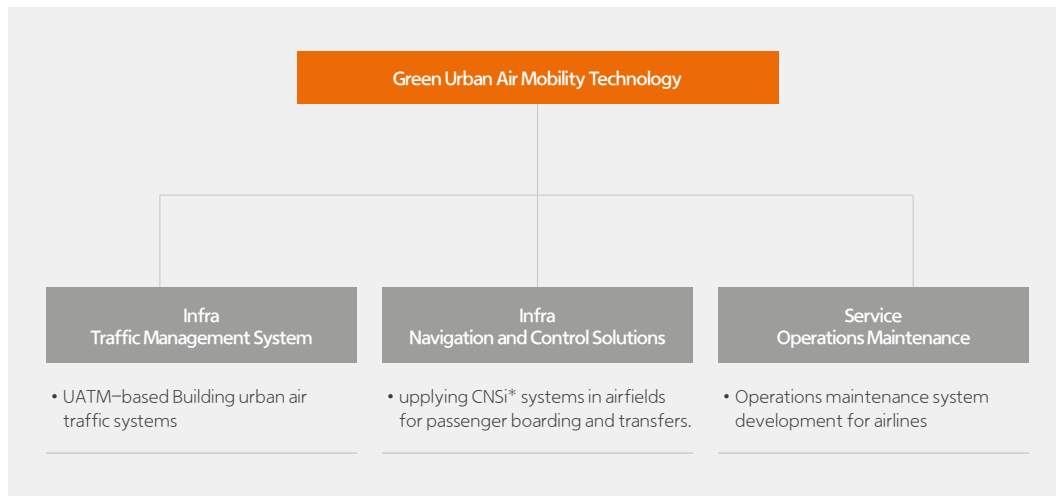
Social Perspectives

- ① Increase internet penetration and digital inclusion in underserved countries and regions to bridge the digital information gap
- ② Provide seamless communications in islands and mountainous areas with poor infrastructure and in emergency situations such as disasters and geopolitical crises
- ③ Efficiently enhance space defense capabilities and space industry competitiveness at the same time in order to give real time basis security assurance for the people and alleviate their security anxiety

Connect to the Future

New Air Solution

Hanwha Systems is pioneering a new concept in the future mobility market by combining its advanced avionics and ICT technology capabilities. Specifically, by building infrastructure and operating services for urban environment safety and traffic control, we aim to become a total solution provider for future mobility.



* Communication, Navigation, Surveillance, and Information.

UATM (Urban Air Traffic Management)

Infrastructure		Service
<p>Landing and Takeoff Facilities</p>	<p>Navigation Safety Control</p>	<p>Ground mobility connective service</p>

Business Progress and Future Plans

Category	Details	Date
K-UAM Dream Team - Ministry of Land	Korean Urban Air Transportation Demonstration Project(K-UAM Grand Challenge)	23.02
K-UAM Dream Team - Gyeongsangnam-do	Driving UAM in the South Coastal Tourism Belt	23.05
Netherlands Aerospace Centre	Cooperate in the development of core technologies related to UAM infrastructure operations and systems	23.06
K-UAM Dream Team - Chungcheongbuk-do Local Government	Promoting ultra-wide UAM business in the Chungcheong region	23.10
Police Human Resources Development Institute	Utilizing UAM for police missions, Develop and train UAM professionals	23.10
Jeju Island	Creating a tourism-type UAM industry ecosystem in Jeju	23.10
K-UAM Dream Team - Gyeongsangbuk-do	Gyeongbuk-type urban air transportation pilot project and commercialization	23.11
K-UAM Dream Team - New World Properties	Promoting UAM commercialization for Hwaseong International Theme Park Complex Development Project	23.11

ESG IMPACT

- #### Environmental Perspectives
- Reducing urban traffic congestion through urban air mobility technology.
 - Contributing to the reduction of air pollutants and greenhouse gas emissions by decreasing the use of internal combustion engine vehicles.

- #### Social Perspectives
- Reduce traffic congestion in urban centers to improve user convenience and reduce travel times
 - Improve local accessibility to foster local economic development and social inclusiveness
 - Improve access to other areas than metropolitan and city centers to boost local economies and promote inclusiveness

Connect to the Future

Integrated ESG Management Platform



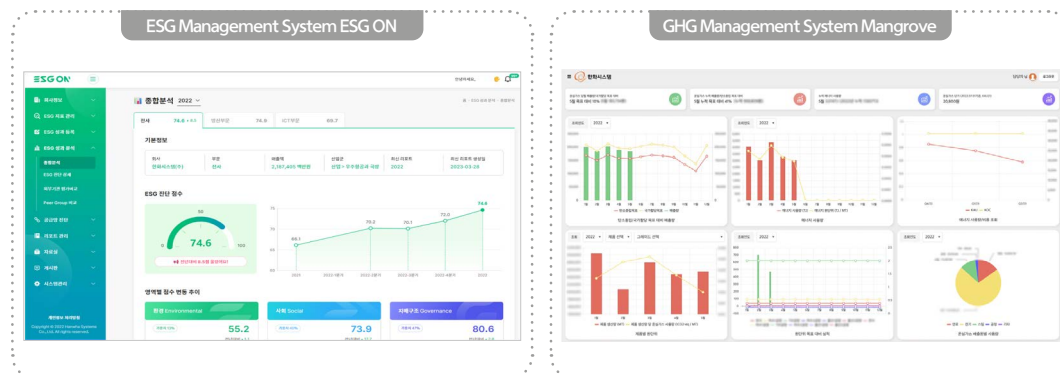
Recently, there has been an increasing demand for disclosure of ESG information, the non-financial performance of companies, as mandatory ESG disclosure has been legislated in the EU. In Korea, disclosure of non-financial information related to sustainability, such as GHG data, is scheduled to be mandatory from 2026. However, the amount of information required by domestic and international rating and disclosure organizations is currently enormous, and the scope of data to be managed is expanding to include consolidated companies, increasing the burden on companies.

In response, **Hanwha Systems** developed the ESG Management System (ESG ON) to internalize ESG management and reduce the difficulty of managing ESG data. ESG ON supports all aspects of ESG management, including ESG disclosure and assessment response, risk management, and supply chain management.

Furthermore, we have developed a specialized solution (Mangrove) for efficient GHG management of enterprises and made it accessible either On-premise or Cloud-based according to the enterprise's environment. Mangrove automatically collects data scattered within and outside the enterprise through IoT* platforms and interfaces to support energy usage and Site/product-level GHG emissions calculation and GHG reduction management functions. Recently, the demand for GHG emission calculation from the perspective of product-level LCA has increased, and we are actively providing services to various companies.

We will continuously endeavor to find a better way to support companies in terms of reducing their pain points related to ESG disclosure by combining **Hanwha Systems'** ICT technology with DT's capabilities.

* Internet of Things



System Key features

ESG ON				Mangrove
ESG Information management	Supply chain ESG diagnostics	ESG Diagnostic Framework	Data Collect	Data integration and linkage with internal and external systems
ESG Performance management			Data Convert/Save	IoT platform-based data collection and monitoring
ESG Valuation and disclosure			Data Processing/Extraction	Support for Site/Product Unit GHG Management
			Data Analytics/Modeling	SageMaker-based Power and Carbon Emissions Forecasting
				Help manage GHG reductions

Application examples

Category	Applicable companies	Details
ESG ON	Hanwha Systems	ESG data management, Supply chain ESG management
Mangrove	Hanwha Solutions	Total Site Management
	OO Healthcare	Product LCAs Management

ESG IMPACT

ESG Overall	Environmental Perspectives	Governance perspective
<ul style="list-style-type: none"> 1 Identify ESG-related business opportunities and align them with the business to support business operations and investment decisions 2 Minimize ESG risks from suppliers with supply chain ESG diagnostics and assessments 	<ul style="list-style-type: none"> 1 Manage GHG emission credit profit and loss through ML/AI-based intelligent functions such as predicting the price of GHG emission credits and the right time to buy and sell 2 Improve operational efficiency through IoT-based carbon emissions data collection and integrated management 	<ul style="list-style-type: none"> 1 Proactively identify and manage internal and external ESG risks to address potential risks early

Connect to the Future

Metaverse Training Platform

Metaverse education platform "WeCanVerse"

Hanwha Systems has developed Korea's first and only 3D-based Metaverse platform by combining its own technologies of artificial intelligence (HAIQV) and blockchain (H-Chain) with extended virtual reality (VR), and Hanwha Systems operates an educational Metaverse platform service for elementary and middle school students.



We signed a business agreement with the Korean Educational Broadcasting System (EBS) in 2021 to develop a public education platform based on Metaverse, and opened the service in October 2023. WeCanVerse integrates all the functions of a learning management system (LMS) required for classroom management, including experiential learning content linked to the public education curriculum.

In particular, we have developed curriculum-linked learning, AI learning activity recommendation, and learning activity data analysis functions, and applied content and services that apply generative AI to the platform. We will continue to support students' self-directed learning and create an inclusive future where they can receive education anytime, anywhere, without education gaps.

Key Performance

Platform Utilization Performance

- Schools utilizing the platform: 200+ schools nationwide
- Platform users: 10,000+ cumulative users
- Platform contents: Approximately 80,000 pieces, including EBS Clips content

*As of December 2023

MOU collaboration

- Signed a business agreement with the School Safety and Insurance Federation to build a school safety net
 - Provided specialized education services for school safety education
- Signed a business partnership agreement with Kyowon Group to build a metaverse-based education platform
 - Implementation of Kyowon Group edu-tech contents and services in WeCanVerse

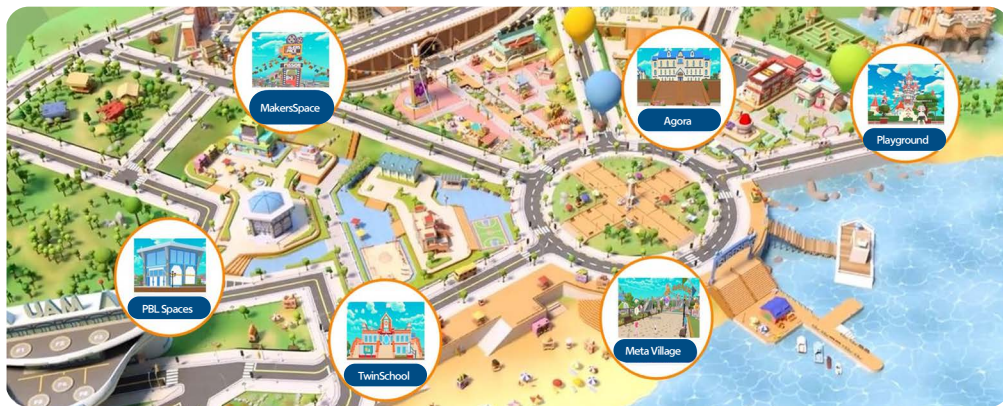
ESG IMPACT

Environmental Perspectives

- 1 Provide geographically unrestricted access to any education platform users from anywhere, thus reduce carbon emissions thru minimized travels by students and teachers
- 2 Utilize virtual resources to save on physical resources (textbooks, pens, etc.)

Social Perspectives

- 1 Increase access to education by overcoming geographic and economic constraints
- 2 Helping close the private education gap by providing inclusive education (specializing in language) for foreign-born and multicultural families
- 3 Track and manage trainees' learning activity data to improve learning effectiveness
- 4 Reduce private education costs by utilizing online education platform



MakersSpace

- Learner content creation space
- Webtoon, Live Studio

Agora

- Large lecture spaces
- Provide a study group room

Playground

- Edutainment space
- Space for creative games

PBL Spaces

- Problem-based learning spaces

TwinSchool

- Metaverse Classroom
- Circles, workshops, and labs







Meta Village

- Provide LMS-aligned learning
- Spatially centered experiences

Our Approach to Sustainability

Stakeholder Communications

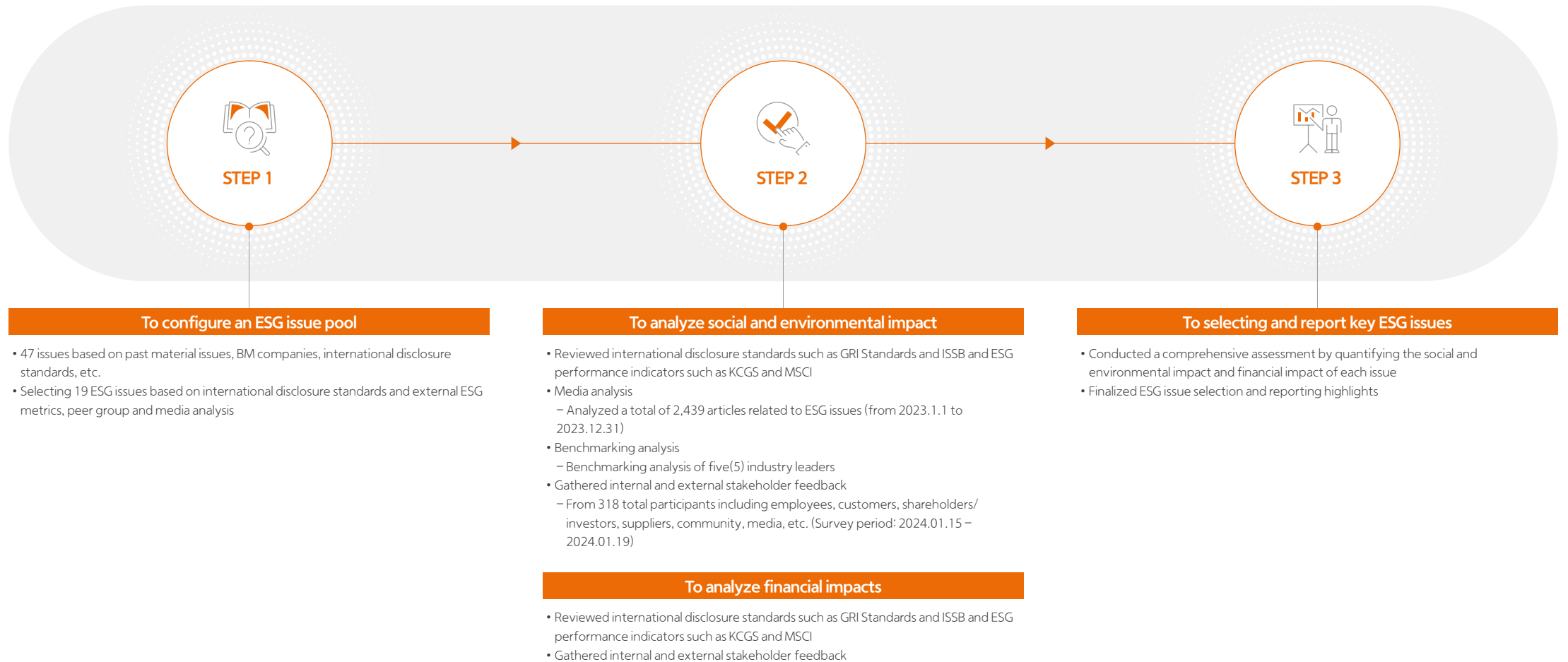
Hanwha Systems has defined its key stakeholders as customers, government, suppliers, shareholders and investors, communities, and employees, who are directly and indirectly affected by its business activities, and actively communicates with them through various communication channels to effectively reflect their diverse needs in the business activities and ESG strategy.

Identifying stakeholders	Key concerns	Key communication channels	Hanwha Systems' responses
 <p>Customers</p>	<ul style="list-style-type: none"> • Product quality and performance • Prevention of customers' private information leakage • Corporate social and environmental responsibility 	<ul style="list-style-type: none"> • Customer service and call centers • Sustainability Report • Service satisfaction survey • Hanwha Systems Newsletter 	<ul style="list-style-type: none"> • Hanwha Systems' company websites and SNS Channels • "Doctor Service" (visit on demand and call center) • Technical support for new equipment and training for military unit operators <p>Continuously engaging with customers by providing the highest quality products, the best service and solutions, and enhancing customer satisfaction through follow-ups</p>
 <p>Government</p>	<ul style="list-style-type: none"> • Corporate social and environmental responsibility • Paying taxes in good faith • Transparent disclosure • Achieving carbon neutrality 	<ul style="list-style-type: none"> • Joining and participating in academic societies and associations • Policy roundtables • Disclosure by DART (Data Analysis, Retrieval and Transfer) System • Participating in government-led collaborative projects and agreements 	<p>Creating economic value based on the principles of fair trade, transparent tax payment and corporate disclosure</p>
 <p>Suppliers</p>	<ul style="list-style-type: none"> • Fair trade • Support for ESG capacity building • Strengthening technical collaboration • Support for operation funding 	<ul style="list-style-type: none"> • Shared growth Partnership Academy • Purchasing-Quality-Technology Exchange Meetings • Supplier's Day event • Suppliers' Shared Growth Partnership Meeting, Shared Growth Day 	<ul style="list-style-type: none"> • Government costing discussion meetings • Supplier VOCs <p>Creating a shared growth ecosystem based on fair trade practices and close communication with suppliers</p>
 <p>Shareholders and Investors</p>	<ul style="list-style-type: none"> • Financials • Business planning and performance • ESG management activities 	<ul style="list-style-type: none"> • Business Reports • Corporate Governance Report • Sustainability Report • General Shareholders' Meeting 	<ul style="list-style-type: none"> • Regular and ad-hoc management disclosures • Investor meetings • IR meetings • Hanwha Systems' company website <p>Enhancing shareholder and investor values through sharing business performance, ESG issues, risk management, and management information</p>
 <p>Communities</p>	<ul style="list-style-type: none"> • Connecting with local communities • Cultivating future talent • Revitalizing local economies • Biodiversity conservation • Minimizing local ecosystem pollution 	<ul style="list-style-type: none"> • Supporting military personnel's growth • Career mentoring for military personnel • Running regular discussion channels with local community • Helping communities that suffer from flood/heavy rains • Organizing Love-share-kimchi-making and bread-sharing events 	<p>Contributing to revitalizing the local community's economy and protecting the environment, and actively participating in social contribution activities for military personnel and veterans as well as other underprivileged groups</p>
 <p>Employees</p>	<ul style="list-style-type: none"> • Increasing diversity and inclusiveness • Creating a quality workplace • Systematic training programs • Fair performance reviews and rewards • Ensuring basic rights and job security at the workplace 	<ul style="list-style-type: none"> • Regular management meetings • Management briefing • New hire mentoring, on-boarding programs • Workers' Committee • Labor-Management Councils/Occupational Safety and Health Committee • Labor union (annual wage negotiations, biannual collective bargaining agreements) • Tech blogs on internal bulletin boards • IT Academy • Employee newsletter, Kiosk Letter • Leadership coaching and job skill enhancement programs 	<ul style="list-style-type: none"> • Academic Training Program • Global Talent Program • Blue Board for organizational culture improvement • Operation of learning organization • Communication Camp, Culture Class • Personalized outplacement services to support retirees • Operate online and offline reporting channels • Enhancing online communication means (exchange of letters among employees and sharing main news at the company, etc.) • Regular employee-management meetings at the entire company level and by Business Unit • Activities to cultivate organizational cultures like "healing gardening" • Appoint a counselor by each site <p>Creating a culture of respect for human rights based on diversity, inclusiveness, and equal opportunity, and running communication channels for employees' continuous growth</p>

Our Approach to Sustainability

Dual Materiality Assessment

Hanwha Systems conducted a dual materiality assessment to identify issues that have a material impact on the overall business activities and to seek responses to each issue. The materiality assessment was based on the 'Materiality' principle of the Global Reporting Initiative (GRI) Standards, a global sustainability reporting guideline, and applied the dual materiality concept proposed by the European Sustainability Reporting Standards (ESRS). The dual materiality assessment considers not only the potential for financial impacts on the company but also external social and environmental perspectives related to sustainability. Hanwha Systems came up with an assessment methodology that meets global disclosure standards and followed a three-step process, including organizing ESG issue pools, analyzing social and environmental and financial impacts, and selecting and reporting key issues. First, we organized a pool of 47 issues and prioritized them through media analysis, benchmarking with global leading companies, internal and external stakeholder surveys, and international standards scoring.



Our Approach to Sustainability

Dual Materiality Assessment

Dual Materiality Assessment Results

Hanwha Systems derived 12 priority issues from a total of 47 ESG issues based on the combined social and environmental and financial impact of the dual materiality assessment in 2023. In addition, among the 12 priority issues, 'Addressing climate change', 'Strengthening site safety and safety management', 'Supplier support and sustainability management', 'Human resource development and talent management', and 'Compliance and ethics management', were selected as material issues.

+ Positive - Negative ●●● High ●●○ Mid ●○○ Low

Areas	ESG issues	Details	Impact attributes Positive/Negative	Materiality		Double Materiality
				Environmental and social impact	Financial impact	
Environment	Addressing climate change	Contributing to carbon neutrality by addressing climate change through managing GHG emissions and energy efficiency at sites	+	●●●	●●●	●●●
		Physical risks and damages caused by climate change, including extreme weather events such as heat waves, floods, and wildfires	-			
	Sustainable product and technology development	Enhancing environmental regulatory responsiveness through green product management and the introduction and development of green, high-efficiency technologies	+	●○○	●●○	●○○
		Failure to invest in green technologies and R&D increases national carbon emissions and reduces market competitiveness	-			
Social	Strengthening site safety and health management	Preventing serious accidents through operating safety and health management system and building a safe site	+	●●●	●●●	●●●
		Lack of health and safety management system increases risk of employee health and safety incidents and delays factory operations	-			
	Supplier Support and Sustainability Management	Building a shared growth ecosystem and strengthening trust by supporting supply chain's sustainability capabilities	+	●●●	●●○	●●○
		Supply chain instability and lack of trust due to poor management of suppliers	-			
	Product Safety-Enhance quality control and accountability	Increasing brand credibility and customer satisfaction through systematic QSM operations	+	●●○	●○○	●●○
		Loss of customer trust and reputation due to product failures such as malfunctions and underperformance	-			
	Promoting diversity and inclusiveness	Increasing diversity and inclusiveness to drive cultural transformation and enhance corporate reputation	+	●●○	●●○	●●○
		Decreased workplace creativity and productivity due to lack of diversity and inclusiveness activities	-			
	Human resource development and talent management	Attracting talent and increase productivity through on-the-job training and systemic career-related learning opportunities	+	●●●	●●●	●●●
		Decreased employee motivation leads to lower efficiency and increased risk of talent drain	-			
Protecting stakeholder human rights	Creating a quality work environment by fostering a human rights management culture	+	●○○	●○○	●○○	
	Reputational damage and costly violations of applicable regulations due to inadequate human rights management responses	-				
Conducting strategic CSR activities	Promoting the welfare of local communities and fostering future talent through contributory social contribution activities	+	●○○	●○○	●○○	
	Corporate reputation and brand value suffer as a result of corporate social responsibility failures	-				
Governance	Establishing sound governance	Transparent and sound corporate governance improves financial performance and enhances shareholder value	+	●●○	●●○	●●○
		Weakened oversight of management and controlling shareholders and reduced board effectiveness	-			
	Compliance and ethics	Preventing compliance violations by building ethics and compliance organizations and processes	+	●●○	●●●	●●●
		Non-compliance can damage corporate reputation and harm customers	-			
Strengthening information security and privacy	Preventing corporate and customer harm through information security management systems and security incident response processes	+	●○○	●○○	●○○	
	Poor information security management leads to customer data breaches, harm, and loss of trust	-				

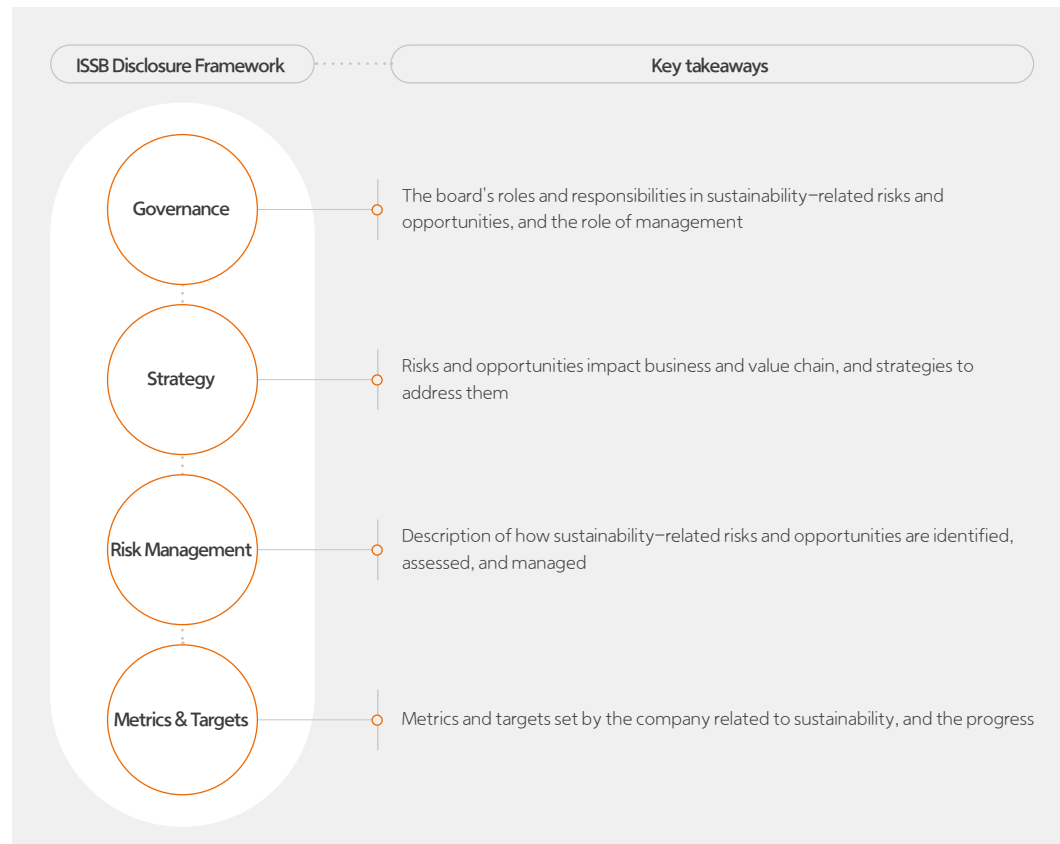
Our Approach to Sustainability

Dual Materiality Assessment

ESG Material Issue Management Framework in 2023

The needs of stakeholders such as shareholders, investors, and communities are rapidly changing in line with global ESG trends, and the importance of timely issue identification and management is increasing. Accordingly, **Hanwha Systems** identifies risks and opportunities by key issues and manages them in alignment with the ESG Strategy Framework. We also utilize the International Sustainability Standards Board's (ISSB) Disclosure Standard Framework¹⁾ for the top five issues to transparently disclose our issue management system, response strategies, and performance.

1) Governance, Strategy, Risk Management, Metrics & Targets

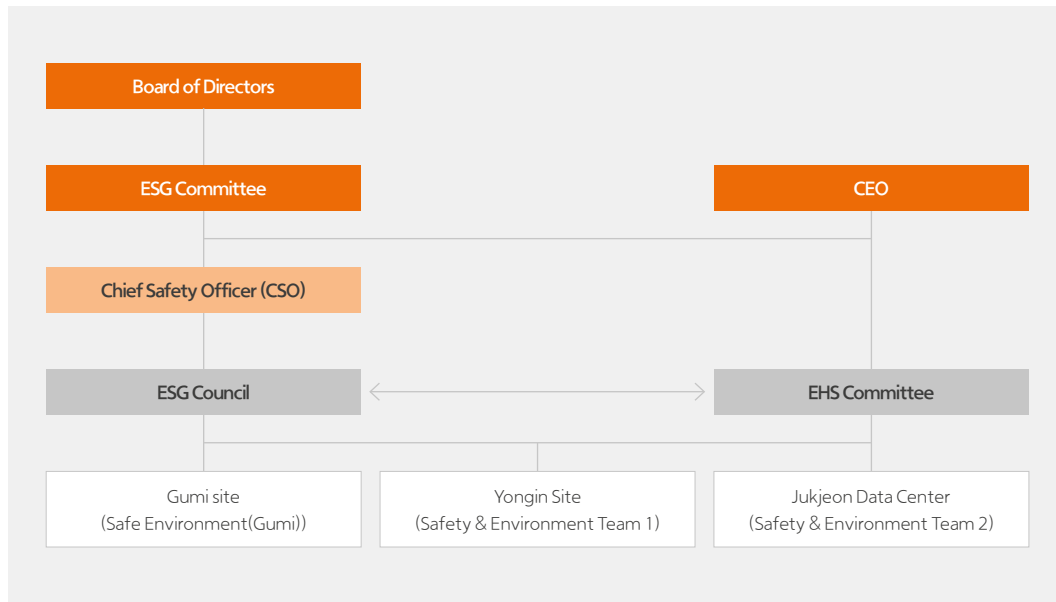


Our Approach to Sustainability

Material Issue ① Addressing Climate Change

Governance

Hanwha Systems recognizes the impact of climate change on communities and natural ecosystems, and has established governance engaging the Board of Directors, ESG Committee, and dedicated working groups to effectively respond to climate change.



Board and subcommittee roles

At Hanwha Systems, its BOD and ESG Committee, a subcommittee of the Board of Directors comprised of all outside directors, are tasked to deliberate on important issues related to climate change response, and make decisions. The Board of Directors regularly reviews the performance and future plans related to climate change response once a quarter, and the ESG Committee takes climate change-related issues into consideration when investing in eco-friendly businesses or developing eco-friendly products. In addition, the ESG Committee is responsible for establishing corporate-wide ESG strategies and policies, monitoring ESG activities, and reporting to the Board of Directors.

ESG Committee Sub-Organizational Roles

Hanwha Systems has organized the Safety Management Office under the ESG Committee to establish strategies for environment and climate change response and report major issues to the ESG Committee. In addition, the ESG Council was formed to ensure that safety and environmental performance is systematically managed. The ESG Council regularly compiles environment-related performance and issues and reports them to the Safety Management Office(CSO), who is in charge of environmental affairs. Furthermore, the ESG Council analyzes the company's policies on domestic and global climate change and changes in the global market as determined by the Board of Directors, and identifies possible risks in advance to manage the company's environment-related issues. Lastly, the Safety & Environment Team at each site identifies climate change response issues and detailed implementation tasks based on the ESG Council and corporate-wide ESG management promotion direction, and manages and oversees climate change response goals and implementation performance, such as climate change response measures and energy reduction, for each site.

Linking Climate Change-related Performance Evaluation and Compensation

Hanwha Systems reflects environmental performance indicators in the performance evaluations of executives and the Safety Management Office(CSO), who is in charge of safety and environment, in order to enhance the execution of climate change response and improve accountability. For example, the personal KPIs for the heads of research centers, divisions, and sites include quantifying and evaluating the amount of wastewater reduction, managing air pollution emission standards below 30%, maintaining a recycling rate of 95% or more, and reducing GHG by 5% year-on-year compared to the previous three years and all the results are reflected in measuring incentive.

Our Approach to Sustainability

Material Issue ① Addressing Climate Change

Governance

Detailed roles in alignment with climate change governance

Category	Responsibilities and Roles
Board of Directors	<ul style="list-style-type: none"> Final deliberation and vote on environmental and climate change issues Environment and safety performance review
ESG Committee	<ul style="list-style-type: none"> Deliberating on policies and activities related to the environment, climate change and carbon neutrality Establishing corporate-wide ESG strategy and policy Reporting to the board on deliberations
Safety Management Office(including CSO)	<ul style="list-style-type: none"> ESG Committee Reporting for Environment and Climate Change Key Issues Building an environmental and climate change strategy
ESG Council	<ul style="list-style-type: none"> Identifying environmental and climate change issues and action items Managing and overseeing climate change action goals and performance Gathering feedback on key environmental and climate change Issues
Each Site Safety & Environment Team	<ul style="list-style-type: none"> Identifying/managing environmental risks associated with Site operations Identifying and operating detailed environmental initiatives at each Site

Top environmental and Climate Change Agenda Items for the Board in 2023

Date	Agenda items	Approvals	Attendance rate
Feb. 23, 2023	<ul style="list-style-type: none"> Resolution: establishment of the 2023 Safety, Health, and Environment Plan 	Approved	100%
June 22, 2023	<ul style="list-style-type: none"> Report: publication of the 2023 Sustainability Report Report: major ESG achievements in the first half of 2023 and plans for the second half of the year 	-	100%
September 4, 2023	<ul style="list-style-type: none"> Report: ESG Q3 Highlights and Q4 Plans 	-	100%
December 18, 2023	<ul style="list-style-type: none"> Report: 2023 Domestic ESG Assessment Results Report: 2023 ESG management evaluation results Report: 2024 ESG goal establishment 	-	100%

Strategy

Despite not being a mandatory reduction site for the GHG Target Management System, Hanwha Systems has established its own mid- to long-term strategy to reduce GHG emissions by 30% compared to BAU in 2040. To this end, we have established an Environmental Management Strategic Framework and are systematically managing nine detailed tasks based on the three goals of 'Addressing Climate Change and Carbon Reduction', 'Pollution Reduction Activities', and 'Establishment of Environmental Management System'. In addition, we have been participating in the TCFD Alliance since December, 2023, and are working to fulfill our corporate roles and responsibilities for climate change by participating in various climate change working groups that fit our business characteristics

Environmental Management Strategic Framework



Climate change risk factors

Hanwha Systems identifies physical and transition risks based on TCFD guidelines. The IPCC's 6th report presents climate change scenarios based on the intensity of radiative forcing to be determined by carbon dioxide concentration level at the Earth's surface in 2100 as well as associated future societal and economic changes. Among them, the report selected two scenarios to analyze the impact of physical risks: the SSP5-8.5 scenario (4.4°C increase in global temperature in 2100 compared to pre-industrial levels due to heavy use of fossil fuels and reckless expansion of development) and the SSP2-4.5 scenario (2.7°C increase), which assumes a moderate level of climate change mitigation and socioeconomic development. For transition risks, we analyzed scenarios such as IEA STEPS (Stated Policy Scenario) and IEA NZE 2050 (Net Zero Emissions by 2050). In addition, we reflected management activities for climate change risks in the risk management process through internal and external expert reviews and linked them to climate change response strategies.

Our Approach to Sustainability

Material Issue ① Addressing Climate Change

Strategy

Risk types	Identified risks in detail	Potential financial impacts	Response status	Impact Level			
				Short-term	Mid-term	Long-term	
Physical Risk	Acute	Increase in large-scale natural disasters resulting in facility damage, production disruptions, and service interruptions	<ul style="list-style-type: none"> Human and material losses due to building damage and equipment failure caused by typhoons, heavy rains, abnormally high temperatures, etc. Financial losses due to delays in procurement and delivery of raw materials 	<ul style="list-style-type: none"> Conducting situational emergency response drills to prepare for disaster 	● HIGH	● HIGH	● HIGH
	Chronic	Increasing power costs for cooling/heating systems in data centers and manufacturing sites due to global warming and climate change	<ul style="list-style-type: none"> Increasing cooling costs as average temperatures rise 	<ul style="list-style-type: none"> Monitoring energy management and drive energy savings 	● MID	● HIGH	● HIGH
Transition Risk	Policies and laws	Carbon taxes, carbon credits, and other regulations to achieve net zero are driving up the price of carbon	<ul style="list-style-type: none"> Increasing investment costs to reduce GHGs at site 	<ul style="list-style-type: none"> Driving process and facility efficiencies 	● LOW	● MID	● HIGH
		Increasing cost of purchasing emission allowances due to increased power consumption and fluctuating emission allowance prices	<ul style="list-style-type: none"> Increased investment costs due to introduction of carbon reduction facilities 	<ul style="list-style-type: none"> ISO 50001 certification and maintenance Enhanced IoT-based monitoring 	● LOW	● LOW	● MID
		Increasing need to respond to international regulations (e.g., Carbon Border Adjustment Mechanism, EU ESR, etc.) and domestic policy demands	<ul style="list-style-type: none"> Fines and increased operating costs due to restrictions and actions taken against businesses for carbon emissions and failure to address climate change 	<ul style="list-style-type: none"> Monitoring domestic and international ESG-related trends and regulations to proactively manage risk and develop response strategies 	● LOW	● MID	● MID
		Risk of legal sanctions against non-compliance with environmental laws, etc.	<ul style="list-style-type: none"> Financial losses such as penalties and fines imposed by governments and municipalities due to pollutant emissions 	<ul style="list-style-type: none"> Strengthening ongoing environmental monitoring systems, including developing a chemical material management system 	● LOW	● LOW	● MID
	Technology	Increased technology investments in high-efficiency equipment, self-generation, and new technology solutions	<ul style="list-style-type: none"> Increasing R&D costs to develop low-carbon, high-efficiency technologies 	<ul style="list-style-type: none"> Proactive expansion of green initiatives such as ESG ON, Mangrove, UAM, etc. 	● HIGH	● HIGH	● HIGH
	Market	Failure of growth engines such as future new businesses, lower revenue, and lost investment in technology development	<ul style="list-style-type: none"> Increasing investment costs for future new business and technology development 	<ul style="list-style-type: none"> Proactively expanding eco-friendly businesses such as UAM for mid- to long-term business growth, including services for the community and renewable energy generation by leveraging ICT technology capabilities 	● HIGH	● HIGH	● HIGH
		Failed green initiatives erode customer trust and lead to customer churn	<ul style="list-style-type: none"> Losses due to investment restrictions and lost customers 	<ul style="list-style-type: none"> Expanding green purchasing and continuing supply chain ESG management activities 	● LOW	● MID	● HIGH
Reputation	Potential for poor relationships with stakeholders, including investors, and negative feedback	<ul style="list-style-type: none"> Increased credit risk (procurement costs) due to diminished corporate reputation 	<ul style="list-style-type: none"> Disclosing climate change progress based on the TCFD framework 	● MID	● MID	● HIGH	

* Time Horizons
 Short Term: 2023-2025 (3 years) / Mid-term: 2026 to 2030 (5 years) / Long Term: 2031 to 2050 (20 years)

Our Approach to Sustainability

Material Issue ① Addressing Climate Change

Strategy

Climate change scenario analysis

To analyze the mid- to long-term financial impacts of climate risk, **Hanwha Systems** conducted a physical risk scenario analysis for 'Increased cooling costs due to rising average temperatures.' While rising average temperatures can have various direct and indirect effects, such as flooding of facilities due to rising sea levels and decreased sales due to lower productivity, this scenario analysis only considered the financial implications of increased cooling costs. The cooling costs were calculated based on the electricity usage of major sites, including the Gumi site, Yongin R&D Center, Jukjeon Data Center, Pangyo R&D Center, and Daejeon site.

The purpose of climate change scenario analysis is not to accurately predict the future situation, but to understand the possible future situation and derive appropriate implications and responses. Furthermore, since climate scenario analysis is based on hypothesis, we recognize its uncertainties and limitations. Therefore we will continue to expand the scope of climate scenario analysis and further enhance its methodology.

Scenario Analysis Methodology

The scenario analysis was conducted using the Korea Meteorological Administration's South Korea Detailed Climate Change Scenario¹⁾, which applies statistical elaboration techniques based on the Shared Socioeconomic Pathways (SSP), the most recent scenario adopted from the IPCC AR6 WGI report. Considering the impact level of telecommuting due to Covid-19, **Hanwha Systems** used the arithmetic average of the cooling degree days²⁾ for the past four years (2020~2023) for each city, county, and district where the site is located as the historical cooling degree days. Based on this, the projected cooling degree days by city, county, and district under SSP2 4.5 and SSP5 8.5 scenarios were subtracted from the historical cooling degree days to calculate the expected increase in future cooling electricity usage by 2050. The financial impact was calculated by multiplying the projected future electricity price by the projected future increase in cooling electricity usage based on the average electricity unit price for the past four years (2020~2023) and considering the average annual increase in electricity prices (general and industrial) for the past 20 years. In addition, we converted the expected increase in future electricity bills into present value using the mid- to long-term inflation rate forecast published by the National Assembly Budget Office.

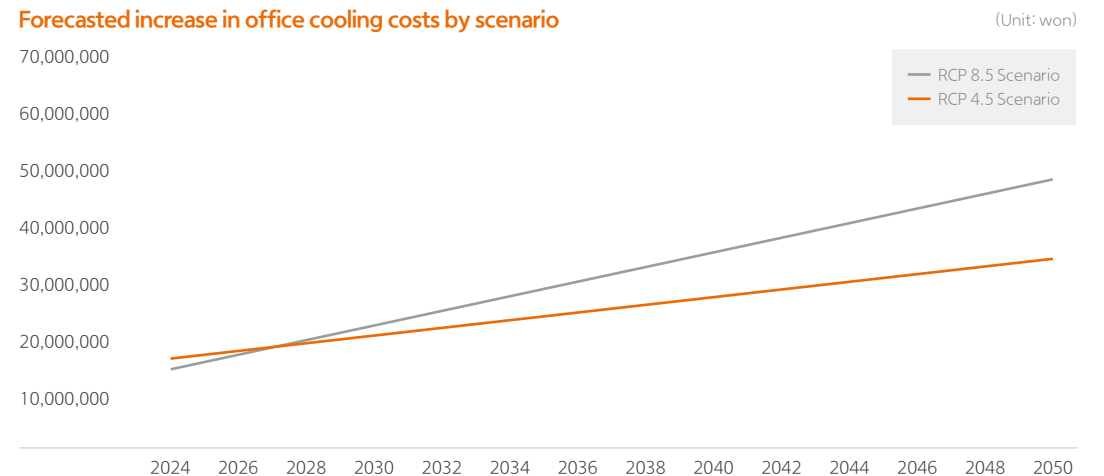
1) High-resolution South Korean climate change scenario based on global climate change scenarios calculated through the Coupled Model Intercomparison Project Phase 5 (CMIP5) international business standard experimental system
 2) the cumulative value of the difference between the daily average temperature and the appropriate temperature (Hanwha System defines it as 24°C to perform scenario analysis)

Category	Scenario description	Expected temperature rise
SSP2-4.5	Assuming that renewable energy technology advances will minimize fossil fuel use and lead to environmentally sustainable economic growth.	Estimated global average annual temperature rise by the end of the 21st century at 1.9° C
SSP5-8.5	Assuming high fossil fuel use and irresponsible urban development with rapid advances in industrial technology.	Estimated global average annual temperature rise by the end of the 21st century to be between 5.2

Scenario Analysis Results

As a result of scenario analysis, the increase in cooling costs due to an increase in average temperature from 2024 to 2050 based on SSP5 8.5 scenario is approximately KRW 400 million, which is 0.2% of Selling General & Administrative Expenses among financial statement items in 2023, indicating that the financial implications of the 'Increase in cooling costs due to an increase in average temperature' risk are low. Nevertheless, to minimize the impact of this risk in the long term, **Hanwha Systems** will promote building design considering energy efficiency and continuously review energy use reduction tasks through monitoring of energy use status.

Forecasted increase in office cooling costs by scenario



Our Approach to Sustainability

Material Issue ① Addressing Climate Change

Strategy

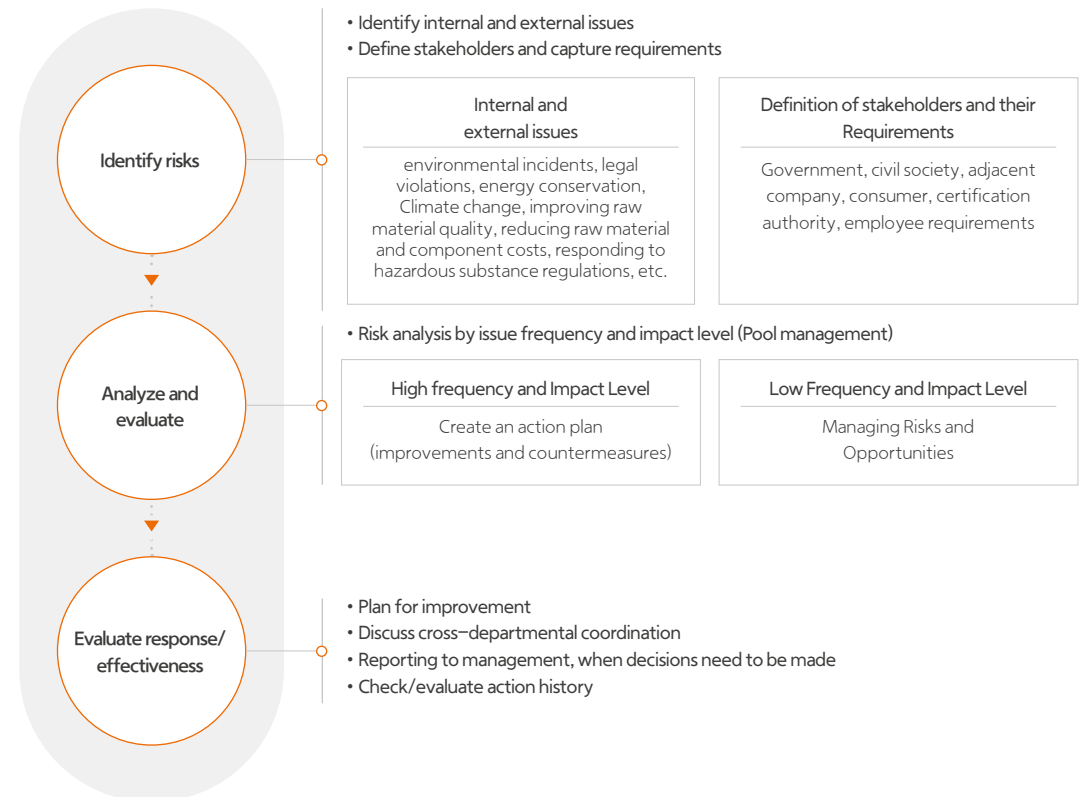
Climate change opportunities

Hanwha Systems recognizes climate change as a strategic opportunity to create new markets and businesses, not just as a risk management area. Especially in Korea, given the relatively carbon-intensive manufacturing-based industrial structure, we need to take a leap forward by transitioning to a business that considers eco-friendly technologies and resource efficiency. To this end, we are exploring solutions to the underlying causes of climate change and devising eco-friendly innovative technologies and new business models to shape our future business.

Category	Type	Potential financial impacts	Impact Level		
			Short-term	Mid-term	Long-term
Climate change product development • Urban air mobility (UAM) projects • Low Earth orbit (LEO) satellite projects (Earth observation service)	Products and services	<ul style="list-style-type: none"> Increased revenue from demand for climate change-friendly products and services Increased competitiveness as consumers, governments, and other stakeholders favor green products and services Increased access to capital and improved reputation for low-carbon companies 	MID	HIGH	HIGH
Renewable energy generation business	Energy resources and resiliency	<ul style="list-style-type: none"> Lower operating costs Reduced exposure to rising fossil fuel prices Reduced sensitivity to changes in carbon costs 	MID	HIGH	HIGH
Eco-friendly Service/Solution Business • Renewable Energy Production Management System (MES) • Carbon Emissions Management Solution (Mangrove) • Microgrid System	Resource efficiency	<ul style="list-style-type: none"> Reduced operating costs due to improved energy efficiency Reduced operating costs at the site, increased profits due to efficient production, and increased value of fixed assets 	LOW	MID	HIGH

Risk Management

To minimize climate change-related losses based on rational decision-making, Hanwha Systems integrates and manages climate risks based on the Corporate risk system. Risks and opportunities identified by the risk and opportunity management process are registered and managed in the internal management system, and a regular assessment of each risk and opportunity factor is conducted once a year. Furthermore, we are establishing action plans and targets in consideration of the frequency and Impact Level of each factor, and carrying out improvement activities accordingly. In addition, we report the results of our actions to the Board of Directors at least once a year, and through this, we are establishing strategic and financial plans that incorporate climate risk factors.

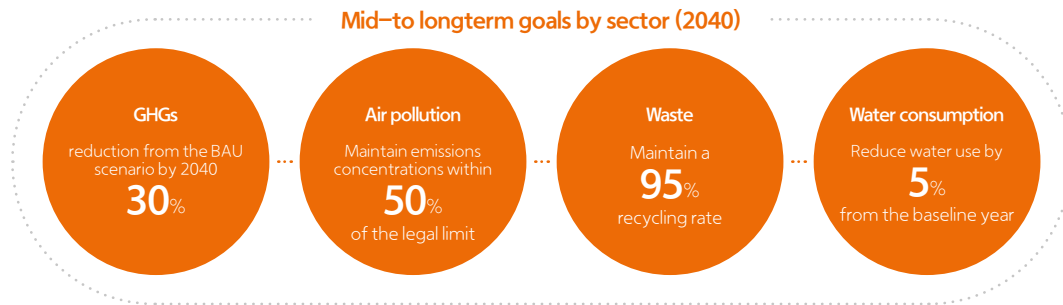


Our Approach to Sustainability

Material Issue ① Addressing Climate Change

Metrics and Goals

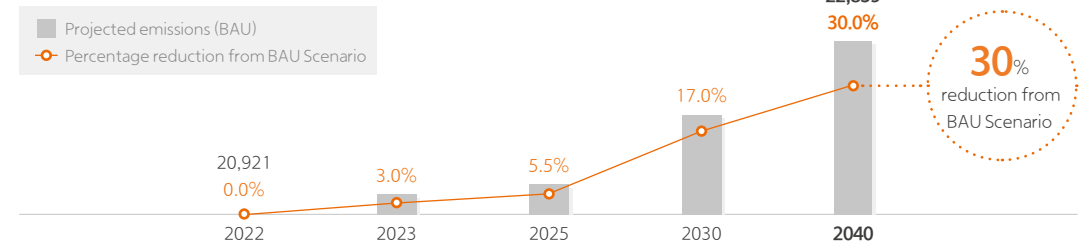
In order to actively respond to climate change, Hanwha Systems has set Environmental Management as its ESG management policy and established detailed tasks to implement it, such as promoting eco-friendly future business and improving DT-based energy efficiency. Furthermore, we have established a detailed plan to reduce GHG emissions every year and are striving to reduce energy use through carbon reduction activities, such as replacing electric lights with high-efficiency LEDs and reducing energy consumption. In addition, we manage ESG-related indicators on a quarterly basis and report our activities and performance to the Board of Directors for systematic management.



Key initiatives and goals

Build an integrated energy management system <ul style="list-style-type: none"> Certification of intelligent buildings and energy efficiency ratings when building new sites 	Manage green building certification and operations <ul style="list-style-type: none"> Achieve green building and energy efficiency ratings Reduce GHGs and save energy 	Expand access to renewable energy <ul style="list-style-type: none"> Solar renewable energy installations on site
Build a green data center <ul style="list-style-type: none"> Drive green data center construction when building new data centers 	Improve energy efficiency <ul style="list-style-type: none"> Evaluate low-efficient facilities to make high-efficient equipment 	Raise employee mindset <ul style="list-style-type: none"> Conduct environmental campaigns (reducing standby power, discovering GHG-reducing items, etc.)
Reduce waste <ul style="list-style-type: none"> Implement zero waste campaigns, identify waste reduction items, and reduce leftovers 	Reduce air pollution <ul style="list-style-type: none"> Improve air pollution prevention facilities and implement low-emission changes 	Reduce water usage <ul style="list-style-type: none"> Identify reusable items and run water reduction campaigns

2040 GHG Reduction Targets (Medium to Long Term Roadmap)



Performance against targets for climate change-related metrics

Category	Unit	2023 Goals	2023 Performance
GHG emissions	tCO ₂	23,804	22,006
Energy usage	TJ	492.2	457.5
Air pollutants	-	30% or less of the emission allowance	30% or less of the emission allowance
Waste emissions	Ton	299	254.9
Water usage	Ton	97,452	104,524

Unit performance by climate change-related metrics

Category	Unit	Performance in 2021	2022 Performance	2023 Performance
GHG emissions	tCO ₂ /KRW 100 million	0.94	0.96	0.90
Energy usage	TJ/KRW 100 million	0.019	0.020	0.019
Air pollutants (dust)	kg/KRW 100 million	0.002	0.001	0.002
Air Pollutants ¹⁾ (Nitrogen Oxides, NOx)	kg/KRW 100 million	-	-	0.007
Air pollutants ¹⁾ (Sulfur Oxides, SOx)	kg/KRW 100 million	-	-	0.002
Waste emission	Ton/KRW 100 million	0.012	0.012	0.010
Water usage	Ton/KRW 100 million	4.64	4.24	4.26

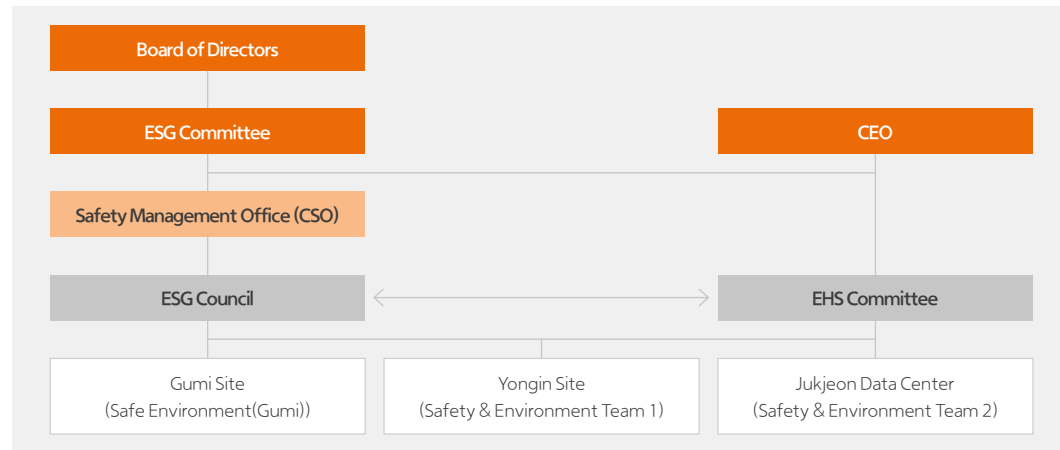
1) Data maintained since 2023

Our Approach to Sustainability

Material Issue ② Strengthening Site Safety and Health Management

Governance

Hanwha Systems has organized and operated the EHS Committee with the goal of creating accident-free and injury-free sites and has been promoting the health and safety of employees. The Committee regularly checks the establishment and implementation of safety and health plans in accordance with the corporate safety management policy on an annual basis, and deliberates on the adequacy of dedicated organizations and personnel, budgeting, and execution. In addition, major issues and plans related to safety and health discussed in the Committee are presented to the Board of Directors' meetings for deliberation and resolution. The ESG Council also manages safety and health performance of each site and identifies issues on a monthly basis. And it reports them to the Safety Management Office, which in turn reports related major issues to the ESG Committee.



Detailed roles defined by each health and safety governance entity

Category	Responsibilities and roles
Board of Directors	<ul style="list-style-type: none"> Final deliberation and vote on health and safety issues Health and Safety Performance Review
ESG Committee	<ul style="list-style-type: none"> Deliberate on health and safety policies and activities Reporting to the board on deliberations
Safety Management Office(CSO)	<ul style="list-style-type: none"> Health and Safety Key Issues Reporting to the ESG Committee Creating a health and safety response strategy
ESG Council	<ul style="list-style-type: none"> Identifying health and safety response issues and action items Managing and overseeing health and safety goals and performance Top Issues and Feedback by Site
Site Safety & Environment Team	<ul style="list-style-type: none"> Identifying and managing health and safety risks related with Site operations Planning and implementation management of safety and health by Site

Strategy

Based on ECO-YHES, the Hanwha Group's safety, health, and environment policy, Hanwha Systems has established a safety management policy approved by the CEO to create a safe working environment and minimize environmental impact. Based on this, we have established and operated a safety, health, and environment management system to prevent environmental accidents and serious accidents. In addition, we have selected key tasks in the field of safety and health in accordance with the S.H.E Strategic Framework, and the performance management of each task is reviewed by the Chief Safety Officer(CSO) on an annual basis and reported to the CEO.



Risk Management

With the recent increase in stakeholders' interest in safety and health, such as the implementation of the Serious Disaster Punishment Act, the need for establishing proactive prevention and management processes is growing in order to minimize the impact of safety and health risks. In particular, the occurrence of industrial accidents can result in the risk of loss of human resources, the risk of work process interruption, and legal and reputational risks.







In order to effectively manage these risks, Hanwha Systems has established a risk assessment process from the perspective of preventing industrial accidents and has advanced its risk management system. By evaluating the work environment, processes, technology, potential risk factors, etc., we recognize risks and derive countermeasures accordingly, and evaluate their effectiveness. We also systematically manage potential safety risks and manualize activities to prevent accident risks.

Our Approach to Sustainability

Material Issue ② Strengthening Site Safety and Health Management

Risk Management

Site Risk Assessment Process

Step 1. Prepare in advance 	<ul style="list-style-type: none"> • Selection of assessment targets based on work and process • Determining the subject and scope of the evaluation • Gathering information: work standards, work procedures, etc
Step 2. Identifying hazards and factors 	<ul style="list-style-type: none"> • Identifying hazardous factors by work process <ul style="list-style-type: none"> – Method of business trip inspection – A method of listening and questioning – Methods based on health and safety data – Methods by the Health and Safety Checklist
Step 3. Risk estimation 	<ul style="list-style-type: none"> • Estimate likelihood (frequency) and severity (sensitivity) by identifying risk factors • Calculate the value according to the estimation criteria
Step 4. Risk Determination 	<ul style="list-style-type: none"> • Evaluate the likelihood and materiality to increase the size of the risk
Step 5. Risk Establishment and implementation of reduction measures 	<ul style="list-style-type: none"> • Establishment of reduction measures <ul style="list-style-type: none"> – fundamental measures, engineering measures, administrative measures, use of personal protective equipment, etc • A master of effectiveness <ul style="list-style-type: none"> – After implementing mitigation measures, reevaluate whether the risk has been reduced in magnitude • Employment education, posting, or notification
Step 6. Record and Preserve 	<ul style="list-style-type: none"> • Hazard and risk factors subject to risk assessment • Dangerous content • Details of actions based on risk directions

2023 Risk assessment and mitigation actions results

Category	Risk assessment techniques	Unit	Critical risk factor identifications	Action completed
Gumi site	4M ¹⁾	cases	53	53
Yongin Site	KRAS ²⁾	cases	4	4
Euljiro/Jukjeon Data Center	KRAS ²⁾	cases	3	3
Total	–	cases	60	60

1) 4M: Human, Machine, Physical and Management

2) KRAS: Mechanical, Electrical, Chemical, Biological, Work Characteristics, Work Environment

Identification of critical risk factors and mitigation actions by site

- Gumi site: Identified and completed measures to prevent workers from falling due to interference between outdoor ladders and shelter doors when entering and exiting shelters
- Yongin Site: Measures completed after identifying electric shock and fire hazards due to container leakage and electric leakage
- Euljiro/Jukjeon Data Center : Eliminated fire hazards (personal heaters, unorganized multi-outlet power strips use , etc.)

Metrics and Goals

Category	Unit	Details	Achievements in 2022	Achievements in 2023	2024 Goals
Safety culture diagnostics	points	<ul style="list-style-type: none"> • Quantitative diagnosis of the level of safety culture among employees at each site (Gumi, Yongin, Yeouido) • Change management for identifying, improving, and raising awareness of health and safety vulnerabilities 	75.6	79.2	85
Incident management	cases	<ul style="list-style-type: none"> • Serious industrial accidents <ul style="list-style-type: none"> ① 1 or more fatalities ② 2 or more injuries requiring medical treatment for more than 6 months in the similar incident ③ 3 or more cases of occupational illness, such as acute poisoning, from the same hazard within one year 	0	0	0
Healthcare	cases	<ul style="list-style-type: none"> • People with occupational diseases <ul style="list-style-type: none"> – Those who have a special medical examination and findings of occupational diseases caused by the hazardous factors (susceptible) 	0	0	0

Our Approach to Sustainability

Material Issue ③ Supplier Support and Sustainability Management

Governance

At Hanwha Systems, the Finance Office (CFO) under the CEO plays the role of finalizing policies for Supplier support and sustainability management, and reports to the CEO when relevant issues arise. The department in charge of Supplier Support and Sustainability Management is separated from the Purchasing Department and operates the Sustainability Management Team, which conducts 'ESG works' and 'fair trade and shared growth works.' The ESG Part of the department provides support for supplier management activities and manages supply chain ESG risks, while the Shared Growth Part strengthens sustainable partnerships by implementing fair trade and shared growth programs.



Detailed Roles for Supplier Support and Sustainability Management Governance Defined by each Governance Entity

Category	Responsibilities and roles
CEO	• Oversight and Review of Supplier Support and Sustainability Management Performance
Finance Office (CFO)	• Playing a final decision-making role, including setting policies for supplier support and sustainability management
Sustainability team	• ESG Part : Supplier Support for ESG management (training, diagnosis, assessment, etc.) • Shared Growth Part: establishment of shared growth policy and guidelines, grievance center for suppliers, and win-win management activities

Strategy

Sustainable supply chain management policy

Based on the spirit of 'Going Further Together', Hanwha Systems has established the sustainable supply chain management policy to build a sustainable shared growth ecosystem. The policy aims to enhance stakeholder value by establishing a stable supply chain that do not falter in the face of climate change, natural disasters as well as potential domestic and international ESG risks. The policy has been approved by the CEO and posted on the company website.

Sustainable Supply Chain Management Policy

Shared growth directions

Hanwha Systems has established three directions for shared growth and three key tasks 13 to grow together with our suppliers and create sustainable future value together. In addition to fair trade with our suppliers, we are sparing no effort to support them in building the foundation for ESG management to minimize potential ESG risks in the value chain.

<p>Strengthening supply chain ESG management</p>	<ul style="list-style-type: none"> • To establish Scope 3 management policies within supply chain • To provide ESG diagnostic services to suppliers • ESG training and consulting support • ESG Excellence, certificates and awards available
<p>Securing a sustainability rating of excellence</p>	<ul style="list-style-type: none"> • To achieve a superior rating in global ESG assessments • To achieve a superior rating on the Fair Trade Practices Assessment • To earn an Excellent rating on Korea's Shared Growth Index Assessment
<p>Expanding the Real Win-Win program</p>	<ul style="list-style-type: none"> • To work with banks to provide suppliers with better financing at lower rates • To provide on-the-job training programs beyond statutory mandatory training for suppliers • To provide quality management and rating certification consulting for suppliers • To support for suppliers' disaster safety, wellbeing and benefits • To Help suppliers solve their labor shortages • To support for investments to localize and expand international sales • Other supports including organizing community activities such as meetups, socials, etc., as well as complaints handling

Supplier Code of Conduct

To encourage our suppliers to participate in our social responsibility and implementation efforts, we have established and disclosed a Code of Conduct covering human rights/labor, safety and health, environment, and ethics (anti-corruption). The Code of Conduct is included as an attachment in the basic contract for transactions and applies not only to all first-tier suppliers, but also to second and third-tier sub-suppliers that provide products and services to Hanwha Systems or enter into contracts for all other transactions with Hanwha Systems. Compliance with the Code of Conduct is monitored annually through the supply chain ESG diagnosis and evaluation of the 'ESG management support program for suppliers.'

Our Approach to Sustainability

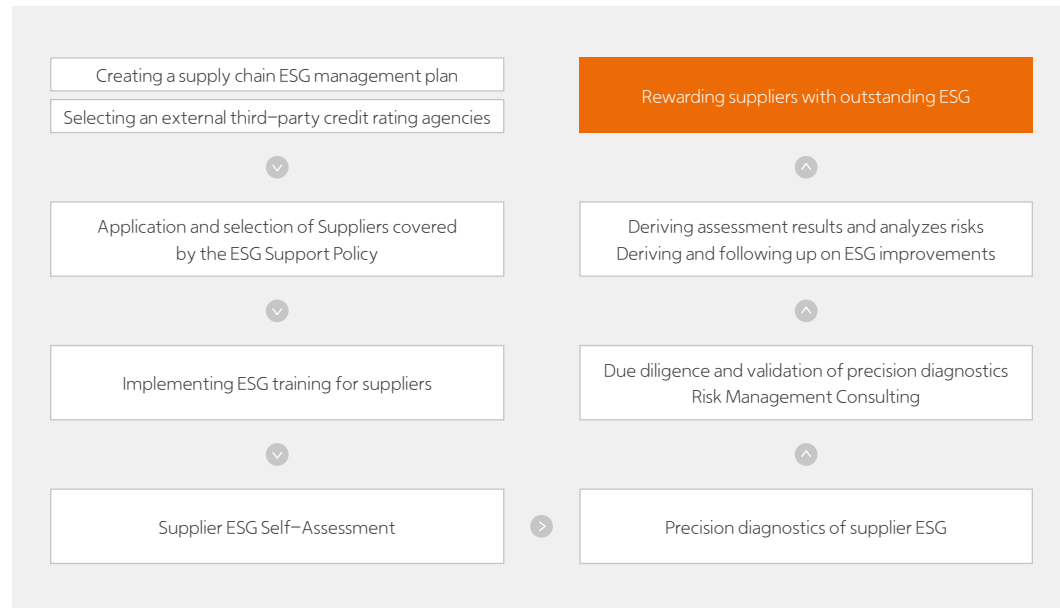
Material Issue ③ Supplier Support and Sustainability Management

Risk Management

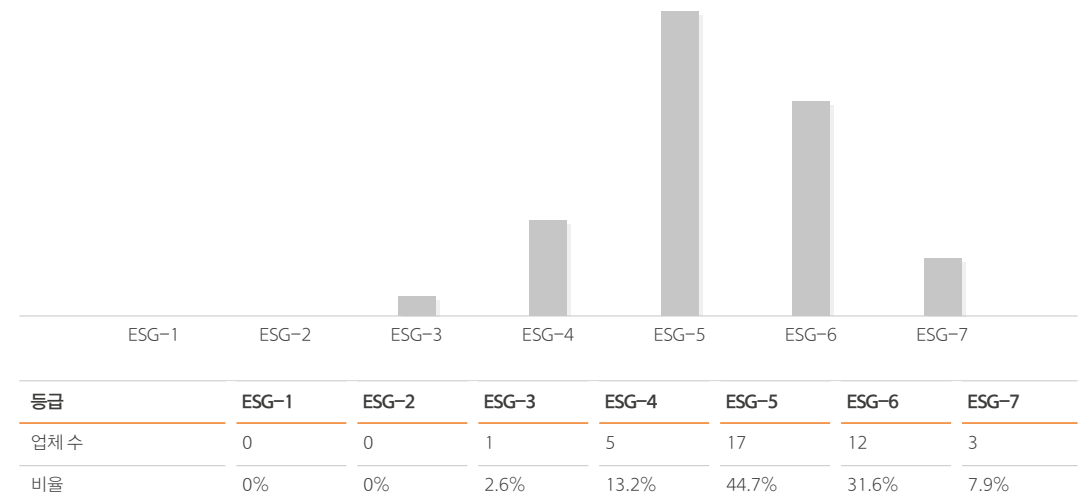
Environmental pollution, human rights issues, and ethics and corruption issues arising from the supply chain are significant risk factors that can greatly affect the sustainable management activities of not only the original contractor but also the entire supply chain. Hanwha Systems annually implements the 'ESG management support program for suppliers' on small and medium-sized enterprises that face difficulties in investing in ESG management due to limitations in their resources and manpower compared to large enterprises.

This project provides training, diagnosis, evaluation, and consulting services free of charge through an external professional credit rating agency, and in 2023, we developed a supply chain management function in ESG ON (Hanwha Systems ESG Management System) to database and manage the diagnosis results. In addition, we provide the 'One-Click Self-Improvement Program' (various regulations, forms, tools, government policies, etc.) to high-risk suppliers (ESG composite rating of 6-7) to improve ESG management and manage risk improvement to raise the average ESG level of the entire supply chain. Through this, we are spreading the importance of improving ESG awareness and sustainable management to stably manage overall supply chain risks.

Supplier support for ESG management (Risk identification and management) process



Results of the 2023 Supplier Support for ESG Management 'Precision Diagnosis'



Metrics and Goals

Category	Unit	Details	2022 Achievements	2023 Achievements	2024 Goals
Shared growth and Fair Trade Assessment	Rating level	Comprehensive Shared Growth Assessment	Excellent	Excellent	Excellent
		Evaluating the implementation of KFTC antitrust agreements	Excellent	Best	Best
Supplier Support for ESG management	Cases	Diagnosis and assessment of suppliers' ESG risks (self-diagnosis)	100	91	98
	Cases	Diagnosis and assessment of ESG risks of suppliers (Precision Diagnosis)	20	38	44

Our Approach to Sustainability

Material Issue 4 Human Resource Development and Talent Management

Governance

For its human resource management, Hanwha Systems places HR Team 1 and Team 2, Talent Recruitment Team, and People Team under the Human Resources Office. In detail, the HR Team 1 and HR Team 2 are in charge of overall HR management, including manpower operation, compensation, training, and HR planning. The Talent Recruitment Team is responsible for recruitment planning and operation, and the People Team is responsible for operating employee complaints channels and creating shared growth labor-management relations. In addition, performance evaluations and compensation payments are required to go through deliberation and resolution by the Human Resources Committee to enhance fairness.



Detailed roles in alignment with human resource development and talent management governance

Category	Responsibilities and roles
CEO	<ul style="list-style-type: none"> Oversight and review of human resources development and talent management performance
Human Resources Office	<ul style="list-style-type: none"> Playing a final decision-making role, including setting policy for human resource development and talent management
Human Resources Committee	<ul style="list-style-type: none"> Review and vote on performance appraisals and compensation
HR Team 1 and Team 2	<ul style="list-style-type: none"> HR Policy and Organizational Planning and Operations Training & Culture, Time & Attendance
Talent Acquisition Team	<ul style="list-style-type: none"> Recruitment Planning, C-level and Key Talent Recruiting
People Team	<ul style="list-style-type: none"> Workers' organizations, promotion of shared growth labor relations, wage and collective bargaining agreements, and Labor-Management Council operation

Strategy

Career Development Path (CDP) organization

Hanwha Systems has designed and operated its own CDP system for employee career development. We support employees' competency development throughout the entire career cycle, from the induction program for new employees to the outplacement program after retirement. Common, leadership, job, and global training are systematized by position, and trainings are conducted in cooperation with the Hanwha Human Resources Development Center. We also conduct surveys on all training programs to measure the effectiveness of training programs, including quantitative indicators of training satisfaction and qualitative opinions on improvements, to provide quality training programs to employees. In particular, in the case of job training linked to certification, we manage the certification status of participants, and in the case of leadership and organizational culture-related training, we measure qualitative changes in employees' awareness and behaviors before and after training, and manage the effectiveness indicators of trainings through pre/post self-quantitative evaluation.

Organized by Hanwha Talent Management Center (Light Orange) Organized by Hanwha Systems (Dark Orange)

	Common	Leadership	Job	Global	Statutory
Executives	(Hanwha) Experienced executives New executives (Hanwha) New executives	Advisory Board Mentoring SERI CEO Leadership coaching Senior Executive Program		Enhancement program for common and specialized competencies	Executive language Sexual harassment prevention / Workplace bullying / Disability awareness / privacy protection / fraud prevention / compliance / security / environment and safety, Etc.
Team Leaders /L6-7	Onboarding program for experienced employees Introduction program for experienced employees Basic Job Training	Leadership program for team and section leaders Leadership program for senior team leaders New Team leadership Leader candidates		Outsourced training / Online outsourced training	Out placement program
L4-5	Mandatory Online training for new recruits		H-Class	Academic training Online job training academy (ProClass) Learning organization (MOM)	1:1 Language (phone / video)
L3 and below	Onboarding Program for new recruits Basic job Training Topic research mentoring (Hanwha) New employee introduction program New employee induction Business site Tour	Promotion 2 nd /3 rd retention	Technological mentoring/ Common technological training	Department OJT HPMP	

Our Approach to Sustainability

Material Issue 4 Human Resource Development and Talent Management

Strategy

On-Boarding Program

Hanwha Systems operates on-boarding programs such as Check-in program (welcome on the first day of employment), introductory training, and retention programs to help new employees settle in and prevent their premature departure. The retention program consists of social contribution group activities and 1:1 buddy programs with employees from other departments during the onboarding period, and supports their casual networking. In 2023, the satisfaction level of the retention program was about 4.3 (out of 5), and the turnover rate of about 100 graduates within the year was 2%, which shows how effective those programs in helping new employees adapt to the organization.

Risk Management

In the defense industry, in which Hanwha Systems operates, quality competitiveness directly translates into competitive advantage among companies as their products apply highly advanced technologies including surveillance and reconnaissance and satellite communication technologies. In the ICT industry, the pace of technological change is extremely fast, requiring employees to continuously update their knowledge and skills to keep up with the latest technologies. Therefore, the top priority is placed on the companies to ensure a systematic human resource development and talent management to enhance employees' creativity through continuous innovation and create a flexible organizational culture. Failure to recruit and develop talented human resources can lead to increased operational costs, such as additional hiring and training costs, in the short term, and deterioration of product quality and decreased productivity in the long term. To respond to this, we are supporting employees to acquire certifications, go to graduate schools, and operate a learning organization to enhance their competencies based on the CDP system. In addition, we are making various efforts such as the internal referral system and recruitment of "Contracting Departments" graduates, which refers to the securing of excellent talent from the universities thru a partnership with the universities.

Metrics and Goals

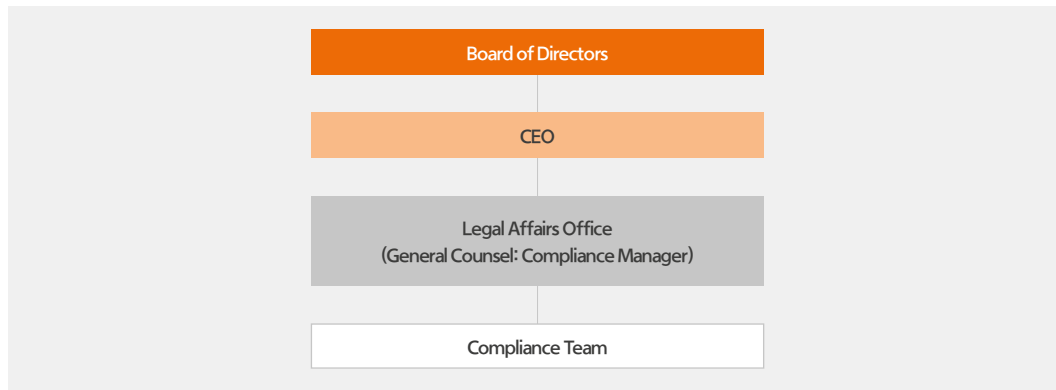
Category	Unit	Details	2022 Achievements	2023 Achievements	2024 Goals
Workforce development satisfaction	Positive response rate (%)	Items related to incentives during culture assessment (training opportunities, developmental programs, development through work)	40.8	53.2	55
Number of people entering basic training	Engagement rate (%), Persons	Number of entries and engagement rates for career, entry-level, and promotion paths	-	<ul style="list-style-type: none"> Defense <ul style="list-style-type: none"> - Participation rate in introductory career training: 87% (232/266) - Completion rate (first half / second half) : 100% (174 / 174) - Advancement course completion rate: 89.2% (338/379) ICT <ul style="list-style-type: none"> - Participation rate in introductory career training: 95% (116/122) - Completion rate (upper/lower half) : 100% (75/75) - Advancement course completion rate: 86.8% (164/189) 	90% + acceptance rate
Global and Professional Workforce Development Engagement	Engagement rate (%), Persons	In-house language program and academic training intake and participation rates	-	<ul style="list-style-type: none"> Defense <ul style="list-style-type: none"> - In-house language program: completion rate 88.4% (707/800) - Support for academic training: 5 PhDs, 15 Masters ICT <ul style="list-style-type: none"> - In-house language program completion rate: 98.3% (460/468) - Academic training support: 7 masters 	90% + in-house language program completion rate Continued growth in the number of academic trainees
Turnover rate	Turnover rate (%)	Voluntary turnover rate (excluding interns)	4	3	3% or less

Our Approach to Sustainability

Material Issue 5 Compliance and Ethics

Governance

Hanwha Systems has an ethics and compliance system centered on the Board of Directors and CEO. The General Counsel, who reports directly to the CEO, serves as both the Fair Trade Compliance Manager and Compliance officer, and regularly reports activities such as ethics and compliance goals, plans, and performance to the Board of Directors and CEO in accordance with the Compliance Control Standards and CP Operating Standards. As a dedicated organization for Corporate Compliance Management, the Compliance Team plans and operates all corporate compliance management activities, including establishing corporate compliance goals, sending compliance letters, conducting compliance-related training and inspections, collecting compliance pledges, and organizing and operating compliance councils. It also identifies and evaluates compliance risks by department, establishes and implements improvement measures, and evaluates their effectiveness.



Detailed roles for compliance and ethics governance by entity

Category	Responsibilities and roles
Board of Directors	<ul style="list-style-type: none"> Finalizing and voting on compliance and ethical management issues and oversee the performance of activities
CEO	<ul style="list-style-type: none"> Reviewing compliance and ethics activities and report to the board of directors
Legal Affairs Office	<ul style="list-style-type: none"> Establishing compliance and ethics goals and plans, report on performance and other activities
Compliance Team	<ul style="list-style-type: none"> Managing compliance controls, reviewing and improving compliance training and ethics/ corruption risk, and operating compliance councils

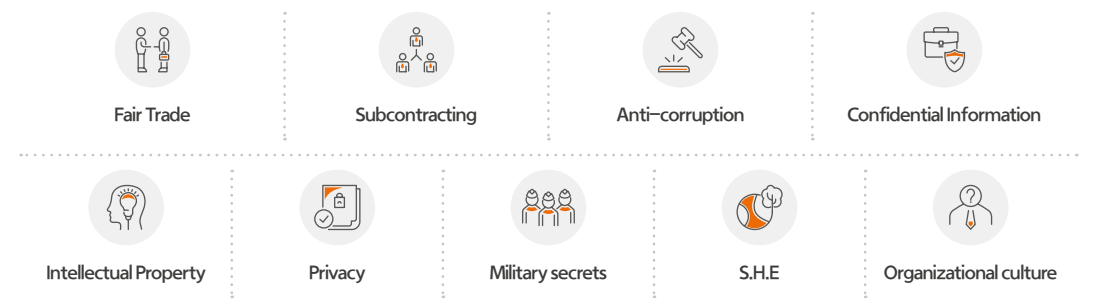
Strategy

Hanwha Systems has established the Corporate Code of Ethics as the highest ethical code and the Employee Guidelines as a detailed code of practice to serve as a standard for correct value judgment and behavior. In particular, the Employee Guidelines specify detailed guidelines and prohibitions for employees to practice ethical management in accordance with the Corporate Code of Ethics, thereby enhancing employees' understanding. Furthermore, we operate the Compliance Program (CP) to ensure compliance with fair trade and required laws and regulations. As part of CP activities, we have released the Fair Trade Compliance Handbook, which contains all the necessary matters for fair trade compliance, and is being subject to a regular revision, twice a year, to reflect the latest laws and regulations. We have also established the 'Hanwha System CP Operating Standards' to provide detailed information for employees to comply with and implement all fair trade related laws and regulations.

The CP Operating Standards govern the overall contents of the Company's antitrust compliance program. In accordance with the CP Operating Standards, the Company appoints the Fair Trade Compliance Manager, in charge of CP, subject to approval by the Board of Directors. The CEO, who is also the Chief Executive Officer, directly expresses his will for fair trade and compliance through various activities throughout the year, such as Corporate Compliance Letters, revisions to the Compliance Manual, and direct participation in award events for compliance excellence, and supports employees to instill the will for compliance. In addition, Hanwha Systems conducts various compliance trainings annually, including training for compliance council members, training for ISO internal auditors, special training for executives, Corporate compliance training, departmental training according to fair trade risks, corruption prevention training, and compliance training for new employees, to foster compliance awareness among all employees.

[Hanwha System Code of Ethics and Employee Ethics Management Guide](#)

Compliance management list



Our Approach to Sustainability

Material Issue 5 Compliance and Ethics

Risk Management

In recent years, issues such as embezzlement and bribery have been in the spotlight, which has further raised stakeholders' demands and expectations for corporate ethics and compliance management. Failure in ethics and compliance management can result in financial risks such as litigation costs and fines, as well as direct and indirect financial implications due to diminished customer and investor trust and reputational damage. Furthermore, any failure in corporate ethics and compliance requirements may lead to operational risks, such as restrictions on participation in public bidding and financing, and even suspension of business operations. Therefore, **Hanwha Systems** conducts regular risk checks to identify major issues in advance and establish improvement plans.

To prevent and improve compliance and corruption risks that may arise in the company, **Hanwha Systems** has established and operates a risk assessment cycle to measure compliance and corruption including fair trade practices at all departments every year. We identify compliance and corruption risks by department, evaluate the level of risk, establish improvement action plans for those risks, check the results of the implementation of the improvement measures through effectiveness evaluation, and reassess the risks after improvement. The effectiveness of the compliance and corruption risk assessment cycle is checked annually through audits by external organizations. To this end, **Hanwha Systems** conducts compliance control activities throughout the year based on the establishment and operation of the CP (Compliance Program), ISO 37301 (Compliance Management System) and ISO 37001 (Anti-Corruption Management System). The performance and results of these compliance control activities are reported to the Board of Directors and CEO semi-annually.

Metrics and Goals

Category	Unit	Details	2022 Achievements	2023 Achievements	2024 Goals
Corporate Compliance Violations	Case	Legal violations (Reported in public disclosing filings)	0	0	0
Corporate Compliance Assessment	Rating level	Company-wide Compliance	Average A	Average A	Average A or above
Corporate Compliance Pledge Submission Rate	%	Employees Pledge to Practice Ethics and Compliance Management	99.9%	99.9%	96% or above
Corporate Compliance Training Completion Rate	%	Employees completed ethics and compliance management training	98.4%	99.9%	98% or above

ESG Performance

Environmental	39
Social	58
Governance	88

Environmental

Hanwha Systems has established the Environment and Safety Management System with its CEO appointed as the final decision maker of the EHS Committee in an effort to be more environmentally responsible organization. Also, it has established its own system to ensure more systematic management of environmental impacts, including pollutants and waste. Furthermore, we have published ECOMAP to take the lead in preserving the natural ecosystems near our sites, and are promoting ecosystem preservation and environmental cleanup activities.

KEY PERFORMANCE

Strengthening Environment and Safety Management Governance



S.H.E Management Investment of KRW **3.79** billion



Developing and operating a chemical management system



Zero environmental penalties and violations



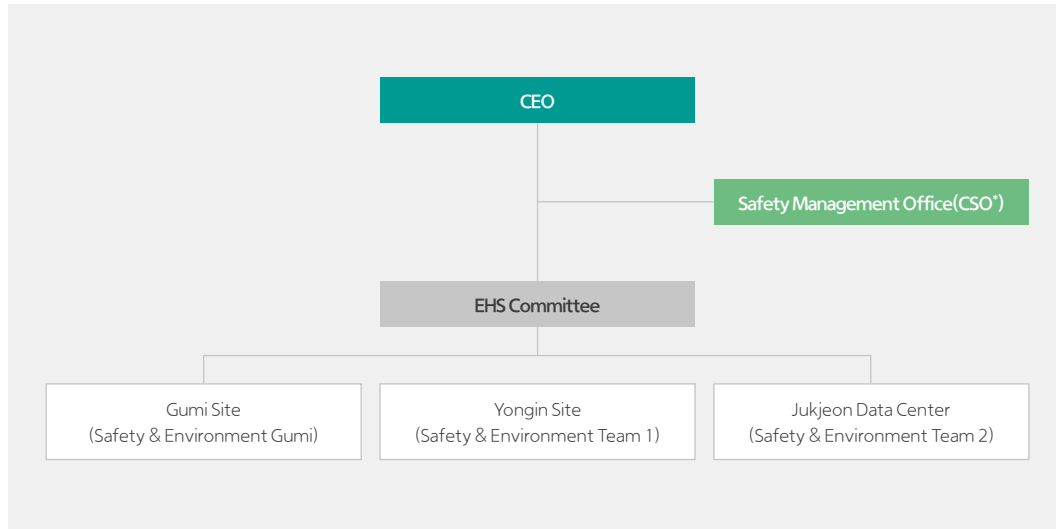
Environmental

S.H.E (Safety, Health, and Environment) Management

S.H.E Management System

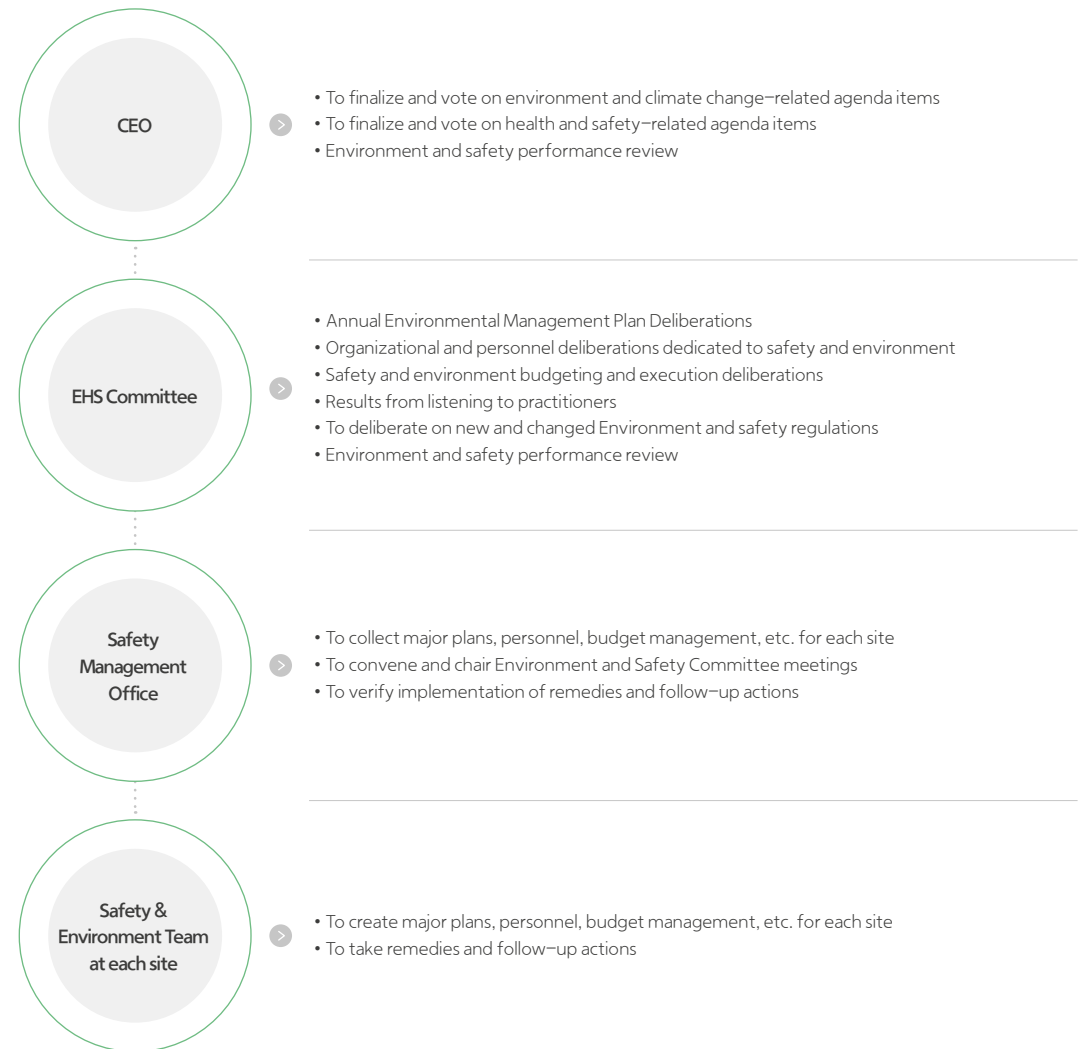
S.H.E management governance

Hanwha Systems has appointed the CEO as the chief officer of the Environmental Management decision-making organization to improve the execution of S.H.E. (Safety, Health, and Environment) management. In addition, the EHS Committee is formed to deliberate and resolve related issues such as budgeting, goals and plans, and performance evaluation related to Corporate Safety, Health, and Environment at least once a year. The Safety Management Office and CSO(Chief Safety Officer), which report directly to the CEO, serve as the safety, health, and environment control towers, establishing Environmental Management Plans for each site and responding to issues. We have established an operating system to respond to environmental issues in a timely manner by organizing the Safety & Environment Team, an executive department dedicated to Environment and Safety Management for each site. In addition, we hold monthly meetings to identify and manage issues arising from environmental management activities in a timely manner.



*CSO : The Chief Safety Officer is responsible for SHE management

Roles by each S.H.E. governance entity



Environmental

S.H.E (Safety, Health, and Environment) Management

S.H.E Management System

S.H.E.-related certifications

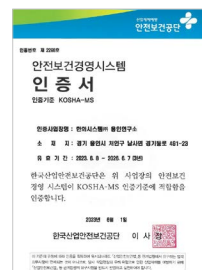
In order to maintain a global-level S.H.E. management system, **Hanwha Systems** has acquired and maintained certifications of relevant international standards such as ISO 45001 and ISO 50001. In particular, the Gumi Site establishes a management plan in consideration of the overall situation in terms of environment and energy use, and the certification is verified through internal and external audits every year.

Site	Certifications	Validity period
Gumi Site	Green Business Designation	Organized by Daegu Regional Environment Agency
	ISO 50001	Energy Management System
	ISO 14001	Environmental Management
	KOSHA-MS	Health and Safety Management System
	ISO 45001	Health and Safety Management System
Yongin Site	KOSHA-18001	Health and Safety Management System

S.H.E. management regulations and systems

Hanwha Systems has prepared 31 internal regulations, including manuals and management rules, for each external law and system related to S.H.E. In addition, the Safety Management Office monitors the enactment and revision of laws and regulations on a quarterly basis and responds in a timely manner. We also disclose our environment and safety management policies and rules to internal and external stakeholders to communicate management's commitment to resolving environmental issues across the company.

Category	Related laws and regulations	Internal regulations
General	<ul style="list-style-type: none"> ECO-YHES System Absolute Safety Rules 	<ul style="list-style-type: none"> Environment, safety, and management Manual and 12 others Operating Regulations of Environmental Management System, Safety Management System, and Energy Management System
Environment	<ul style="list-style-type: none"> Clean Air Conservation Act and 24 others Chemical management system System for products subject to recycling obligations 	<ul style="list-style-type: none"> Environmental impact registration rules and 4 others
EHS	<ul style="list-style-type: none"> Occupational Safety and Health Act and 14 others Risk assessment system Environment and safety training 	<ul style="list-style-type: none"> Environment and safety accident management rules and 9 others
Firefighting	<ul style="list-style-type: none"> Framework Act on Fire-Fighting Services and 4 others Emergency scenario training 	<ul style="list-style-type: none"> Fire prevention management rules
Energy	<ul style="list-style-type: none"> Framework Act on Energy and 7 others 	<ul style="list-style-type: none"> Energy Management Rules and 1 other



Yongin Site KOSHA-MS Certification



Gumi Site Green Business Designation Certification



Gumi Site ISO 14001 Certification



Gumi Site ISO 45001 Certification



Gumi Site ISO 50001 Certification

Environmental safety violations

Site	2021	2022	2023
All Sites (Gumi, Yongin, Jukjeon Data Center)	0 case	0 case	0 case

Environmental

S.H.E (Safety, Health, and Environment) Management

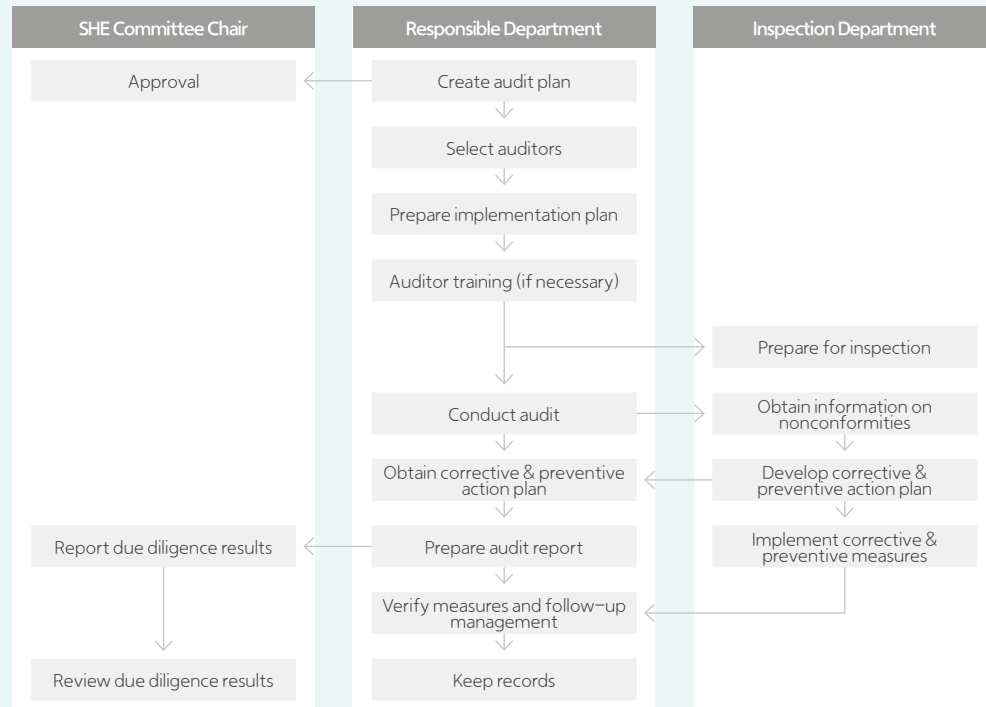
S.H.E Management System

CASE

Internal and external audits

Hanwha Systems conducts regular internal audits once a semi-annual period to verify the conformity and effectiveness of international standards (ISO 14001, etc.) certification and to resolve any problems, and special internal audits are conducted for specific departments as needed. In addition, follow-up audits are conducted to verify the results of improvement measures for nonconformities resulting from the audits, and the results are reported to the CEO. Furthermore, we undergo third-party external audits through external organizations every year to verify the certification system. For measures derived from audits, we analyze the causes and establish improvement plans to prevent recurrence.

Internal Audit Process



S.H.E Management Activities

S.H.E management plan and performance

Based on the Environmental Management Plan established by the EHS Committee every year, Hanwha Systems invests in improving facilities and technologies to improve the working environment at its sites. In addition, we continuously conduct environmental safety education and environmental accident response training to raise employees' awareness of environment and safety management. Through this, we are improving the efficiency of facilities and processes and creating a comfortable and safe site.

Category	Environmental management system	Compliance with environmental and safety laws and regulations
2023 Plans	<ul style="list-style-type: none"> Zero environment and safety accidents Environment and safety training progress Conducting internal audits Conducting Environment and safety inspection Improvement of Environment and safety facilities Environment and safety process improvement Environmental accident and emergency response drills 	<ul style="list-style-type: none"> Environment and safety compliance activities Environment and safety compliance assessment Reference to environment and safety legislation enactments and revisions
2023 Progress	<ul style="list-style-type: none"> 0 case of environment and safety incidents 13,180 Environment and safety trainings completed 66 mitigations in internal audits 167 Environment and safety inspections 35 facility improvements 26 process improvements 11 environmental incident response drills 	<ul style="list-style-type: none"> First and second half compliance assessments 21 mitigation actions for compliance assessments Reviewing 86 enactments and revisions to legislation

Environmental

S.H.E (Safety, Health, and Environment) Management

S.H.E Management Activities

S.H.E Management Investments

Hanwha Systems organizes and executes the necessary S.H.E. budget to establish a safety management system, including improvement of hazards and risks of facilities and equipment on safety, health, and environment. In addition, detailed budget execution performance and next year's budget plan for each site are established and reported to the Board of Directors every year. In 2023, we invested approximately KRW 3.79 billion as part of S.H.E. management, and in 2024, we plan to invest approximately KRW 4.86 billion, an increase of 28% over 2023 performance. In particular, for the Jukjeon Data Center Site, we are continuously replacing facilities to improve power efficiency by improving the operation structure of UPS (Uninterruptible Power Supply) facilities.

2023 Investment performance

Site	Investment details	Unit	Amount
Gumi Site	Safety training system for visitors to do works inside the site	KRW million	150
	Smartphone-based NFC safety inspection system	KRW million	10
Yongjin Site	Purchase health center equipment	KRW million	16
	Mechanical performance checks	KRW million	30
	Structural safety diagnosis of a test pit with reinforced earth retaining wall	KRW million	35
Jukjeon Data Center Site	Building charging stations for electric vehicles	KRW million	60
	Replacing emergency power equipment	KRW million	2,849
Other		KRW million	644
Total		KRW million	3,794

Environmental Management Risk and Opportunity Monitoring

Hanwha Systems conducts regular annual evaluations of risks and opportunities. In addition, ad-hoc evaluations are performed as needed. For items with established risk and opportunity action plans, improvement activities are carried out according to the action plans and set goals. The results are evaluated by the responsible department and reported to the board of directors at least once a year.

Situations Requiring Ad-Hoc Evaluations

- Initiation of new projects and changes to existing businesses
- Organizational restructuring or major strategic changes
- Occurrence of major issues due to changes in the market environment or other external factors
- Legal violations
- Enactment or revision of laws and regulations
- When required through due diligence and internal audits

Environment and Safety Incident Response System and trainings

Hanwha Systems regularly conducts environment and safety accident drills to respond quickly in the event of an environmental accident in accordance with the Environment and Safety Incident Response System. We conduct response drills by establishing our own scenarios for various environment and safety-related accidents that may occur at our sites, and any areas that need improvement during the drills are reflected in the next year's drill plan. Additionally, the training is systematically conducted according to the process of each stage: incident occurrence, reporting, dissemination, and initial response.

Environmental incident response scenarios by type

Category	Scenario types
Atmosphere	<ul style="list-style-type: none"> • Action scenarios for air pollution prevention facilities outages • Action scenarios for abnormal operation of air pollution prevention facilities • Action scenarios for exhaust FAN malfunction of air pollution prevention facilities • Action scenarios when adsorption tower overload occurs
Chemicals and gases	<ul style="list-style-type: none"> • Default behavioral scenarios in the event of an oil, chemical drum break or leak • Default behavioral scenarios for toxic spill incidents • Action scenarios for gas leaks and explosions

Environmental

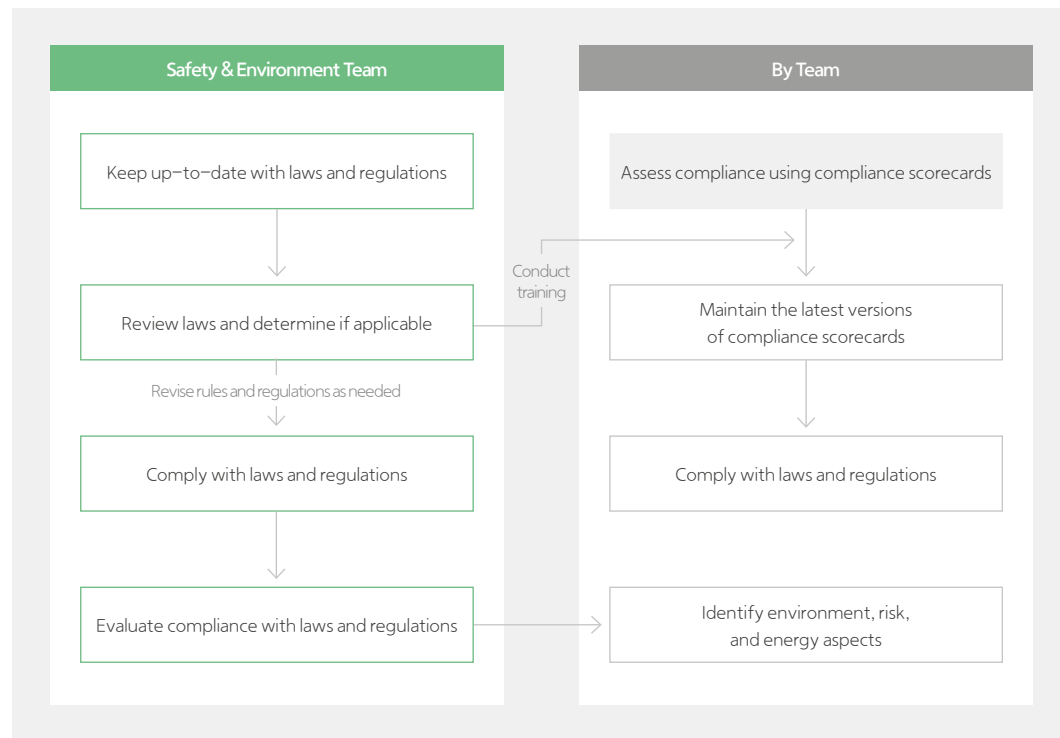
S.H.E (Safety, Health, and Environment) Management

S.H.E Management Activities

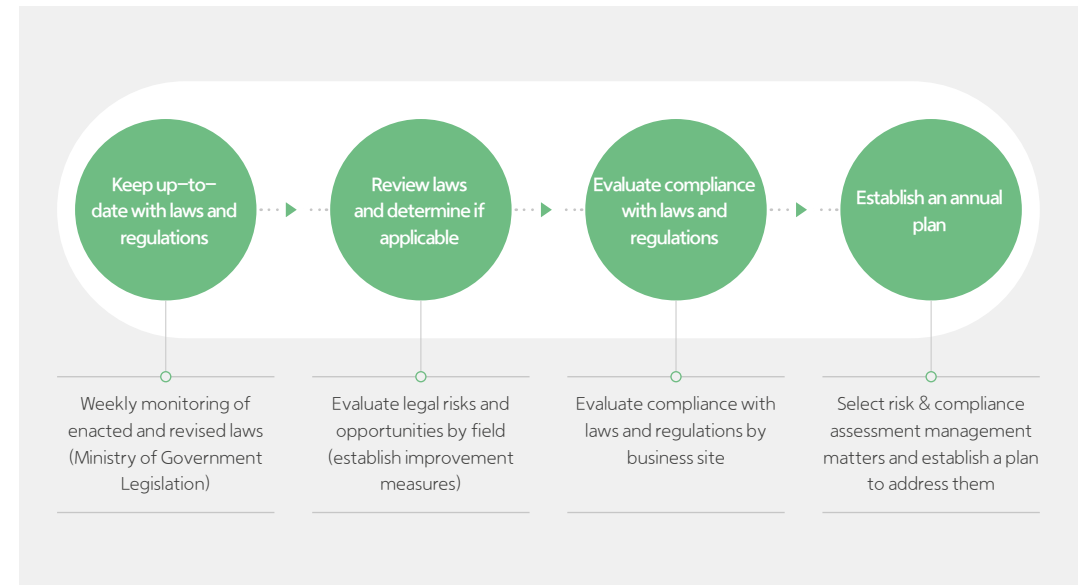
S.H.E. compliance assessment process

Hanwha Systems monitors the latest laws and regulations related to environment, energy, and safety and safety, and assesses compliance with laws and regulations twice a year at each site. We also establish response strategies based on the annual compliance assessment and reflect them in our annual plans. In particular, in the first half of 2023, the Gumi Site received a compliance inspection from an external expert organization, the Korea Occupational Safety Association, and conducted a self-assessment in the second half of the year. In addition, we completed improvement measures for a total of 21 items derived from the compliance assessment in the first and second half of 2023 at each site.

Legal Assessment Process



Legal Response Strategy



2023 Compliance assessment results

Category	Methodology	Improvement points identified from the first half assessment	Improvement points identified from the second half assessment	Number of mitigation actions (Rate of actions taken)
Gumi	Outside Experts (first half) Self-assessment (second half)	3 cases	3 cases	6 cases (100%)
Yongin	Cross-check (first half) Self-assessment (second half)	4 cases	4 cases	8 cases (100%)
Jukjeon Data Center	Cross-check (first half) Self-assessment (second half)	4 cases	3 cases	7 cases (100%)

Environmental

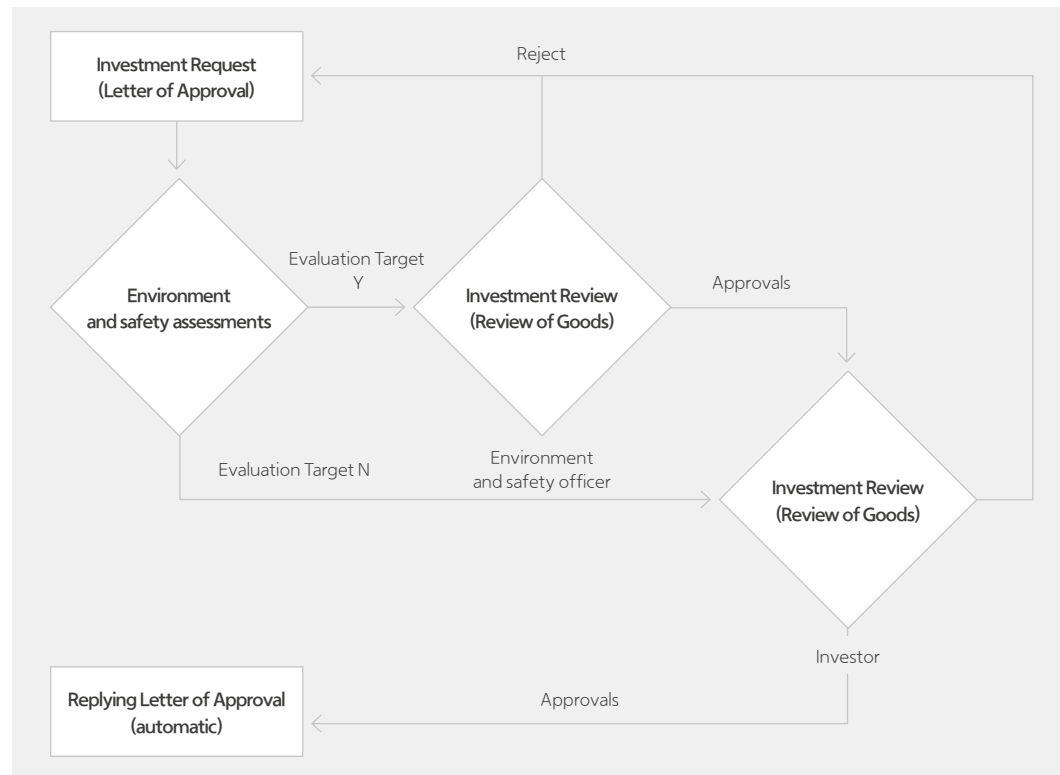
S.H.E (Safety, Health, and Environment) Management

S.H.E Management Activities

Environmental risk factor prescreening system

When reviewing new investment projects, **Hanwha Systems** proactively checks risk factors in the areas of environment and safety to prevent environmental pollution and ensure employee safety. First, all investment items are registered in the Hanwha Asset Management System (HAMS) at the decision-making stage of acquiring new fixed assets (tangible and intangible assets). Subsequently, out of the investment items, environmental risk factors are identified and selected to see whether they should be subject to environment and safety review. In cases of items being subject to review, the person in charge of the Safety & Environment Team checks the environmental risk factors on the Internal Investment Review Checklist to prevent potential risks that may arise.

Environment and safety assessment process for new investment projects

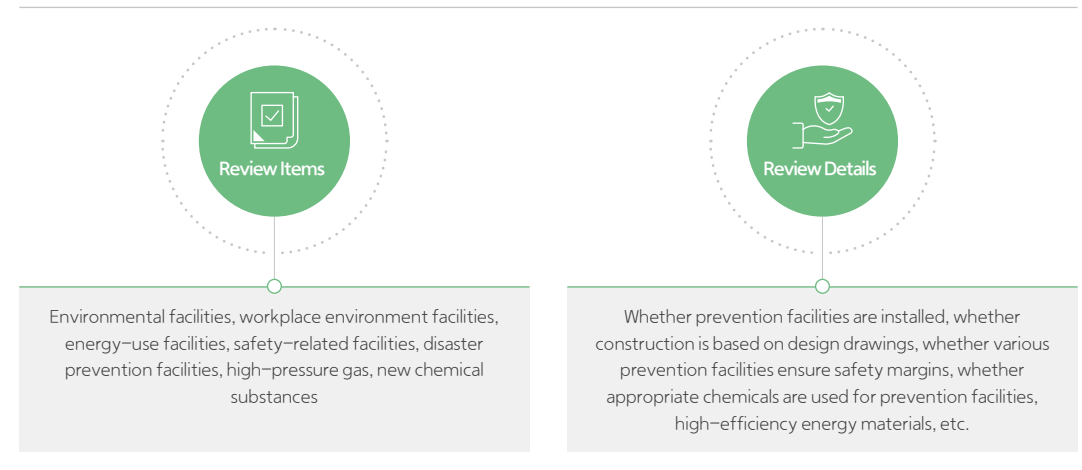


Environment and safety assessment checklist for new investment projects

Check points	Evaluate and review (✓)	Remarks
Is there a risk of generating large amounts of environmental pollutants?	<ul style="list-style-type: none"> • Not applicable () • Notable () 	Soil contamination, Air pollution, Water pollution, Noise, etc.
Does it Directly or indirectly contribute significantly to GHG emissions?	<ul style="list-style-type: none"> • Not applicable () • Notable () 	
Is there a potential for environmental violations and environmental accidents?	<ul style="list-style-type: none"> • Not applicable () • Notable () 	

Pre-approval process

Hanwha Systems reviews and evaluates the impact on the environment and occupational safety and health in advance when issues such as the purchase, relocation, modification of new equipment (facilities), or layout changes arise. We strive to prevent industrial accidents and create a pleasant and eco-friendly working environment by considering preventive measures for environmental and safety aspects and energy efficiency.



Environmental

S.H.E (Safety, Health, and Environment) Management

S.H.E Management Activities

Environment and safety assessment of new suppliers

Based on its eco-friendly green purchasing policy, Hanwha Systems has introduced evaluation indicators for environment and safety when registering new Suppliers to comprehensively evaluate the development and mass production process for products and services. In 2023, out of 130 new suppliers in the defense sector, we completed due diligence evaluations for 12 companies in the development process and 5 companies in the mass production process.

Criteria for evaluating new suppliers

Evaluation items	Metrics	Details	Key Word	Scoring	
				Weights	Criteria
Safety Manage	Environment and safety	Assessment of controls for the safety of a process or office environment	<ul style="list-style-type: none"> ① Existence of Environment and Safety personnel or organization ② Existence of Environment and Safety regulations ③ Environment and Safety training performance 	100%	<ul style="list-style-type: none"> Prerequisites: 1, 2 Additional requirements : At least two more among 3-6
			<ul style="list-style-type: none"> ④ Various accident prevention activities (accident-free activities) ⑤ Inspection history of various facilities (including firefighting) 	80%	<ul style="list-style-type: none"> Prerequisites: 1,2 Additional requirements : At least one more among 3-6
			<ul style="list-style-type: none"> - Safety clothing for special process, management of surroundings of fire extinguishers, etc. - Dangerous goods storage status and procedures 	60%	<ul style="list-style-type: none"> Prerequisites: 1 Additional requirements : N/A
			<ul style="list-style-type: none"> ⑥ Waste disposal procedures in place and practice 	40%	<ul style="list-style-type: none"> Prerequisites: N/A Additional requirements : At least 1 or more among 2-6
				20%	<ul style="list-style-type: none"> Prerequisites: N/A Additional requirements : None among 2-6

Stakeholder-specific responses to improve Environment and Safety

Hanwha Systems responds appropriately to the needs of various stakeholders such as employees, government, public institutions, and local governments at each site. To identify the needs of internal employees, we hold Occupational Safety and Health Committee at each site, and for external stakeholders, we communicate with them frequently. The Environment and Safety Department regularly summarizes the status of communication with stakeholders on a semi-annual basis and reports to the CEO.

2023 External stakeholders' response status

Site	Stakeholders	Request and response status	Date
Yongin	Ministry of Science and ICT	Selecting lab safety management site inspections	Feb, 2023
	Occupational Safety and Health Administration	Collective training to improve senior health administrator's expertise	Feb, 2023
	Yongin City	Coordinating pest management to prevent the spread of bed bugs	Nov, 2023
Gumi	Gumi City	Attaching IoT Measurement Devices	Jan, 2023
	Gumi Fire Department	National Critical Facilities Disaster Prevention Roundtable	Mar, 2023
	Ministry of Science and ICT	Conducting lab safety management site inspections	June, 2023
	Ministry of Labor and Employment's Gumi Regional Office	Request to attend a Safety Management Council meeting in area	Nov, 2023
ICT	Korea Occupational Safety and Health Administration's Gyeongbuk Regional Headquarters	Training to promote safety culture and professional development	Dec, 2023
	Labor Welfare Corporation's Yeosu Branch	Submitting a Workers' Compensation Statement	Feb, 2023
	Yongin Fire Department	Submitting a report on the results of the fire protection system functional inspection	April, 2023
	Gwangju Local Employment and Labor Office	Outcomes of corrective actions taken per the letter issued by Department of Labor after its onsite inspection	April, 2023
	Occupational Safety and Health Administration's Jeonnam East Branch	Checking the implementation of hazard prevention plan	April and June, 2023

Environmental

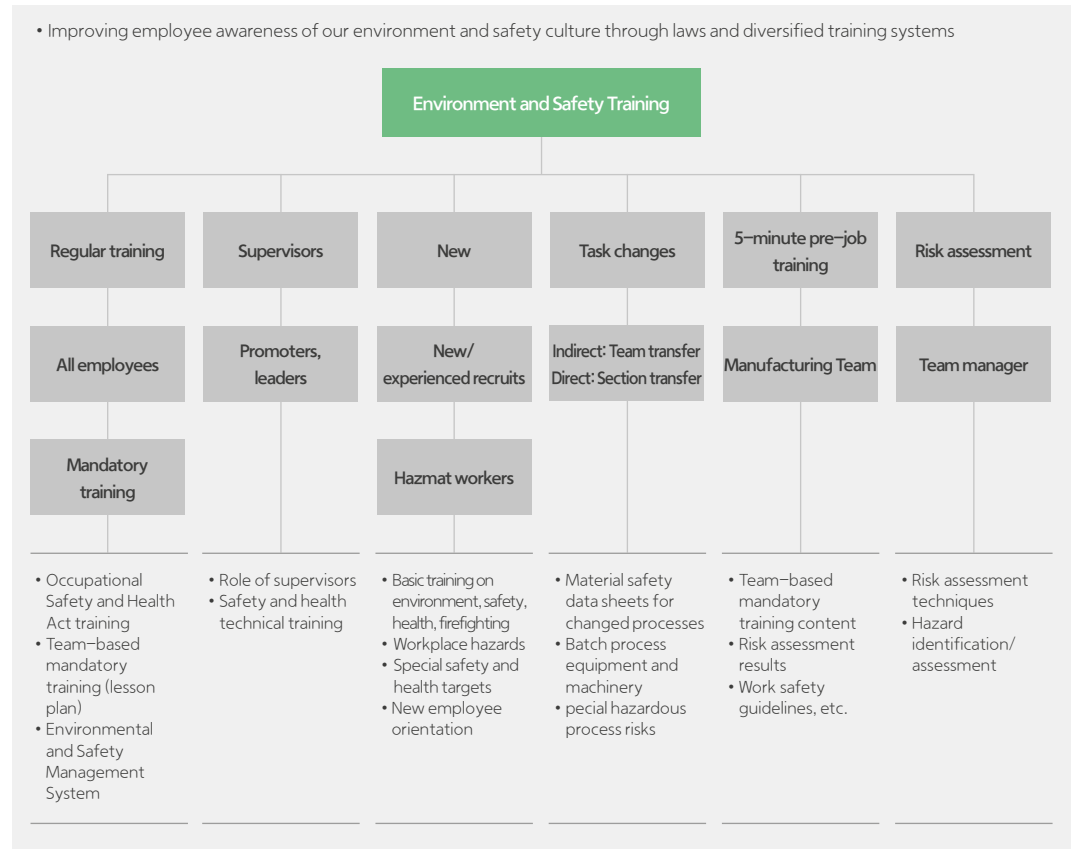
S.H.E (Safety, Health, and Environment) Management

S.H.E Management Activities

Environment and safety training

Hanwha Systems conducts environmental management training for employees and other stakeholders to raise awareness of Environment and Safety Management. In addition, we plan and implement environment and safety management training programs tailored to specific job categories of employees, and manage training performance through a training implementation management system.

Environment and Safety Training System Chart



Training Implementation Management System

Confirms individual environment and safety training implementation through a computerized system



Environmental and Safety Supervisor Training

Environment and safety training system

Environment and safety training program

Category	Training name	Training cycles	Targets
Environmental Management System	Policies and goals, and implementation programs, environmental legislation, environmental policy trends	1 time/year	Department Head
New hire onboarding	Policy, environmental management Status, Status of air emissions and air pollution prevention facilities, environmental management	When hired	New hires
Departmental training	Policies and goals, and departmental environmental impact factors, Departmental goals and action plans, emergency response, and other training	1 time/year	All employees
Statutory Education	Statutory environmental training (air, waste, etc.)	As required by statutory regulations	Administrators
Environment-related Technical Training	Environmental policies and regulations, air pollution control technologies, Environmental analysis, Establishment and Implementation of environmental management system, Waste treatment technologies, etc.	If necessary	Relevant person in charge

Environment and safety training progress

Training name	Date	Number of participants	Frequency
Environmental and safety related special training	January through December	1,044	When necessary
Onboarding environmental training	January through December	163	When necessary
Regular safety and health training	January through December	11,442	Quarterly
On-hire health and safety training	January through December	340	When necessary
Safety training after changing tasks	January through December	72	When necessary
Supervisor training	April through June	119	1 time/year

Environmental

S.H.E (Safety, Health, and Environment) Management

S.H.E Management Activities

Rewards for environment and safety management performance

Hanwha Systems operates an evaluation and reward system to encourage employees' voluntary participation in operating a site-centered safety, health, and environment management system and preventing accidents. KPIs in the field of Environment and Safety Management are set and evaluated for executives and department heads, and environmental safety evaluations are also conducted regularly for suppliers. The evaluation is based on a comprehensive evaluation of the performance of environmental management activities, including environmental improvement performance and eco-friendly activities for one year. In 2023, based on the results of the supervisor's evaluation, we awarded the Safety & Environment Exemplary Award to two employees, two teams and two departmental heads and six employees of suppliers, and delivered gifts worth a total of KRW 3 million for encouragement.

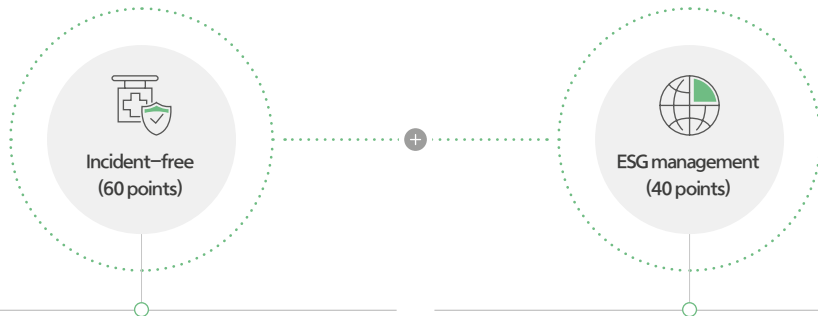


Environment and Safety Management Award Ceremony

Detailed metrics(2023)

Category	Description	Targets						
Executives	<ul style="list-style-type: none"> Evaluate items: Criteria for Existing Sites 	Heads of business sites, Lab Directors, etc.						
			<table border="1"> <tr> <td>Accident-free</td> <td>ESG management</td> </tr> <tr> <td>60</td> <td>40</td> </tr> </table>	Accident-free	ESG management	60	40	
Accident-free	ESG management							
60	40							
Supervisors (Department Head)	<ul style="list-style-type: none"> Evaluation item: Accident prevention + compliance 	Production, technology, R&D, quality, etc.						
			<table border="1"> <tr> <td>Accident-free</td> <td>Compliance</td> <td>On-site inspection</td> <td>Target Management</td> </tr> <tr> <td>40</td> <td>25</td> <td>20</td> <td>15</td> </tr> </table>	Accident-free	Compliance	On-site inspection	Target Management	40
Accident-free	Compliance	On-site inspection	Target Management					
40	25	20	15					

Employee environment and safety assessment details

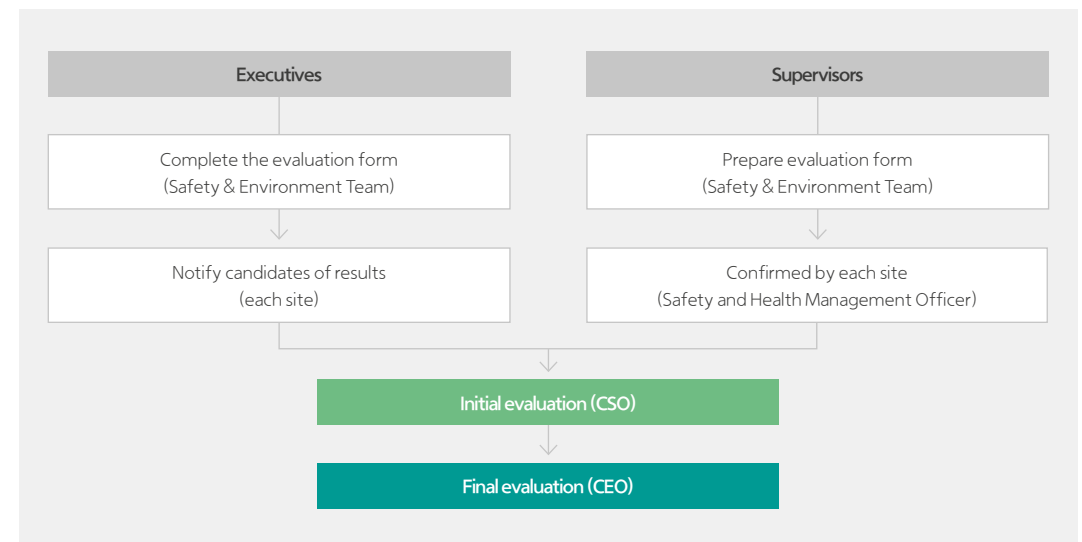


- Serious disasters: -30 points
- Industrial accidents: -15 points (deducted per case)

- Wastewater emissions (10): Reductions compared to the last 3 years
- Air pollutants (10): Below 30% of the emission standard
- Waste recycling rate(10): Recycling rate of 95% or higher
- GHG emissions(10): Year-on-year reduction of 5.0%

* Deductions are combined for both accidents and serious accidents

Environment and safety management performance evaluation process



Environmental

Environmental Impact Management

Environmental Impact Reduction Activities

Implementing environmental impact assessments and energy aspect assessments

Hanwha Systems conducts annual environmental impact assessment and energy aspect assessment for its Gumi site in accordance with ISO 14001 and ISO 50001 certification regulations. The assessments are conducted in accordance with the environmental impact registration rules and energy aspect assessment rules established by the organization in consideration of the environment, safety and management manual standards. The subject of evaluation includes air, water, waste, ecosystem destruction, and energy affected by the organization's activities, design, products, and services. By evaluating the frequency and level of their environmental and energy impacts, the assessment intends to derive improvement items.

Green purchasing guidelines

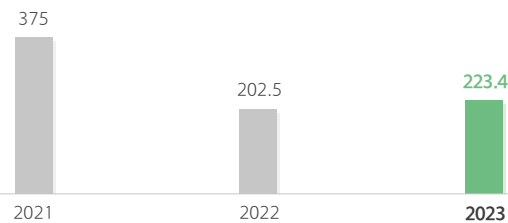
Hanwha Systems has established Green Purchasing Guidelines and recognition criteria to prioritize eco-friendliness in the entire process of product production and to develop eco-friendly products and solutions with our suppliers. In accordance with the guidelines, we consider the eco-friendliness of all suppliers and raw materials that affect product production by prioritizing the purchase of eco-certified materials and equipment and high-efficiency and environmentally improved facilities. We also support our suppliers in acquiring environmental management certification programs to expand environmental management throughout our entire supply chain.

Green procurement direction

Category	Criteria
PC/OA	<ul style="list-style-type: none"> Standby Power Reduction PCs (Eco-certified products when searched for products with excellent standby power reduction) Minimum Green Reference Product—Windows OS (when searched for minimum green reference product)
Solar, renewable energy business	<ul style="list-style-type: none"> Solar-related business purchases Renewable Energy Facility Certification—Solar Module, Inverter Purchase Amount (KS Certified Facility Search)

Green purchase performance

(Unit: KRW 100 million)



Green procurement direction



Environmental

Environmental Impact Management

Environmental Impact Reduction Activities

Green business and investing

Hanwha Systems is continuously investing in solar power generation facilities to participate in the government's initiatives for expanding the use of renewable energy. To date, we have built 137.8MW of ground-based and roof-based solar power generation facilities. In particular, in 2023, we successfully completed a 35.5MW floating solar project in Hasa-ri, Younggwang-gun, and for the first time in Korea, we applied a buoyant structure that can be used in seawater (salt water) and completed a power plant with excellent corrosion stability.

Hanwha Systems also recognizes that the development of clean technologies and solutions is an essential element for sustainable growth. Therefore, we have set 'Promoting an eco-friendly future business' as one of our ESG management strategy tasks and are consolidating our position as an eco-friendly business through investments in the Urban Air Mobility (UAM) business and solar power generation facilities. In particular, UAM is expected to contribute to the beneficial changes in the world as an urban eco-friendly transportation system with low noise and low carbon emissions, and we will contribute to the achievement of national GHG targets by revitalizing the UAM ecosystem.



Floating solar power plant in Yeonggwang-gun



Roof-style solar power plant in Icheon City

Green investments and R&D performance

Category	Unit	2021 Performance	2022 Performance	2023 Performance	2024 Goals	Remarks
Investment	KRW 100 million	28.5	25.4	20.2	22.2	Solar panels, electric car charging stations, Jukjeon Data Center's old equipment replacement, Cloud investment, etc.
R&D	KRW 100 million	4.9	12.6	16.5	18.2	UATM business R&D expenses, etc.
Total	KRW 100 million	33.4	38.0	36.7	40.4	

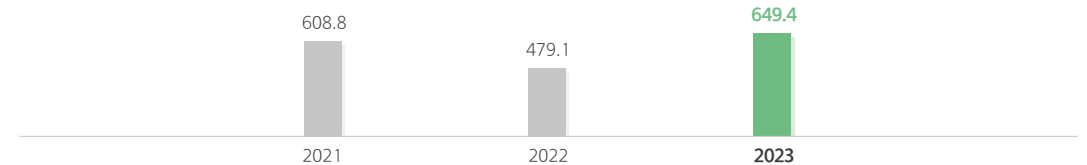
* Changes to the calculation of green investments and R&D expenses from the previous year's report

Eco-friendly investment, R&D calculation criteria

- Estimation of the cost of investments in green businesses, green power generation, solar, hydro, renewable energy generation, and cloud infrastructure
- Environmental pollution prevention facilities, chemical system development, and operating costs
- Replacement of aging infrastructure, high-efficiency power and LED fixtures
- Replacement of aging power equipment, such as chillers, UPSs, etc.
- Cost of installing EV charging stations

Eco-friendly sales performance

(Unit: KRW 100 million)



Green revenue criteria

- Calculate revenue generated from renewable energy generation and carbon emission management solution related businesses such as eco-friendly power generation, solar power, hydropower, etc.

Environmental

Environmental Impact Management

Contaminant Management

Air pollutant management

Hanwha Systems has established policies to minimize air pollution emitted from its sites and manages air pollution emission data through semi-annual self-assessments. In particular, we monitor the concentration of air pollutant emissions by setting our own standards (within 50%) that are stricter than the legal emission allowance standards set by the Ministry of Environment. In addition, we strive to reduce air pollution and improve air quality by replacing activated carbon in adsorption towers, checking the performance of prevention facilities, and conducting daily inspections. Furthermore, we conduct air pollution emergency drills to minimize damage and systematically respond in the event of an air pollution emergency.

Internal air emission allowance criteria (Unit: mg/m³)

Category	Item	Legal standards	Internal standards	By emission allowance criteria		Remarks
				nonconformities	Emergencies	
Particulate matter	Dust (mg/m ³)	30 or less	15 or less	15-30	Over 30	Manage other contaminants within 50% of the legal limit based on internal standards. In the case of exceeding legal thresholds, it is defined as an emergency



Replacement of adsorption tower activated carbon (1st and 2nd half)

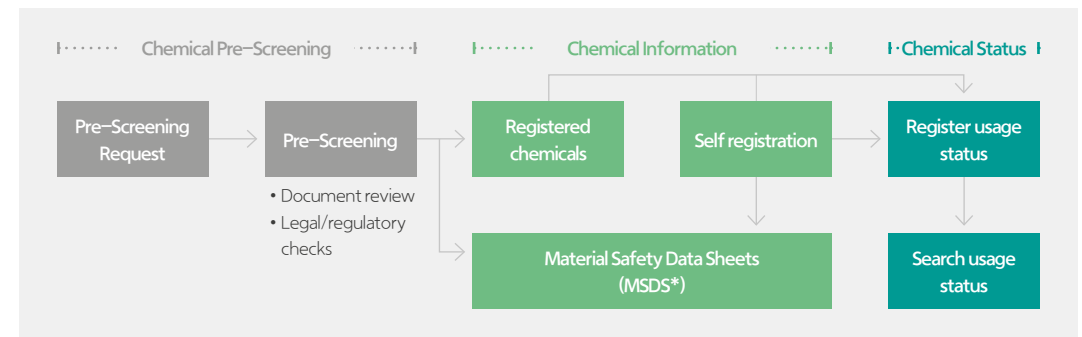


Checking prevention facilities

Developing and operating a chemical management system

In March 2023, Hanwha Systems developed an in-house chemical management system to systematically respond to regulatory requirements and efficiently manage the entire process of chemicals. Through the system, we systematically manage the entire process of chemicals from receipt to use according to each process. All chemicals used at our sites are required to undergo prior audits by the personnel in charge of the Environment, Safety, Health, and Environment (EHS) and Fire Suppression before entering the company. In addition, the details of chemicals are automatically stored in the system DB and managed in real time, including the usage status of each department. Through this, we strive to minimize the risk of accidents by identifying and eliminating or managing potential factors of chemicals to ensure the safety of workers.

Chemical Management Process



*MSDS : Material Safety Data Sheets

Managing and inspecting chemicals

Hanwha Systems conducts chemical risk and environmental impact assessments to minimize environmental impacts on ecosystems and people. Every year, we conduct a survey of the chemicals used at our sites to manage the risks and hazards of using not only newly registered chemicals but also existing registered chemicals. In addition, we check the status of chemical management and handling in each department through on-site inspections and special inspections, and in 2023, we provided training for 628 chemical handlers to manage chemicals. We also regularly conduct emergency response drills to minimize the spread of accidents such as chemical leakage and ensure the safety of workers in the event of an emergency.

Environmental

Environmental Impact Management

Contaminant Management

Water pollution control

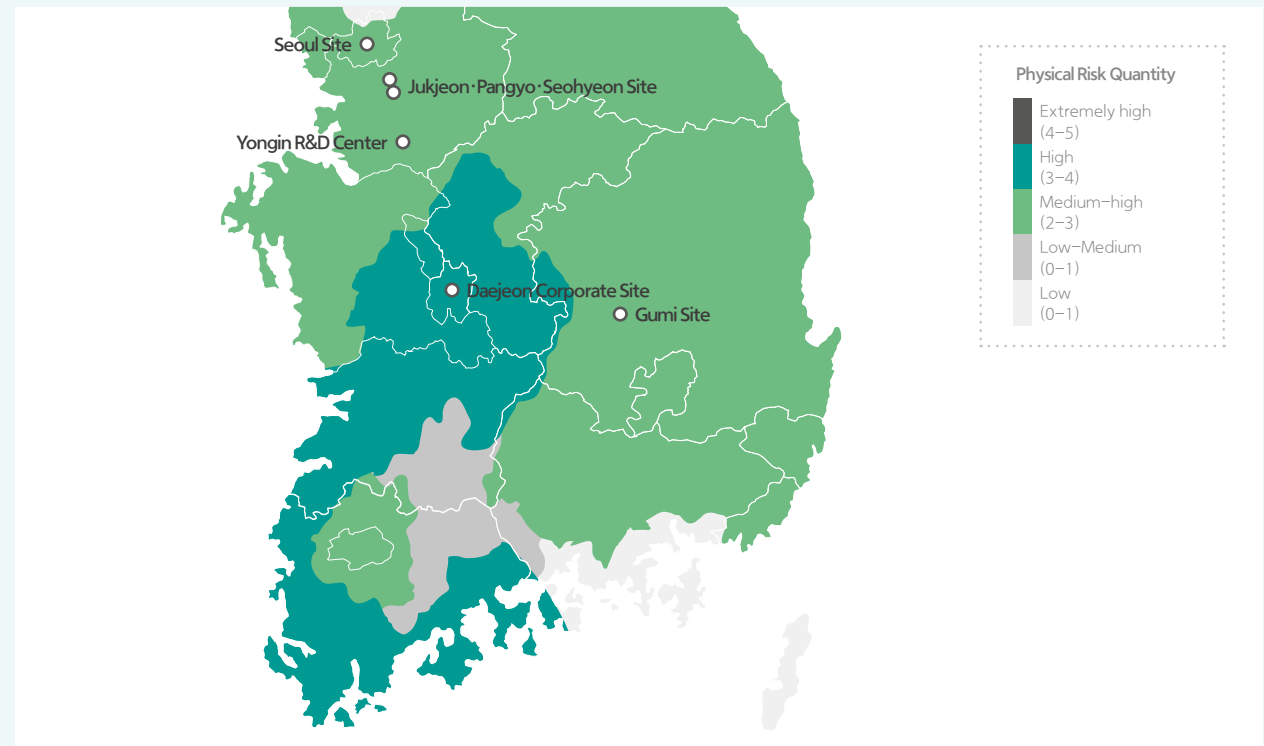
Hanwha Systems is a site that does not discharge water pollutants, but we are striving to protect water resources to fulfill our environmental and social responsibilities. For example, recognizing the problems of water pollution, corrosion of the undercarriage of vehicles, and concrete damage caused by conventional snow removal agents, we use eco-friendly snow removal agents made from starfish, a marine waste product. By using eco-friendly snowmelt, we are trying to reduce marine waste caused by starfish and solve problems such as car corrosion and building concrete damage.

CASE

Water Stress Analysis

According to the 'State of Climate Services 2021 (Water Report)' published by the World Meteorological Organization (WMO)¹⁾, the number of people in the world experiencing water scarcity is expected to exceed 5 billion by 2050. In addition, water-related risks are increasing due to external environmental changes, such as water pollution due to urbanization and decreasing water resources due to climate change. Therefore, Hanwha Systems recognizes the importance of water resource management and regularly conducts water stress analysis for domestic sites using the Aqueduct Water Risk Analysis Tool provided by the World Resources Institute (WRI)²⁾. Water stress is measured as the ratio of demand to available water supply, with higher stress indicating higher competition among water users. In 2023, the analysis was conducted for all domestic sites, and the Daejeon Site was identified as High and the rest of the sites as Medium-High. Considering the potential risk of water stress, Hanwha Systems plans to monitor water usage management at its sites, not just those with a High level, and discover various ideas to reduce water usage in preparation for future water shortages.

1) WMO: World Meteorological Organization
2) WRI: World Resources Institute



Environmental

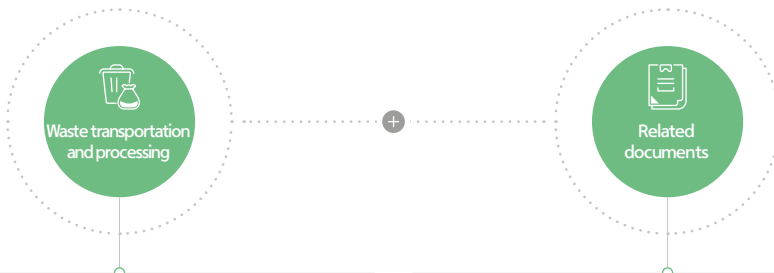
Environmental Impact Management

Waste Management

Waste management policies

Hanwha Systems strives to minimize waste generated from its business activities and increase the recycling rate. Through the “Allbaro” system, a comprehensive waste management system, we monitor the entire process of waste discharge in real time and transparently disclose the discharge status. In addition, we review the appropriateness of transportation and processing for waste handlers and recyclers on a semi-annual basis and request improvements. In addition, general waste is molded into solid fuel and reused as auxiliary fuel, and recyclable waste such as glass is processed into renewable raw materials to increase the recycling rate.

Waste disposal contractor’s regular inspection check-list



- Whether collected and stored by type/composition
- Whether transported and processed by type/composition
- Whether the cargo bin cover is installed
- Treatment plant leachate spills, etc.

- Representative training certificates
- License Surety Bonds
- Vehicle registration
- Waste disposal permits, etc.

Waste management solutions: life cycle assessment for Environmental Labeling (LCA)¹⁾

Hanwha Systems is continuously improving its work processes to minimize waste generation and minimize environmental impact during the design and production of products. To quantify the raw materials, energy, and pollutants emitted during the entire production process, we utilize Life Cycle Assessment (LCA) software (COOL) to assess potential environmental impacts. We have also established regulations on how to treat each type of waste, and strive to strengthen waste management through regular training and inspection activities for employees.

1) Life Cycle Assessment

Waste reduction activities

To reduce waste, Hanwha Systems is conducting various activities such as zero disposable product campaigns, identifying items that reduce waste generation, and reducing leftovers. At the Yongin and Pangyo Sites, we implemented the Zero Paper Cup Campaign, saving 3,230 plastic cups in 2023. At the Gumi Site, we introduced insulated bags to replace disposable bags, and we encourage the use of multi-use cups (recycled ECO cups) in the office. We also held a tumbler donation event and donated 123 unused tumblers to eco-friendly companies, and at the ICT site, we purchased a tumbler washer to minimize the use of disposable products.



Automatic tumbler washing machine at ICT site



Tumbler donation event at Gumi Site

Managing raw and recycled material usage

Hanwha Systems discloses the major raw materials for each business segment in its business reports. However, in the defense segment, the main purchased items consist of electronic assemblies and semi-finished products, and due to the characteristics of the defense business, such as security requirements as well as sensitivity issue with divulging trade secrets concerning individual unit prices, the amount of material usage cannot be disclosed. In the ICT segment, the main revenue is the provision of IT service services, and the proportion of goods purchased within projects cannot be separately calculated. In addition, recycled raw materials are not used due to the characteristics of the defense and ICT businesses.

Environmental

Environmental Impact Management

Managing Energy Usage

Building an energy management system

Hanwha Systems conducts an energy impact assessment that analyzes energy consumption by scope 1 and 2 and derives improvement tasks. Based on the assessment results, we set annual energy use improvement targets and promote reduction activities. In particular, in 2023, we established an energy usage monitoring system to aggregate usage on a monthly basis and implement improvement measures through quarterly analysis and reporting. Furthermore, we have a company-wide annual energy rationalization plan, and in 2023, we implemented reduction activities in boilers, hot and cold water heaters, restaurants, corporate vehicles, and facility power, saving approximately KRW 16 million per year in energy use.

Replacing old and inefficient equipment

Hanwha Systems is gradually replacing old and low-efficiency facilities at its sites to reduce electricity consumption. We check the status of transformers every year and replace transformers that need to be replaced or remove unused transformers to improve power efficiency. We are also replacing electrical equipment used at sites, such as large motors, with high-efficiency products. In particular, in 2023, we invested about KRW 2.85 billion to replace emergency power supply facilities at data centers, and we expect to improve cooling efficiency by improving the facility operation structure.

Reducing carbon emissions at infrastructure operations facilities

Hanwha Systems is managing the temperature and humidity of the Site with optimal energy by adjusting the operating hours of air conditioners and boilers by season. We are also contributing to environmental protection by changing the settings of air conditioner inverters to reduce GHGs that can be generated from heating and cooling. In addition, we are reducing electricity usage by replacing the existing lights with LED and solar streetlights, and reducing the number of fluorescent lights by conducting a detailed analysis of illumination levels.

Expand zero-emission vehicles

To minimize GHG and air pollutant emissions from corporate business vehicles, Hanwha Systems is gradually transitioning to eco-friendly vehicles such as electric vehicles. As of the end of December 2023, we had 6 eco-friendly vehicles (electric, hydrogen, and hybrid) out of 85 total corporate vehicles, and we plan to gradually convert vehicles that need to be replaced to eco-friendly vehicles in the future. In addition, to build charging infrastructure for electric vehicles, we installed three 7KW fast chargers at the Jukjeon Data Center in 2023 and two at the Yongin Site in 2024 to promote eco-friendly transportation.



Electric vehicle chargers at Yongin Site



Electric vehicle chargers at Jukjeon Data Center

Status of eco-friendly cars

Total number of company cars	Number of eco-friendly cars	Percentage of eco-friendly cars
85	6	7%

Environmental

Environmental Impact Management

Managing Energy Usage

Renewable energy transition

Hanwha Systems is striving to save energy by utilizing solar power by installing 9.45 kWh of solar power at the Jukjeon Data Center and 12.48 kWh at the Yongin R&D Center. In addition, the company plans to install 400 kWh of solar power at the new Gumi site, which will be completed in 2025, and plans to secure intelligent building and energy efficiency rating certifications.



Solar power installation at Yongin Site



Solar power facility at Jukjeon Data Center

Status of renewable energy generation

Category	Energy sources	Facilities	Unit	2021	2022	2023
Yongin Site	Electricity	Solar power panel	MWh	-	5	18.6
Jukjeon Data Center			MWh	10.6	11.1	10.5
Total			MWh	10.6	15.6	29.1

GHG Reduction Activities

Adequate seasonal business attire for the summer and the winter

Hanwha Systems is adjusting the office temperature in compliance with government policy in the summer, and is promoting the wearing of cool business attire (short sleeves, shorts) to reduce the inconvenience to employees. In winter, we also adjust the office temperature in accordance with government policy to reduce heating expenses and reduce GHG emissions. Through these efforts, we are trying to ensure both environmental protection and employee comfort.

Expanding video conferencing and video interviews

In order to reduce GHGs generated by traveling to and from meetings, Hanwha Systems has established video conferencing infrastructure in 56 meeting rooms across all its sites. Furthermore, we have established and operated VC system that allows employees to attend meetings from their personal desks using internal messengers. In addition, since 2020, we have been conducting video job interviews to reduce GHGs generated from new employees recruitment activities.

Operating 'No driving on the 10th day' system

Hanwha Systems' Gumi site implements a 'No driving on the 10th day' policy for vehicle access. The policy aims to reduce traffic congestion and GHGs in the city, and if the last digit of the license plate number is the same as the last digit of the day, the parking lot blocker is activated to restrict the vehicle's entry. This promotes the use of public transportation and contributes to GHG reduction by encouraging all the employees' participation.

Providing shuttle bus service

Hanwha Systems operates a shuttle bus system to reduce GHG emissions generated by employees' use of their own cars. Each site operates a shuttle bus and has established and coordinated separate shuttle bus routes to ensure efficient shuttle bus operation in consideration of demand. This minimizes traffic congestion in the city center caused by the use of private cars and promotes employees' use of public transportation, contributing to environmental protection.

Transition to electronic disclosure for shareholder meeting mails

Hanwha Systems replaced the convening notice and shareholder communication with electronic disclosure by the 23rd Annual General Meeting of Shareholders, reducing about 35,000 A4 sheets of paper distributed through conventional shareholder meeting mailings each year. Since one A4 paper uses about 10 liters of water and about 2.88 grams of carbon dioxide in its manufacturing process, we have saved 350,000 liters of water and about 100 kilograms of GHGs annually. We are also reducing GHGs by reducing the amount of paper generated by conventional voting through the introduction of electronic voting.

Making calendars and diaries from eco-friendly materials

Hanwha Systems contributes to environmental protection by replacing the calendars and diaries distributed to employees every year with eco-friendly materials. We are using certified raw materials such as plant-based eco-friendly fabric (Eco Fabric), paper from sustainable forests (FSC), and eco-friendly soybean oil printing (Soy Ink). We will continue to identify items to switch to eco-friendly materials for products used at our sites in order to minimize the burden on the environment caused by the production and disposal of products.

Environmental

Respect for Biodiversity

Biodiversity Impact Assessment

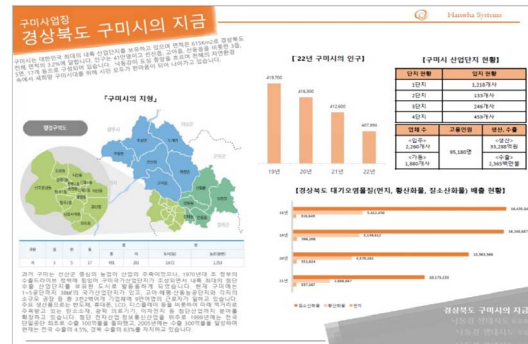
As it recognizes the importance of protecting natural ecosystems, **Hanwha Systems** has taken measures to investigate its operation's potential impacts on biodiversity in the areas around its sites to minimize adverse effects. Each site publishes an ECOMAP every year by investigating local characteristics (population, number of businesses, and environmental-related companies), topographical characteristics, and ecological maps (mammals, birds, insects, etc.). For example, in the case of Pangyo R&D Center, we identified the biodiversity of birds, mammals, and other species living in the nearby Unjungcheon (stream) and established an environmental protection plan to carry out environmental cleanup activities. We will continue to monitor the impact on key species and habitats in the area near our site based on the ECOMAP and carry out management activities.



<Terrain Characteristics in ECOMAP> Pangyo R&D Center: Unjungcheon



<Ecological Map in ECOMAP> Pangyo R&D Center: Unjungcheon



<Terrain Characteristics in ECOMAP> Gumi site: Nakdong River



<Ecological Map in ECOMAP> Gumi Site: Nakdong River

Ecosystem Conservation Activities

Based on ECOMAP, each of **Hanwha Systems**' major sites selects places where habitat conservation is needed and regularly conducts activities to improve the ecological environment. In particular, **Hanwha Systems** conducts habitat conservation activities along the Nakdong River every year on World Water Day. The Nakdong River is home to otters, which are managed as a nationally protected species by the National Biological Resource Center (Biodiversity of the Korean Peninsula), and is an area where water quality improvement activities are needed to increase the population of nationally protected species. In response, 48 employees participated in throwing EM (Effective Microorganisms) soil balls to enhance the diversity of aquatic biodiversity and preserve habitats. By scattering soil balls containing EM, the EM is to be distributed evenly in the soil beneath the river, which is expected to improve water quality by suppressing harmful bacteria in the soil and promoting the decomposition of organic substances. Going forward, we will continue to improve water quality through such activities such as throwing EM soil balls to preserve the habitat of nationally protected species. Also, we are participating in the '1 Company 1 River Cleanup Campaign' organized by Gumi City and conducting river cleanup activities.



Cleanup activities along the Nakdong River on World Water Day



'1 Company 1 River Cleanup Campaign' by Gumi City

Environmental

Respect for Biodiversity

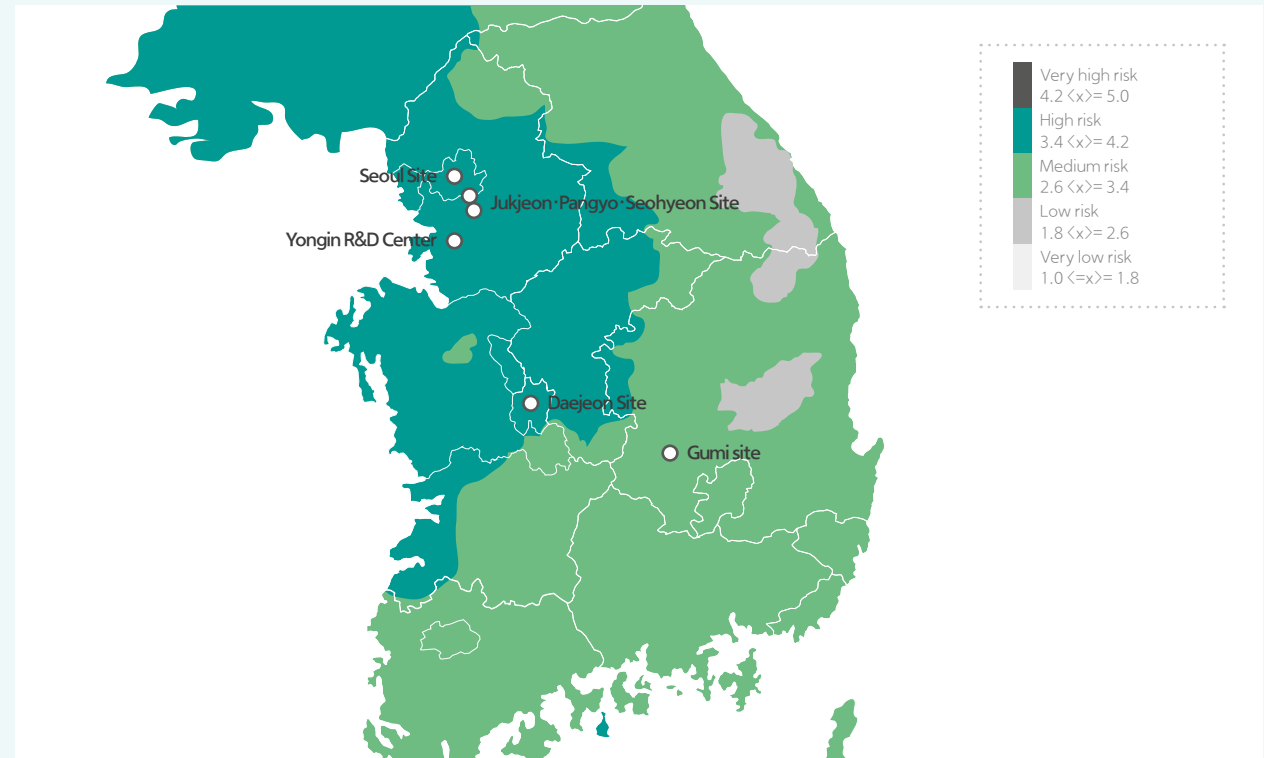
Biodiversity Impact Assessment

CASE

Biodiversity risk analysis

According to the 'Global Life Report 2022' published by WWF¹⁾, the size of wildlife populations observed from 1970 to 2018 has decreased by an average of 69%, mainly due to habitat degradation and loss, excessive resource utilization, and environmental pollution. In order to protect biodiversity in ecosystems near our sites and minimize the environmental impacts of our business activities, including our processes, we conducted a biodiversity physical risk analysis using WWF's Biodiversity Risk Filter (BRF). Biodiversity physical risk refers to pressures on biodiversity, such as invasive species and pollution, and events that negatively affect biodiversity, such as landslides and heat waves. We conducted a physical risk analysis for all production sites in Korea, and the results showed that all sites are at medium risk (3.0 to 3.15). We will continue to strengthen monitoring of biodiversity near our sites and manage risks through regular ecosystem protection and restoration activities.

1) WWF: World Wildlife Fund



Social

Hanwha Systems supports the growth of its employees based on the Great Challenger’s Ideal Talent model and enhances their motivation based on fair performance evaluations. We also respect the human rights of internal and external stakeholders, prioritize workers’ health and safety, and pursue a shared growth path by working closely with suppliers and local communities. We will continue to take the lead in creating differentiated social values based on our corporate spirit of ‘Going Further and Together’.

KEY PERFORMANCE

Rated ‘Excellent’ for the second consecutive year in Korea’s Shared Growth Index Assessment



0 serious accidents



Establishment of Sustainable Supply Chain Management Policy and Human Rights Management Charter



Certified as an Outstanding Employer for Discharged Soldiers and recognized for supporting military employment



Social

Talent Management

Talent Management System

Talent

In August 2023, Hanwha Systems established a new talent slogan, "Great Challenger," to become a company of global top talents. Based on Hanwha's core values of Challenge, Commitment, and Integrity, we aim to attract talented people with a mindset of ownership, superior differentiation, and embracing change. Based on the ideal talent concept, we are striving to recruit and nurture those people who can share our corporate core values and practice the principles of behaviors defined accordingly.

Talent development

Hanwha Systems regularly establishes a talent development plan every year to recruit new talents with specialized skillsets and strengthen the capabilities of existing employees. We develop quality training contents and conduct efficient trainings utilizing online and offline methods. In the second half of each year, we conduct interviews and surveys to investigate the demand for trainings needed to achieve business and departmental goals, and reflect the results in our annual training plans to provide training programs that are of practical benefit to the business.

Hanwha Core Values

Challenge

We don't rest on our laurels; we strive to be the best thru change and innovation.

Dedication

We value the relationships we have with our company, customers, and coworkers, and we're committed to achieving the bigger goal thru devoted efforts.

Integrity

We act with the sense of pride, in principled way, with integrity and fairness.

Hanwha Systems' Ideal talent

GREAT CHALLENGER

Responsible immersive ownership

We always take a long-term view of business performance and rewards; take a full ownership of our work, making responsible decisions; and act quickly with no procrastination to move faster than our competitors.

Differentiation that breaks the mold

We have a bold goal to disrupt the conventional wisdom in our industry. We focus on one thing, make a difference in the details, and consistently produce results that are one step ahead.

Embracing change to seize future opportunities

We don't rest on our past laurels in an ever-changing marketplace. We face the harsh realities of the world and proactively prepare for the future to create new opportunities.

Social

Talent Management

Hiring Top Talent

Employment-linked internship programs

Hanwha Systems operates a short-term internship program for recent graduates to recruit talented employees. Through the internship program, we have been able to foster talents with the competencies suitable for our company as these interns could obtain on-the-job experience prior to their hiring, which contributed to enhancing the company's human resource competitiveness. In 2023, a total of 250 people who participated in the internship program were converted into new employees, strengthening the link between internship and employment.

Recruiting thru on-line interviews

Hanwha Systems operates a transparent recruitment process for both new and experienced employees to secure outstanding talent across various fields. The recruitment process is managed through Hanwha Group's recruitment portal (Hanwha-in). In the first half of 2023, to enhance applicant convenience and the efficiency of the recruitment process, recruitment briefings and interview screenings were conducted online.



Hanwha Group Recruitment Portal

Establishing/supporting/agreements with university "contracting" departments to nurture talents with specialized knowledge in specific jobs

In order to foster experts in the satellite field, Hanwha Systems' flagship business, we have established and supported contracting departments such as Yonsei University's Department of Satellite Systems, KAIST's Future Space Education Center, and Gyeongsang National University's Future Space Education Center to foster core talents to lead the future space business. We have also established and operated the Artificial Intelligence Application in Defense Program(Contract-based) at Seoul National University of Science and Technology to foster defense AI talents, and are strengthening cooperation to foster talents with convergence of defense and ICT capabilities. In 2023, five excellent job experts in the satellite field were hired through the contract-based program.

Hanwha Systems Global Forum 2023

In July 2023, Hanwha Systems held a forum for global key talents in the satellite and UAM fields in Los Angeles, USA, to expand its new business. We invited 10 leadership level persons (C-level, team leaders) and 10 working level persons (with relevant experience, Ph.D. or above) from global companies to share the direction and vision of the company's new business. Through this event, we identified external trends related to the new business and conducted networking activities with experts in the field to attract the top talents

Internal referral program

Hanwha Systems operates an internal referral system for career recruitment to secure excellent talents in future strategic technologies such as AI and machine learning. Through the voluntary talent referral by the employees, the company has secured a talent pool with proven excellence. In 2023, 90 people were hired through the internal referral system, and the company provided incentives to employees who recommended talented people of Assistant Manager or above level if those hired thru the employee referral stayed for more than three months at the company.

Operation of an interviewer training program

Hanwha Systems regularly conducts interviewer training for all interviewers. Only interviewers who have completed the training are allowed to participate in interviews, ensuring that they follow a standardized interview process and evaluate all applicants fairly. In 2023, we held one interviewer training session and 20 interviewers completed the training.

Social

Talent Management

Employee Empowerment Programs

New hire onboarding program

Hanwha Systems conducts the Hanwha Pre-Manager Program (HPMP), which is made up of in-house introductory training and group introductory training to prime the new hires' mindset as a corporate worker and ensure their early adaptation to the organization and quick utilization. To complete the HPMP program, new employees are required to participate in a total of 130 hours of mandatory trainings in about one and a half years of time since their on-boarding, which include basic skills training such as financial accounting basics and logical thinking, to individualized job training plans, and at least six times of team coaching. This helps new employees understand the company's culture and values and grow quickly in the workplace. In addition, for new employees with prior job experiences, we provide career introductory training within two months of joining the company to help them understand the values that the organization collectively pursues and settle into the organization through training on the group history and core values.

Developing the next generation of leaders and global leaders

To foster young and outstanding leaders, Hanwha Systems selects and manages candidates for the next generation of leaders and provides them with systematic leadership perspective development programs to enhance their leadership capabilities and job expertise. Based on the individual career development programs for next-generation leaders, we provide customized development opportunities such as domestic and overseas degree programs, industry-specific training, and mentoring. In addition, we operate the Global Talent Program (GTP), which dispatches young leaders to overseas subsidiaries and branches of Hanwha Group for training and education. The program consists of three months of intense training in advance, followed by one to two years of expatriation to Hanwha's global business centers in the U.S., Germany, China, and Japan.

Global Language Programs

Since 2023, Hanwha Systems has been operating Hanwha Systems(HSC) Global Leader Program to secure a pool of expatriate and dispatched employees with a view to expanding its overseas business. Employees who achieve target language grades through the program are provided with language improvement expenses to strengthen their language skills. In addition, employees who have received global language training within the year are given a pre-test before entering the training and a post-test at the end of the training to verify the effectiveness of the training and improve the quality of the training.

Provide training to enhance job skills

Hanwha Systems supports employees' growth into job experts through the self-directed MOIM system, which disseminates knowledge based on the in-house instructor system, sharing know-how through Skill-Up mentoring, and providing customized online content. In 2023, we held special live lectures on technologies such as ChatGPT and giant artificial intelligence models to help employees understand new technology trends, and we support in-house group training and e-Learning training by module and level to foster SAP experts. We also provide secure coding training to development staff to proactively prevent security incidents caused by vulnerabilities in the development environment.

Graduate School Program

Hanwha Systems has implemented a graduate school support programs to foster human resources in alignment with the company's mid- to long-term strategy and present a vision for the growth of talented employees. Every year, we select candidates among regular employees who have completed a certain period of service through documents and interviews, and support them with graduate school tuition fees. In 2023, 14 candidates were selected, and we expect them to strengthen the company's capabilities, help secure in-house experts, and expand human networks when they complete master's and doctoral programs in various fields such as defense specialization (space defense, satellites, etc.), artificial intelligence, communication networks, big data, and information strategy.

Professional Licensure Assistance Program

Hanwha Systems operates a professional qualification acquisition support system to strengthen business competitiveness and help employees improve their expertise. We categorize certifications according to business necessity and difficulty (pass rate), and actively support education expenses and congratulatory and examination fees depending on the level. In 2023, we supported employees to obtain a total of 272 certifications using this program.

AI Empowerment

In 2022, Hanwha Systems signed an MOU with AI education company 'Institute for All' to train AI experts in order to improve the employees' understanding of AI technology and enhance their capabilities at R&D Centers when performing related duties. In 2023, we introduced and operated AIFEL, a practice-based self-directed AI education tool, and are continuously identifying new AI contents such as generative AI (Chat GPT) to enhance our education roadmap.

Retiree Assistance Program

Hanwha Systems provides post-retirement life planning and re-employment support services for employees over the age of 50 who are expected to retire non-voluntarily. The training curriculum consists of seven modules (Change Management, Life Planning, Self-Diagnosis Life Check, Career Understanding, Career Deepening, Self-Development, and Career Design) and is offered online to make it more convenient for participants to take the course according to their schedule and circumstances. The program provides employees with career transition opportunities after their retirement and seeks to help them lead more stable and happier retirement life.

Social

Talent Management

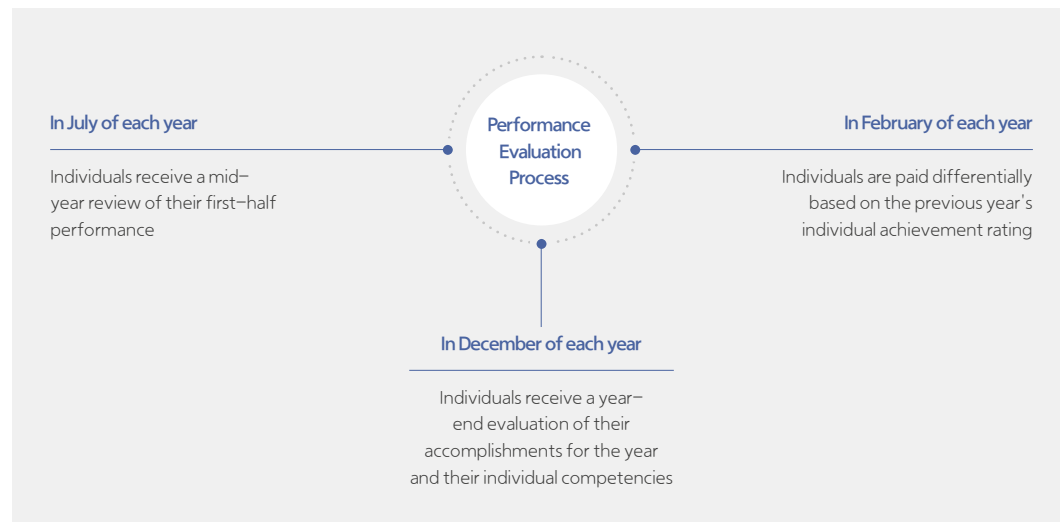
Fair Performance Evaluation and Compensation

Performance evaluation and compensation systems

Hanwha Systems operates a compensation system that applies the principle of fair evaluation for all employees regardless of gender or position. Performance evaluation (performance and results based on KPIs) and competency evaluation (general/leadership/professional skills) are conducted twice a year to assign differential grades consisting of five levels: S, A, B+, B, and C. In addition, through feedback and appeal procedures based on the evaluation results, we secure transparency in the compensation system and encourage employees' motivation for their long-term growth. Performance evaluation ratings are used for performance pay, competency evaluations are used for training and job transfers, and overall evaluations are used for promotions and wage increases.

In terms of compensation, we operate various monetary compensation systems to motivate continuous performances as well as short-term achievements. We have established an immediate reward system for short-term achievements by applying differential rates of performance-based pay and individual base wage increases to enhance the level of performance achievement.

Hanwha Systems Performance Evaluation Process



Employee welfare benefits

Hanwha Systems provides various welfare benefits to help employees feel proud of the company by creating a better working environment. In particular, we actively implement policies to support childbirth and child rearing to create a family-friendly culture, and in recognition of these achievements, we were certified as a family-friendly organization by the Ministry of Gender Equality and Family in 2022 (validity period: Dec 1, 2022 ~ Nov 30, 2025). We also regularly conduct labor-management consultations to improve employee welfare through Work Councils.

Major welfare benefit programs

Category	Programs
Creating a family-friendly culture	<ul style="list-style-type: none"> Family Care Leave Paternity leave Reduced work hours, such as for family caregiving Refresh Vacation and sabbatical programs Hanwha Resort, Equestrian Center Benefits Running a PC-off system
Supporting employee wellness	<ul style="list-style-type: none"> Group accident insurance Providing health screenings for employees and their spouses Integrated Psychological Support Counseling Program
Supporting childbirth and parenting	<ul style="list-style-type: none"> Time-off and reimbursement for fertility treatments/procedures Congratulations on the birth of a child In-house daycare centers and foster care programs Pregnancy and maternity packages with work support items and congratulatory gifts (for both men and women) Pregnancy/Parental Leave Providing paid lactation time Supporting child's education
Flexible work arrangements	<ul style="list-style-type: none"> Flexible hours Staggered commuting Discretionary (deemed) working hours Flexible working hours

Social

Talent Management

Fair Performance Evaluation and Compensation

Building a culture of challenge (Future Changer)

Hanwha introduced the Future Changer system in the fourth quarter of 2023, which is a program to build a corporate culture to embrace challenges, meaning that the employees are encouraged not to be afraid of a failure, while being motivated to strengthen knowledge transfer through the experiences of senior employees. Through the program, success and failure cases are shared from the bottom-up, and rewards and mileage points are given to teams and employees who excel in challenging tasks at the business unit level every quarter to encourage their performance.

Future Changer selection criteria

- ① Employees who take initiative to set and achieve high-level goals
- ② Employees who are open-minded and creative in thinking outside the box to identify new opportunities
- ③ Employees who have taken on new challenges or lofty goals and gained valuable experience despite and thru the failure.

Stock grant scheme

Hanwha Systems revised its executive remuneration regulations in 2020 and granted restricted stock units (RSUs) to its executives in order to enhance management accountability, give better motivation and maintain competitive compensation based on their mid-to-long term performances. RSUs can be converted into shares 5 to 10 years after the grant date, depending on the their position. In addition, Hanwha Systems operates the Employee Stock Ownership Plan for employees through the Employee Stock Ownership Association. Subscription for the employee stock ownership and loan interest are provided to employees who wish to participate. The stock grant scheme's purpose is to motivate all the employees to take ownership and increase corporate value.

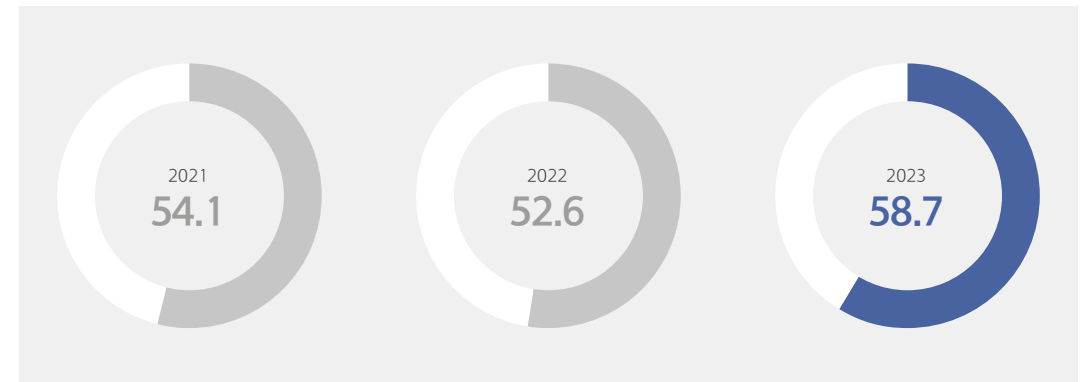
Fostering a Quality Culture

Employee satisfaction and culture diagnostics

Hanwha Systems periodically conducts an organizational culture diagnosis every year to evaluate employee satisfaction, engagement, corporate direction and core values, organizational climate, leadership, systems and processes, etc. By analyzing the diagnosis results and conducting FGIs (Focus Group Interviews) with employees, we identify areas in need of improvement and derive change management measures to create a healthy organizational culture that can increase employee engagement.

Employee satisfaction (engagement) results

(Unit: points)



* Corporate employee surveys (categories: Say, Stay, Motivation) to calculate scores

Organizational Culture Diagnostic in 2023

Category	Soft Factor				Hard Factor			
	Awareness and attitudes	Atmosphere	Leadership	Relationships and communication	Strategy	Structure	Process	HR policy
Defense/ ICT Average	82.0 points	71.9 points	63.4 points	80.8 points	55.4 points	58.2 points	53.6 points	45.2 points

* Participation in the 2023 Organizational Culture Assessment: 66.8% (2,848 of the 4,216 total eligible employees for the survey participated)

Social

Talent Management

Fostering a Quality Culture

Operation of Smart Work

Hanwha Systems is the first in the defense industry and the first Hanwha Group company to establish a smart work system and remote work infrastructure based on digital contactless solutions to create a contactless work environment. Considering the importance of information security in the defense industry, we have separated the defense development network from the general business network to protect defense technology while enabling employees to work regardless of their locations. In addition, we are trying to change the way of working by offering flexible office spaces so that the employees can move away from the traditional way of commuting to their fixed office spaces.

Collective bargaining agreements

Hanwha Systems complies with the basic rights of employees, including freedom of association guaranteed by the Constitution, and labor-related laws and regulations, and creates an exemplary labor-management culture through close communication and cooperation with employee representative organizations (worker committees, labor unions, Labor-Business Council, etc.). We have been negotiating wages every year and discussing collective bargaining agreements every other year, and through frequent communication, including the convening of quarterly Labor-Business Council meetings, we promote worker welfare and the healthy development of the company. For Defense Business, as the collective bargaining agreement was signed in 2022, we are planning to sign a collective bargaining agreement this year, in 2024. About 65% of employees in Defense Business are the members of worker organizations (Labor-Business Council and labor unions). In addition, Labor-Business Council conducts quarterly labor-management consultations in good faith to promote the common interests of labor and management in accordance with the Act on Promotion of Employees' Participation and Cooperation. Meanwhile, to enhance communication between labor and management, the management has had talks with the employees directly and pursued Management-By-Wondering-Around. Also, the company organized various activities such as family invitation events and camping events to listen to the voices of employees and make great efforts to create an active organizational culture.

Health and safety management

Health and Safety Management System

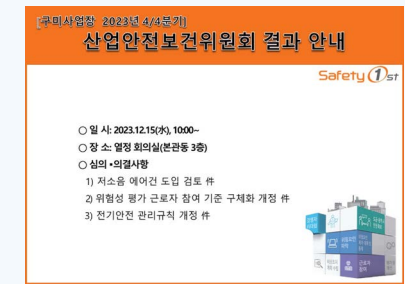
Site-specific work environment management system

Hanwha Systems conducts workplace environment assessments biannually for all chemical substance use sites in accordance with the Safety and Health Act and internal regulations. As a result of the inspection of substances such as lead, inorganic compounds, and other mineral dust in the first and second half of 2023, it was confirmed that all laboratories met the standards in all measured items. In addition, the measurement results are transparently disclosed to employees through the internal bulletin board after approval by the OHS(Occupational Health and Safety) Committee.

CASE

OHS Committee

Hanwha Systems has organized Occupational Safety and Health Committees with a majority of employee members at each site to prevent risks in the work environment and improve employee grievances. The committee is held once a quarter and deliberates and resolves on the establishment of the next year's safety and environment work plan, the enactment and revision of various policies, and the implementation status of laws and regulations. In particular, in the fourth quarter of 2023, we received complaints from workers at the Gumi Site that the air guns used in the field were noisy, and we purchased and introduced air guns equipped with silencers. In addition, we revised relevant regulations such as participation in surveys to expand workers' participation in risk assessments, reflecting in our roadmap to reduce serious accidents.



The Committee findings for Q4 2023

Health and Safety Culture Assessment

Every year, Hanwha Systems quantitatively evaluates the level of safety and health culture using the Safety Culture Survey Tool, which consists of safety leadership, safety management, safety and health management system, education and training, and communication, among employees. In 2023, the level of safety culture at each site was 79.2 points (out of 100), an increase of 3.6 points from the previous year, and the results of the survey are shared with employees and supervisors at each site. In addition, weak areas are identified for each item and major improvement needs are reflected in the next year's business plan for each site, and the implementation of the improvement items is included in the next year's safety culture diagnosis results.

Social

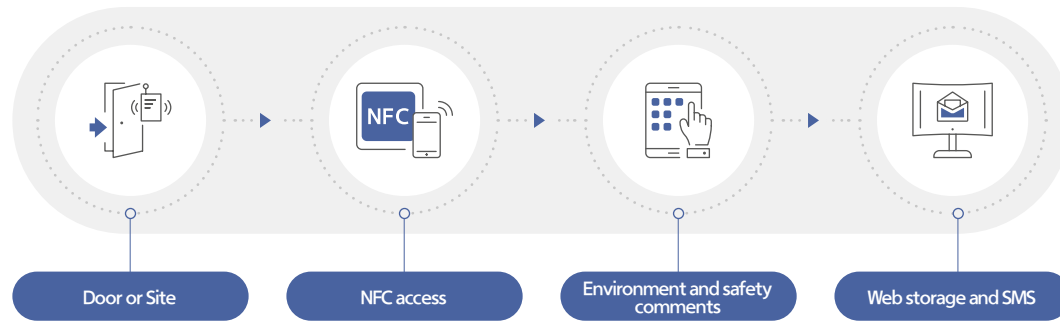
Health and safety management

Health and Safety Key Activities

Near Field Communication (NFC) based smart safety management system

Hanwha Systems has introduced and operated a Near Field Communication (NFC) based system that can transmit fire monitoring status and notifications in real time by utilizing individual smart devices of field workers. The system has the advantage of enabling workers to monitor fires in real time while complying with the systems and regulations related to the Fire Services Act. In addition, we have installed weather monitors to proactively provide information on the weather environment (temperature, strong winds, heavy rain, precipitation, etc.) to workers and employees at the Site. This enables us to identify and eliminate work stoppages and other risks in advance, thereby enhancing the safety and efficiency of the work environment. We also identified the pain points of employees and suppliers through the NFC feedback process and made a total of 176 improvements in 2023.

NFC Input Process



2023 NFC Feedback track record for improving the workplace

Health 2 cases	+	Firefighting 7 cases	+	Safety 126 cases	+	Safety awareness 3 cases
Hygiene 3 cases	+	Electricity 4 cases	+	Environment 6 cases	+	General 21 cases
					+	Other 4 cases
Total						176 cases

Employee health and safety training

Hanwha Systems conducts various safety and health-related competency training programs to improve employees' safety awareness and build a site-oriented safety management culture. In 2023, 15,002 employees (including redundancies) participated in the training by planning training programs for each site. In addition to regular trainings, we also arranged internal and external instructors to provide on- and offline trainings in consideration of the characteristics of safety and health jobs. We also report the status of trainings to the CSO and CEO on a regular basis every year to systematically manage performance.

Health and safety training highlights

Category	Employee training highlights	Training cycles
Basic Training (Common)	<ul style="list-style-type: none"> New Hire Safety and Health Training Special Safety and Health Training Departmental Emergency Response Drills 	Year-round
	<ul style="list-style-type: none"> Regular safety and health training Supervisor training Emergency response drills 	1 to 4 times
Special Education (Yongin R&D Center, Gumi Site)	<ul style="list-style-type: none"> Special lectures on safety and health Training for transport and loading machine operators Training for safety and health supervisors Training for crane operators Fire prevention training Risk assessment, hazardous process worker training Traffic safety in-depth training, etc. 	Once or twice
	<ul style="list-style-type: none"> Safety and Health Manager Training Joint Training with Suppliers 	Year-round

Social

Health and safety management

Health and Safety Key Activities

Employee health management

Hanwha Systems operates various employee health promotion programs to enhance the health of both employees and partner company staff. Specifically, the company runs programs to prevent musculoskeletal and cerebrovascular diseases. Additionally, it promotes the safety and health of employees by running mental health, mobile healthcare, obesity, and smoking cessation programs. Furthermore, in 2023, defibrillators and blood pressure monitors were installed at each workplace in preparation for emergencies. Biannually, safety training sessions, including practical exercises on CPR (cardiopulmonary resuscitation) and the use of AEDs, are conducted at safety experience centers.

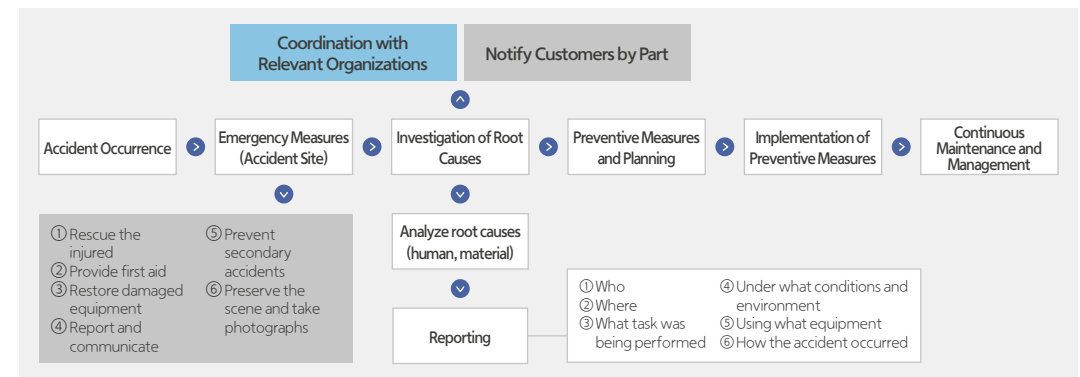
Status of health promotion programs for employees and suppliers

Program name	Highlights
Let's Walk	<p>Musculoskeletal and cerebrovascular disease prevention programs</p> <ul style="list-style-type: none"> • Create separate spaces for people with disabilities • Walking apps to guide exercise, expert instructors to teach musculoskeletal prevention, etc.
Mind Job	<p>Mental health and job stress prevention programs</p> <ul style="list-style-type: none"> • Job stress surveys, campaigns, and expert counseling
Mobile Healthcare	<p>Hope to improve health risk factors</p> <ul style="list-style-type: none"> • Enhanced Health Risk Follow-up, Healthcare
Diabetes and Hypertension Self-Help Groups	<p>Diabetes and Hypertension Health Improvement Program</p> <ul style="list-style-type: none"> • Prevent brain/cardiovascular disease by empowering disease-specific self-management
Smoking cessation campaigns	<p>Smoking cessation campaigns</p> <ul style="list-style-type: none"> • Know the problems of smoking, and empty out the cigarettes and lighters of pockets • Enrollment and counseling in quit smoking clinics
Eye health campaigns	<p>Ophthalmology Specialty Care Program</p> <ul style="list-style-type: none"> • Basic eye test (autorefracton, corneal curvature, intraocular pressure, etc.) • 472 employees from Seoul Site and Jukjeon Data Center participated in the event

Emergency response drills

Hanwha Systems regularly conducts emergency response drills at each site to ensure quick response and minimize damage in the event of an emergency. Based on various scenarios, emergency drills such as environmental accidents and disaster preparedness are planned and conducted in consideration of the characteristics of each site, and a total of 11 emergency response drills were held in 2023. In particular, the Jukjeon Data Center Site, of which the stoppage has a direct impact on business continuity, has established the 'Hanwha Data Center Emergency Response Manual' to ensure stable operation of IT services even in a crisis situation, and is improving deficiencies identified through analysis of the results after the emergency response drills.

Data Center Emergency Response Process



Emergency response drill performance

Category	Site	Training name	Date
Environmental incidents	Gumi	Environmental incident emergency response (hazardous materials storage)	23.11.16
	Yongin/Pangyo/Seohyeon	Crash when working with a crane	23.11.22
Emergency drills	Gumi	Fire evacuation drills	23.06.20, 23.08.23
		Fire emergency preparedness drills	23.08.23
	Yongin/Pangyo/Seohyeon	Fire emergency evacuation drills	23.10.04, 23.10.06
	ICT	Disaster preparedness drills	23.06.14, 23.10.24
		Fire evacuation drills	23.06.23, 23.11.08

Social

Health and safety management

Strengthening Supplier Health and Safety

Environment and safety risk assessment management system for suppliers

Hanwha Systems checks the Environment and safety management capabilities of Suppliers every year to prevent Environment and safety accidents. Environment and safety risk assessments are conducted for contracting, service, and outsourcing contractors, and inspections are conducted for each assessment item based on areas such as management system, operation management, execution level, and disaster occurrence. We also provide EHS consulting for suppliers with low assessment ratings. In 2023, we conducted documentary and on-site audits for 13 companies, and delivered reports on the results of the audits, including improvement measures, to suppliers to enhance their Environment and safety risk management capabilities.

Suppliers' environment and safety risk assessment process



Activities to improve safety and health management of suppliers

Hanwha Systems systematically manages the safety of partner company workers by identifying potential hazards at partner company sites in advance and establishing risk management plans. In addition, we hold a Safety and Health Council every month to handle suppliers' grievances, improve the environment, and respond to environmental accidents. The council conducts various activities such as holding meetings to manage EHS and industrial accident issues, conducting joint inspections and drills at sites, and providing environmental safety supplies.

Suppliers' health and safety outreach

Category	Activities	Details	Cycles
Key activities	Suppliers' ESG Assessment	Environment and safety strategy, environmental safety performance and management assessment	1 time/year
	Suppliers Environment and safety management risk assessment	Evaluating contractor documentation and self-assessment scorecards	1 time/year
	Running a Suppliers Council	Sharing Environment and safety contents and discussing agenda with suppliers at each site	1 time/month
	Joint Environment and safety inspection with Suppliers	Work and work environment checks	1 time/Quarter
	Suppliers joint exercise	Environmental incident, power outage, flooding, EV lifesaving, etc. training	1 time/Quarter
	Suppliers health counseling and medication support	Health counseling, blood glucose/blood pressure/body fat measurement, and medication support for older workers	Always
Support status	Supporting Suppliers Environment and safety goods	Environment and safety protective gear and winterization supplies	Always
	Supporting Suppliers' Environment and Safety Training	Understanding and preventing musculoskeletal disorders	Year-round
	Support for Suppliers risk assessment	Understanding and applying risk assessment techniques	Year-round
	Helping Suppliers Assess Compliance	Response to legislation and minimize legal risk	Year-round
	Support for musculoskeletal hazard investigations	Analyzing and preventing musculoskeletal strain work	Year-round

Social

Quality Management

Quality Management System

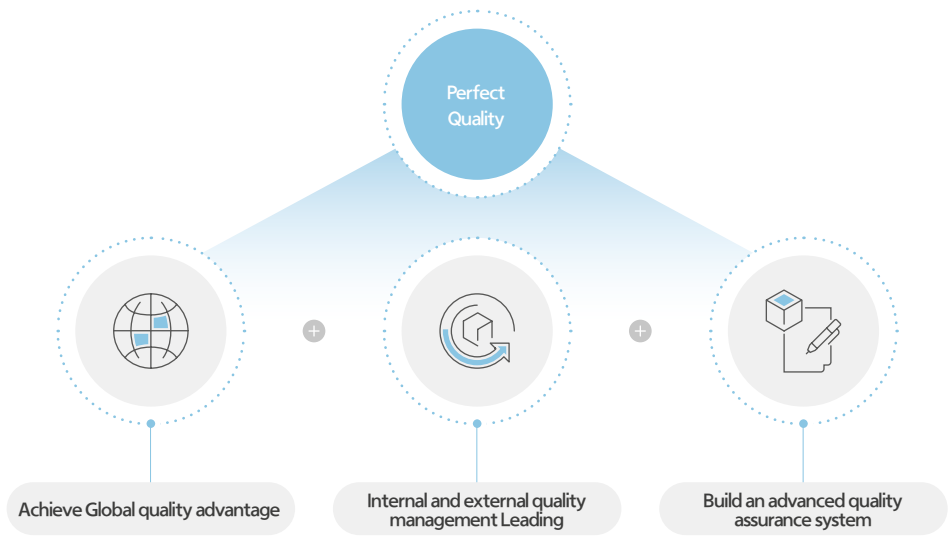
Quality management strategic framework and principles

Under the mission of 'Realizing customer satisfaction by leading change and innovation and creating the highest quality and best service through the implementation of flawless quality throughout the Total life cycle', **Hanwha Systems** has established an optimized quality management system to manage quality in order to fulfill its role as a First Mover in the domestic defense sector and a Fast Follower in the civil/export business. In addition, all employees strive to secure the highest global quality competitiveness based on four principles: customer satisfaction, change and innovation, flawless quality, and basic compliance.

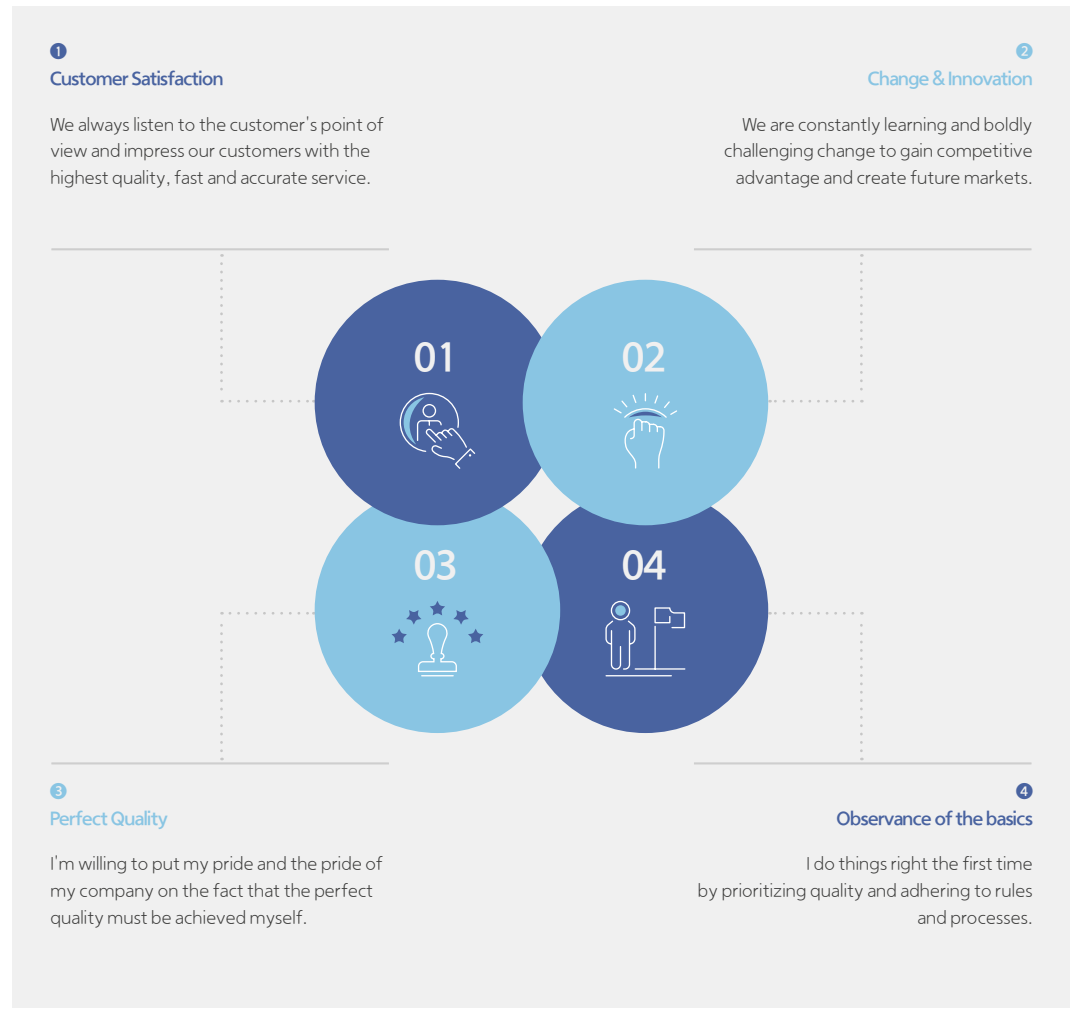
Quality Management Vision/Strategy and Quality Policy

Mission (Purpose)
 Drive change and innovation by implementing zero-defect quality at every turn, and delight customers by creating the highest quality and best service.

Vision
 Growing into a fast follower by playing a role as a first mover in quality management for domestic defense companies and operating a quality system optimized for the business environment to secure competitiveness in private and export businesses



Four Principles of Quality Management



Social

Quality Management

Quality Management System

Total life cycle quality management system

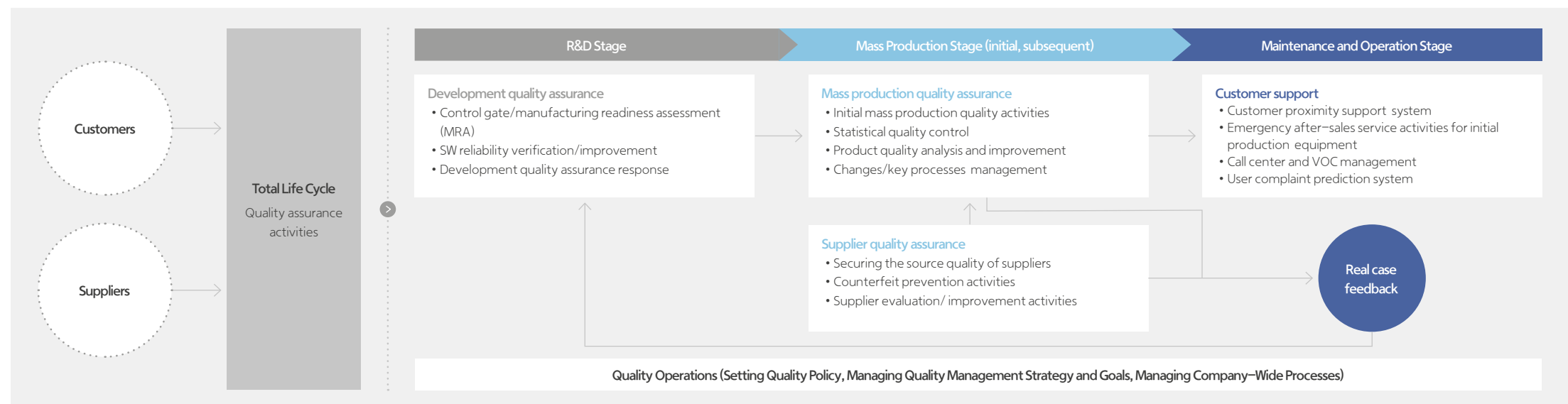
To maintain a quality assurance system that covers the total life cycle of products and services, **Hanwha Systems** has established a collaborative system by relevant departments and operates a three-stage quality assurance system optimized for each stage: R&D, mass production, and operation and maintenance.

First, in the R&D stage, we are implementing our own Control Gate system for each development stage for the first time in the defense industry to ensure high reliability and design quality. We are doing our best to secure design quality management and mass production by establishing a development collaboration team to verify the design and safety quality of the product and approve before entering the mass production stage. In addition, the control gate checks whether the product quality is stable enough to meet the standards during the control gate check, and the person in charge of quality management performs the check role.

In the mass production stage, we have established a real-time statistical process management system between the integrated production management system and the quality information system based on the Corporate ERP system to monitor all processes. In addition, to ensure that parts with stable quality are supplied to **Hanwha Systems**, we have established a supplier quality information system that enables real-time communication with suppliers and manages quality performance. In addition, for first-tier suppliers (Tier 1), internal employees are to review periodic process quality assessments (quality assessment programs for manufacturing facilities, processes, safety, etc.), and for second-tier suppliers (Tier 2), we focus on quality improvement by reviewing conformity through special process assessments (plating, painting, welding, brazing, heat treatment, non-destructive testing, SMT, PCB).

Finally, in the operation maintenance phase, we strive to maintain service quality at the post-supply stage through various customer support activities, including a customer proximity support system centered on major base areas, emergency A/S activities, user complaint prediction system, call center, and VOC management. We also strive to create the best quality and best service through a failure case feedback system to prevent recurrence of quality problems and defects in each stage.

Total Life Cycle Quality Management System



Social

Quality Management

Quality Management System

Project risk management

Hanwha Systems identifies quality risks by analyzing the quality environment in accordance with the internal quality risk management procedure, and determines risk ratings by registering in the quality information system and conducting self-assessments. The evaluation of quality risks is conducted in two stages, and management and monitoring are conducted through the system according to the evaluation grade. Risks related to technology, schedule, and cost of development stage projects are registered as issues and risks in the Program Management Information System (PMIS) by the business management department. In addition, the Quality Department conducts periodic audits, including utilization of audit checklists and compliance with development processes, to ensure that risk management activities are being carried out appropriately.

Quality Risk Assessment Procedure

Steps	Evaluation Criteria
Step 1	Action/Responsiveness * Quality Impact = Severity
Step 2	Severity * Likelihood of occurrence

Quality management related certifications

Hanwha Systems is continuously acquiring relevant certifications to establish and operate a global-level quality management system to ensure the safety and reliability of its products. We have acquired and maintained certifications such as ISO 9001, a global quality management system, and the Defense Quality Management System (KDS 0050-0090), as well as AS9100 and AS9110 for aviation and satellite products. In particular, in 2023, we acquired the DQ (Defense Quality) mark certification for 'Detection Set for Landmine' equipment to secure export competitiveness and received recognition from Defense Procurement Administration Agency for the excellence of product technology and quality.

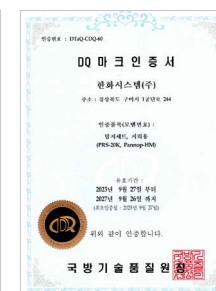
In addition, by acquiring and maintaining certifications related to R&D maturity, such as Productivity Management System (PMS) Level 8 certification, CMMI Level 5 in R&D, and TMMi Level 3 in R&D, we have demonstrated our capability to meet international standards for quality levels related to R&D. In addition, we have maintained and operated KOLAS accreditation as an accredited testing laboratory since 2010, establishing an infrastructure that enables us to conduct our own certified tests in the defense field.

Status of quality-related certifications

Defense Sector Certifications	Expiration date	ICT sector certifications	Expiration date
Quality Management System (ISO 9001:2015)	From Oct. 21, 2023 to Oct. 20, 2026	ISO 20000	From May 03, 2024 to May 02, 2027
Quality Management System for Aviation Maintenance Organizations (AS9110(Rev.C))	From Sept 16, 2022 to Sep 15, 2025	ISO 9001	From April 5, 2023 to April 4, 2026
Aerospace Quality Management System (AS9100 (Rev. D))	From Sep 16, 2022 to Sep 15, 2025		
Capability Maturity Integration Model (CMMI v2.0) Level 5	From Sep 14, 2023 to Sep 14, 2026		
Test Maturity Model (TMMi) Level 3	From Oct 13, 2021 to Oct 31, 2024		
Productivity Management System (PMS) Level 8	From Apr 1, 2022 to Mar 31, 2025		
DQ Mark Certificate	From Sep 27, 2023 to Sep 26, 2027		
Defense Quality Management System (KDS 0050-9000-5)	From Aug 24, 2023 to Aug 23, 2026		
KOLAS Accredited Testing Laboratory Recognition	Feb. 27, 2023 to Feb. 26, 2027		



Defense Quality Management System Certification



DQ Mark Certification



ISO 9001 Certification



CMMI v2.0 Level 5 Certification

Social

Quality Management

Key Activities on Quality Management

Quality management goals and plans

Hanwha Systems establishes a quality management strategy to achieve its corporate vision and strategic goals, and establishes and manages sectoral quality goals. In addition, key quality issues, external trends, and customer complaints are regularly reported through quality management meetings and management reviews organized by the CEO, and improvement plans are derived to proactively solve problems. In addition, we set quality KPIs to achieve our quality management strategy goals and link them to the performance evaluation of departments and employees, thereby enhancing employees' execution of quality management.

Quality Assessment Plan and Performance

Sectors	KPIs	Unit	2021 Performance	2022 Performance	2023 Plan	2023 Performance
Market Quality (Customer)	Number of customer complaints (defects)	Cases	0	0	0	0
	Market defect rate	%	0.282	0.165	0.30	0.123
	System builder process defect rate	%	0.949	0.627	0.85	0.451
Development Quality	Control Gate Conformity	Points	94.9	94.9	93.4	95.7
	Customer Test Failure Rate (Development)	%	0.017	0.000	0.08	0.000
	Development Process Compliance Level	Points	94.7	94.8	92.6	95.3
Manufacturing Quality	Process defect Rate	%	0.870	0.671	0.82	0.752
	Process defect rate (suppliers)	%	0.271	0.218	0.33	0.171
Services	On-time service rate	%	99.2	99.0	95	99.5
	Service satisfaction	%	98.7	99.1	95	98.6

Failure rate and quality control

Hanwha Systems strives to prevent failures in advance and minimize damages to stakeholders such as customers and suppliers through system monitoring at all times. We conduct periodic quality monitoring by strengthening operational service quality of processes, manpower, and quality support tools and establishing our own quality inspection diagnostic system with the aim of achieving an upwardly leveled quality level. We also manage products that have been recalled for malfunctions or improvements, and analyze quality performance to improve product quality and process weaknesses, such as repeatedly-found and hard-to-eradicate defects. Based on these various activities, we are reducing the failure rate and improving the quality satisfaction of our stakeholders through continuous quality management.

Counterfeit electronics management

Hanwha Systems conducts verification of electronic components procured from suppliers in accordance with its own counterfeit electronic component inspection standard procedures. We require our suppliers to comply with the standards for managing suspected counterfeit parts (AS5553/AS6081) and quality assurance methods (IDEA-STD-1010-B, AS6081, etc.), and support them in identifying suspected counterfeit electronic parts (history inquiry support using ERAI) and non-destructive inspection (X-ray) to systematically manage counterfeit electronic parts.

Developing a customized quality management system based on big data

Hanwha Systems is conducting improvement activities to analyze and predict quality issues based on product and service quality data. We have implemented a system to computerize quality data during product mass production to automatically identify quality improvement targets and link them to improvement activities if they do not meet the criteria of the Process Capability Index. In particular, in 2024, we plan to further computerize quality data for suppliers to secure the linkage of quality data by project progress stage and further enhance the analysis system.

In addition, quantitative measurement indicators of development projects are collected and managed through the assessment module of the quality information system, and based on this, we monitor the achievement of the organization's KPIs. If any abnormalities occur in the monthly assessment of development projects, cause analysis and improvement measures are established on a project-by-project basis, and if an organization-wide problem needs to be solved, it is selected as an improvement task and process improvement is carried out. By making a continuous improvement based on Quality 4.0¹⁾ we will operate an efficient and effective quality management system with high reliability.

1) Quality 1.0: Quality Management / 2.0: Total Quality Management / 3.0 Total Quality Business / 4.0 Digital Quality Management

Social

Quality Management

Key Activities on Quality Management

Integrated quality check on ICT operations

Hanwha Systems conducts regular integrated quality checks to ensure stable IT system operation and maintenance for its customers. Each customer's ITO (IT Outsourcing) team conducts checks once every other month, and four to five times a year. The main inspection contents include compliance with change procedures, compliance with deployment procedures during business hours, and compliance with regular service inspection cycles. In addition, irregularity checks (audits) are performed when major failures occur, and the causes of the failures are analyzed to prevent recurrence.

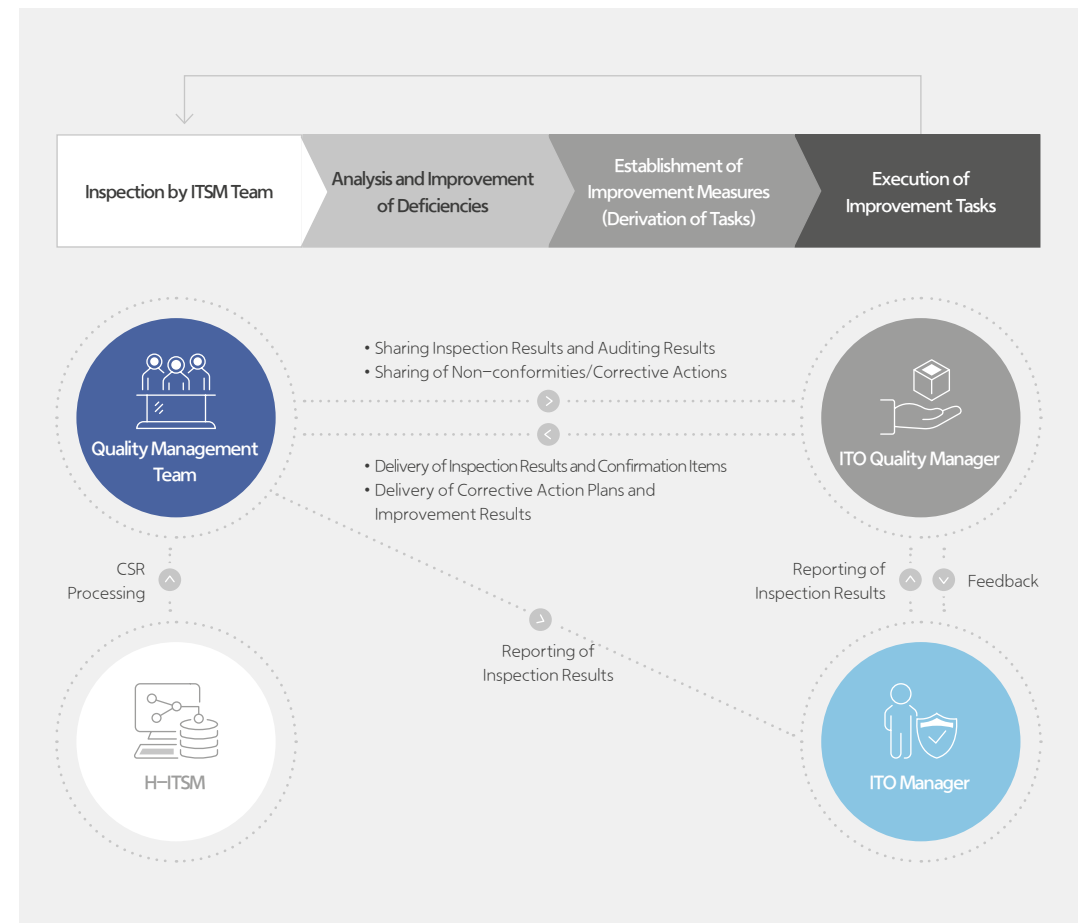
Failure audit procedure



Failure Status

Category	Contents	2021		2022		2023	
		Cases	Time (in minutes)	Cases	Time (in minutes)	Cases	Time (in minutes)
Performance issues	Number of failures for more than 10 minutes and less than 30 minutes	21	1 hour 59 minutes	23	2 hours 47 minutes	5	1 hour 24 minutes
Service outages	Number of failures for over 30 minutes	6	50 hours and 42 minutes	8	49 hours and 14 minutes	21	33 hours, 11 minutes
Customer downtime	Failure lasting more than 10 minutes (ICT Sector Management Standards)	27	52 hours 41 min	31	52 hours and 1 minute	26	34 hours and 35 minutes

Inspection process on ICT operations



Social

Quality Management

Key Activities on Quality Management

Employee training on quality

Hanwha Systems recognizes the importance of completing projects as a subject of quality management for all employees, and regularly conducts trainings to strengthen individual quality capabilities. In 2023, we ran a total of 9 training programs, including quality business manners and customer service mindset, and 1,301 employees participated in the training.

Status of employee training on quality

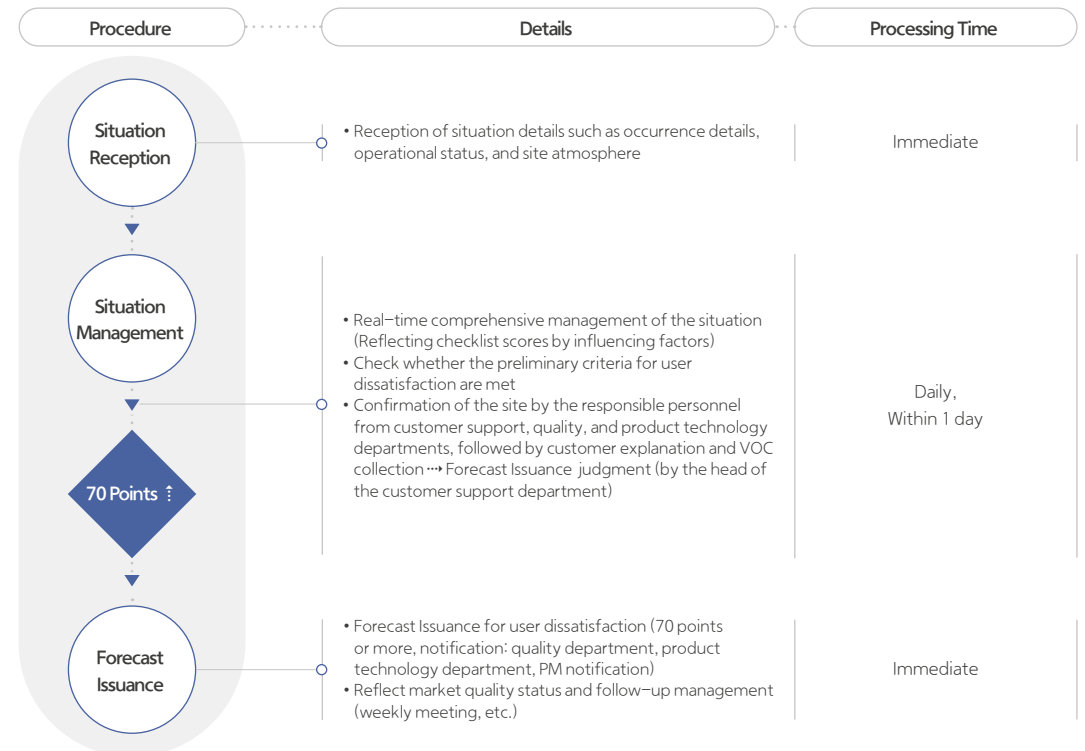
Category	Date	Number of completed participants
Quality business manner	February	109 people
Customer service mindset	April, June, September, December	11 people
Understanding quality management systems	April, June, September, December	11 people
Statistical quality control (Fundamentals)	April, June, September, December	11 people
Measurement system analysis (Fundamentals)	April, June, September, December	11 people
Electrical and electronic assembly training	April, September, December	67 people
Quick six sigma breakout training	June	22 people
Understanding defense quality 4.0	September	5 people
Quality management training (FOD, ESD, MSD, Counterfeit)	May, September, October	1,054 people

Customer Satisfaction Management System

Complaint Forecasting System

Hanwha Systems' customer support department operates a user complaint forecasting system to prevent user complaints due to inconvenience in the operation of equipment. The Customer Support Department identifies and receives customer complaints between service activities, registers them in the system, evaluates the integrity of customer complaints, and immediately delivers them to the relevant departments if they meet the criteria for issuing a forecast. Once a forecast is issued, the relevant departments take prompt action on customer complaints, and the results are registered and managed through the system. From 2021 to 2023, a total of 55 complaints were received and 48 were resolved (87% completion rate).

Process for handling forecast complaint



Social

Quality Management

Customer Satisfaction Management System

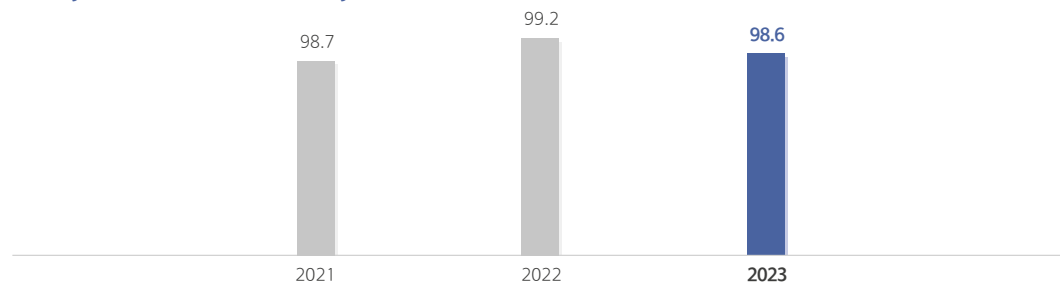
Service satisfaction survey

Hanwha Systems conducts an annual 'Service Satisfaction' survey to evaluate customer satisfaction after the failure of warranty products is resolved, and conducts continuous management and monitoring.

We set and manage a service satisfaction target of 95% every year, and our performance in 2023 exceeded the target at 98.6%. To achieve higher service satisfaction, we are continuously striving to provide higher quality service during the product maintenance phase and to respond quickly to complaints.

Quality Service Satisfaction Survey

(Unit: %)



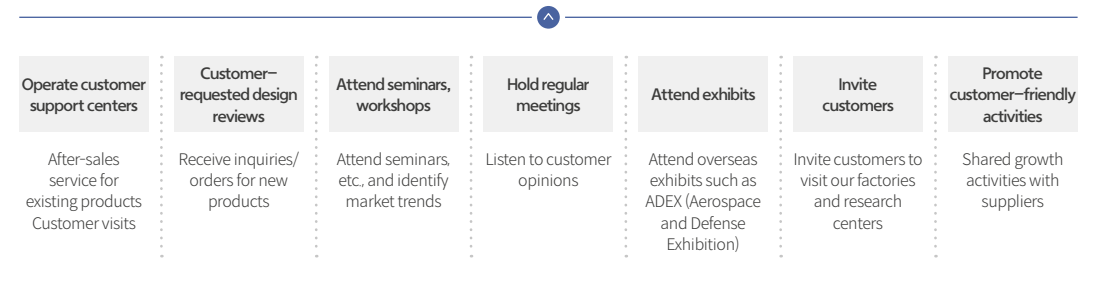
Managing customer satisfaction

Since 2023, Hanwha Systems has been conducting 'Customer Satisfaction' surveys for major defense customers to evaluate contract compliance, our preferences, capabilities, and attitude/communication. This year's results showed that customers were generally satisfied, with an average score of 4.4. Hanwha Systems analyzes the results of the satisfaction survey and positive/negative comments to continuously improve customer satisfaction.

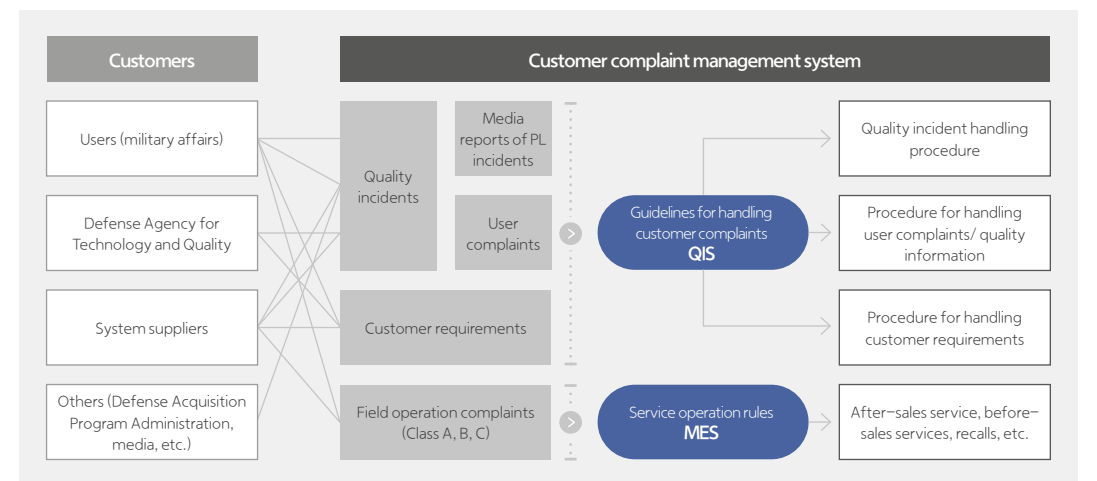
Enhancing customer communication

Hanwha Systems has established a VOC management system to systematically and efficiently respond to customer inquiries and complaints. Through this system, we are promptly resolving consumer complaints and actively reflecting customers' opinions on products to improve customer satisfaction. The VOC System receives feedback via phone and email through the customer center on the homepage, and has diversified communication channels with customers by disclosing contact information for each site

Hanwha Systems' diversification of customer touchpoint channels



Customer complaint management process



Social

Shared Growth Management

Shared Growth Management System

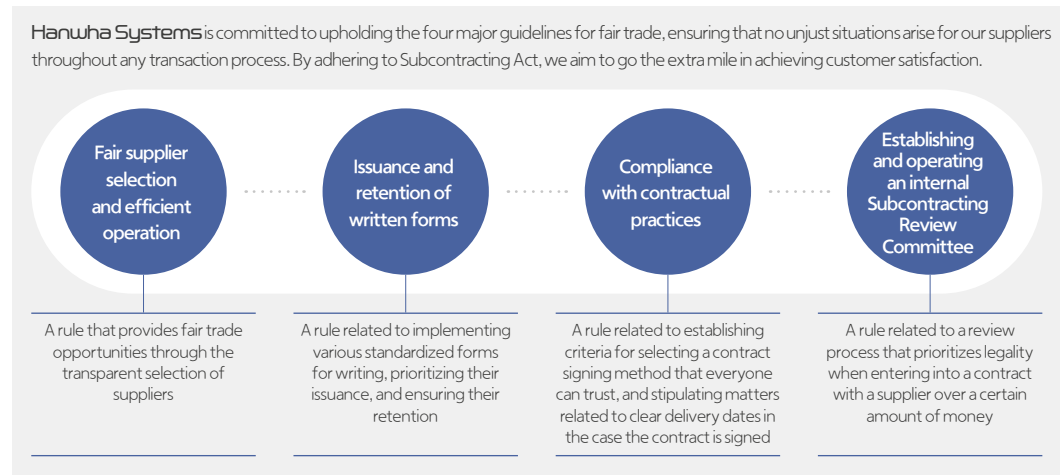
Supplier Fair Trade Agreements

To establish a fair trade order, Hanwha Systems voluntarily concludes fair trade agreements based on the Fair Trade Commission's guidelines with major suppliers every year and implements the agreements. Fair Trade Agreements are selected by comprehensively considering the previous year's business status, transaction volume, partnership participation and shared growth programs, and ESG management level, and subcontract fair trade agreements are signed with selected suppliers that include 'fair contract signing and execution', 'prevention and compliance with law violations', and 'Shared growth Partnership Support'. In addition, Hanwha Systems induces the use of the Korea Fair Trade Federation's standard subcontract agreement with first and second tier suppliers, and conducts monitoring activities on payment methods and periods to stabilize the entire supply chain and prevent risks.

Fair Trade Guidelines

Hanwha Systems complies with the Subcontracting Act to prevent unfair situations for suppliers in all transactions, centering on the four guidelines of fair trade. We operate an internal review committee for subcontracting transactions and take the lead in establishing order in subcontracting transactions through guidelines consisting of fair selection of suppliers, issuance and preservation of written forms, and compliance with contract execution practices. We also prevent unfair trade risks such as verbal orders and unfair order cancellation through electronic contracts using the procurement system.

Four guiding principles of fair trade



Operation of grievance channels for suppliers

Hanwha Systems operates an online channel on its website to receive various opinions from suppliers, including grievances (related to subcontracting issues, Environment and safety, health, and environment, human rights issues, and complaints), suggestions for improvement, and dispute mediation. In addition, we listen to the opinions of suppliers through the annual supplier meetings and the annual satisfaction survey on shared growth activities. The anonymity of the informants is strictly guaranteed, and the opinions received are handled in accordance with the grievance handling process.

Grievance channel



- **Address** (04541) ESG Team, 14F Hanwha Building, 86 Cheonggyecheon-ro, Jung-gu, Seoul
- **E-mail** hsc.winwin@hanwha.com

Number of grievances received from suppliers

Category	Unit	2021	2022	2023
Number of dispute resolution cases received and processed	Cases	0	0	0
Number of grievances and complaints received	Cases	11	39	31
Number of grievances and complaints processed	Cases	11	39	31
Grievance, complaint resolution rates	%	100	100	100

Social

Shared Growth Management

Support for Supplier's Growth

Empowering suppliers

Every year, Hanwha Systems operates an online training platform exclusively for suppliers to provide various trainings in the IT field, including compliance training programs for anti-corruption and technology protection. In 2023, we operated eight job competency courses in costing, logistics, AI field, and ESG, and in particular, in response to the requirements received during the supplier survey, we opened an on-site practical training program, Soldering Skill Up Training, and provided training to 60 employees of our suppliers.

Providing supplier training

Category		Unit	2021	2022	2023
Quality requirements training	Training headcount	Persons	195	180	131
	Target company	Number	54	79	63
Defense Drawing (AutoCAD) Expert Course	Training headcount	Persons	142	187	181
	Target company	Number	41	34	45
Quality Assurance Certification (DSQR) Training	Training headcount	Persons	13	15	28
	Target company	Number	6	10	15
Electric Electronics/ Precision Assembly Skill Up Training	Training headcount	Persons	-	-	60
	Target company	Number	-	-	18
Shared growth Academy (professional development, business skills, statutory mandatory training)	Training headcount	Persons	811	2,284	2,684
	Target company	Number	94	50	52
Occupational Safety Training	Training headcount	Persons	-	-	431
	Target company	Number	-	-	11
Subtotal	Training headcount	Persons	1,161	2,666	3,084
	Target company	Number	195	173	193

Supplier Support for Qualification¹⁾

Category		Unit	2021	2022	2023
New Defense Drafting (AutoCAD) Professional Certification	Acquirers (pass rate)	Persons(%)	97(49%)	69(40%)	48(27%)
	Target company	Number	15	16	23
Defense Drawing (AutoCAD) Continuing Education (Certification Extension)	Acquirers	Persons	59	131	121
		Number	23	48	41

1) Data correction due to changes in calculation criteria

Hosting a Shared Growth Day

Hanwha Systems holds the Shared Growth Day every year to pledge its commitment to continued Shared growth Partnership, share the achievements of the past year and plans for the coming year, and encourage the hard work of employees of excellent suppliers. In 2023, we invited the CEOs and executives of 20 outstanding suppliers to share their achievements in shared growth activities, including achieving the 'Excellent' rating in the Fair Trade Agreement Implementation Assessment for two consecutive years, and Hanwha Systems' mid- and long-term business plans, and awarded them with plaques of appreciation and rewards.



Hanwha Systems Shared Growth Day in 2023

Open Innovation Program

Hanwha Systems is promoting the 'Connect:H' Open Innovation Program to discover and nurture innovative startups in defense technology and build a network for Shared growth Partnerships. This is an open innovation technology development program that enables companies to discover new technologies by building partnerships with suppliers and sharing innovative future technologies and ideas, rather than focusing solely on their own R&D. In 2023, we will select and collaborate with five startups, including GenGenAi, through Startup Autobahn Korea to expand our business areas and provide growth momentum to promising companies.



2023 Hanwha System Open Innovation Startup Technology Exchange

2023 Open Innovation Participants

Business name	Core Technologies	Applicable businesses
GENGENAI	Generative AI as Source Technology	Synthetic data and vision AI powered by Generative AI
EYL	Quantum random number generator with quantum technology	Personal portable non-communication devices and security chips with quantum technology
SPACE&BEAN	Development of new materials for radiation shielding, Electromagnetic shielding technology	Building small-sized satellite electronics and small electromagnetic shielding enclosures
OPTAI	Model Compression for Edge AI	Provide B2B-based AI optimization SW platform
MORAI	Machine learning model optimization techniques	Deliver synthetic data to advance AI cognitive performance

Social

Shared Growth Management

Support for Supplier's Growth

Support for suppliers' human rights management

Hanwha Systems conducts various support activities to improve the human rights and safe working environment of our suppliers' employees. We provided defibrillators (AEDs) to two suppliers who handle hazardous materials in their manufacturing processes or are located in remote areas without hospitals, which may make it difficult for them to respond quickly in the event of an emergency, along with 400 portable survival kits containing nine self-defense items to 20 suppliers. In addition, we delivered a total of 1,000 snack boxes to 34 suppliers as a part of Christmas events at the end of the year.



Survival kit delivery



Cardiac defibrillator delivery

Supporting small business job fairs

Hanwha Systems participated in the Hanwha Group Excellent Supplier Job Fair, held at the Changwon Convention Center in Changwon, Gyeongnam, in May 2023, and supported seven suppliers in setting up booths at the fair. Also, during the event, Hanwha Group affiliates including Hanwha Systems and government agencies signed the 'Shared Growth Business Agreement for Human Resource Development and Job Creation' to establish and operate courses tailored to the field needs of SMEs, and to support suppliers in recruiting and training technical personnel.

Supplier Financing

Creating a shared growth partnership Fund

Hanwha Systems has established a Shared Growth fund totaling KRW 31 billion with financial institutions to help suppliers receive loans at lower interest rates than the benchmark. The Shared Growth Fund serves as a source for suppliers with excellent technology and high growth potential to stabilize their business, improve employment stability, and create jobs for young people.

Category	Unit	2021	2022	2023	
Financing (Shared Growth Fund)	Fund total	KRW million	31,000	31,000	31,000
	Financial institution		17,500	17,500	17,500
	Hanwha Systems		13,500	13,500	13,500
	Executed Amount		22,737	22,070	22,755
	Execution rate	%	73.3	71.2	73.4

CASE

Best Practices for Collaborative R&D Businesses

Hanwha Systems has been operating the joint R&D project since 2021 with a fund of KRW 10 billion from the Ministry of SMEs and Startups. As of March 2024, 5.2 billion (52%) of the total project cost has been spent, and five of the six tasks have been completed. In particular, the R&D case of CORNETSYS was successfully marketed and applied to Hanwha Systems' export ships (Philippine patrol vessels and Yeonam patrol vessels). The item developed by 'Cornetsys' is a standard model of power distribution unit for warships, and it was standardized to be commonly applicable to the requirements of each business, shortening the development period and securing cost competitiveness. In addition, it was developed as modular design, composed of DC power supply, power control, and power distribution modules, so that each module can be selected and manufactured according to the specifications of new and performance improvement projects. By utilizing government subsidies for joint R&D projects to develop equipment that secured compatibility and scalability with existing power distribution units for ships, we captured various export business opportunities. In addition, the key modules and design know-how acquired during the development process can be used to develop power distribution unit models required for domestic naval combat systems with diverse and complex specifications, and development period and cost savings can be expected.



Power distributor module for multifunction consoles



Power distributor module for system cabinets

Social

Shared Growth Management

Supplier Financing

Early payment of 'KRW 26.4 billion' to suppliers

Every year, Hanwha Systems has been making early payments to its suppliers prior to traditional holidays such as Lunar New Year and Chuseok holidays to ease the burden on their financial management. However, considering the increase in financing costs due to high interest rates after the pandemic and the significant increase in funding requirements for suppliers' bonuses, various wages, and payments for raw materials ahead of the holidays, we made three early payments in 2023, not only in the first half and second half of the year, but also by the end of the year.

Early payments to suppliers

Category	Unit	First half (Lunar New Year's Day)	Second half (Chuseok)	Year-end (surviving a business crisis)	Total
Subject companies	Number of companies	98	75	69	242
Early payment Amount	KRW 100 million	77.6	69.7	117	264.3

Payment in alignment with suppliers

In June 2023, Hanwha Systems joined the Ministry of SMEs and Startups' 'Payment in alignment with suppliers' program to build a sustainable ecosystem with suppliers. This program is a pilot initiative in which prime contractor voluntarily enters into contracts for items such as raw materials that can be interlocked, so that delivery payments can be aligned across the contract structure. The program scope is expected to be gradually enlarged in consultation with suppliers.

Incentive programs based on suppliers' ESG management performance

Hanwha Systems is implementing the 'Supplier ESG Management Support Program' using ESG ON to create a sustainable supply chain, and provides ESG education, self-diagnosis, precision diagnosis, and capacity building consulting for free of charge. To encourage suppliers' sustainable ESG management, companies that have actively participated in the ESG Management Support Program are awarded the Outstanding Supplier ESG Award through year-end performance evaluation. In 2023, we held a reward event in collaboration with an external specialized credit rating agency to select outstanding ESG suppliers who received a certain rating or higher and awarded them with plaques and certificates.



Ceremony of Outstanding ESG Supplier recognition

Selecting and incentivizing top suppliers

Hanwha Systems selects and incentivizes outstanding suppliers every year by evaluating price, quality, delivery time, and performance stability for each defense and ICT sector. In 2023, Hanwha selected 15 companies in the defense sector and 8 companies in the ICT sector to receive benefits such as a one-year exemption from contract performance and advance payment guarantee insurance as well as top priority supplier status, which allowed them to offer quotations ahead of the others. In addition, in March 2023, Hanwha presented a food truck with meal sets and drinks to 1,200 employees of 15 outstanding suppliers nationwide.



Food truck event for top suppliers

Criteria for selecting the top suppliers

Categorizing suppliers	Selection criteria	Details	Incentive in details (general)	2023 Performance
Defense	Periodic Assessment	Outstanding for mass production	• Upfront deposit insurance waiver (1 year) • Sharing major business plan: major business information of the year	6 companies
	Grade S	Outstanding for development		9 companies
ICT	General Evaluation 40	Credit Rating (S), Number of Transactions (15), Purchasing Officer Evaluation (15), Unfair Trade Practices (5)	• Prioritizing quoted prices • Press releases • Individual rewards progression	8 companies
	Performance Evaluation 40	Performance evaluation applied throughout the period		

* General: Suppliers with good ESG ratings are given extra points

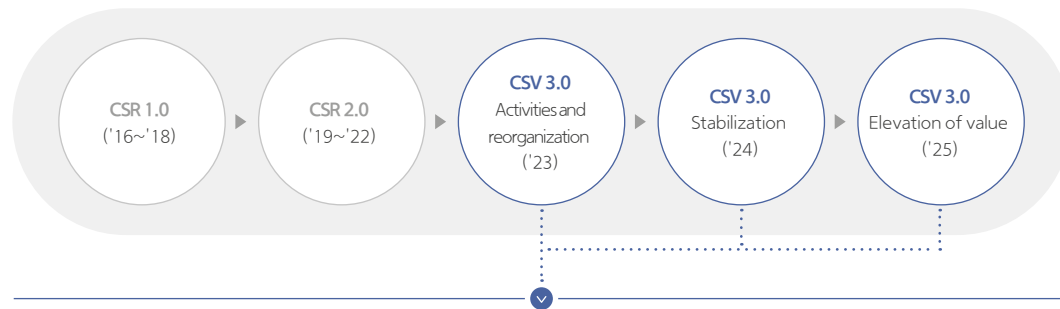
Social

Social Contribution

Social Contribution System

Social Contribution Strategic Framework

Based on the management philosophy of 'Going Further Together', Hanwha Systems has established a social contribution management system and actively communicates with the local community through various programs and channels. We have set 'Creating a happy tomorrow where everyone goes further together' as our social contribution mission and are implementing various social contribution projects. In particular, in 2023, we strengthened the link between our core business and social contribution activities by reorganizing the activities and system of our mid-to-long term strategy for social contribution. We will continue to fulfill our social responsibilities as a corporate citizen who is a part of the community.



<p>Practicing ESG management through community-centered social contribution activities</p> <ul style="list-style-type: none"> Acquiring audits for community contribution recognition system Online video mentoring with soldiers on careers and employment Kiosk education support of digitally underprivileged group Sponsoring victims in flood-affected areas <p><i>Recognized as a company for the Corporate Social Responsibility in the Community Program in 2023</i></p>	<p>Preparing a customized social contribution operation system according to changes in the external environment</p> <ul style="list-style-type: none"> Representative social contribution program with family participation Analyzing external excellent programs and discovering creative programs Sharing necessities with the community through Hope Boxes Support for emergency projects to revitalize the local economy <p><i>Planning and implementing family engagement programs</i></p>	<p>Expanding social contribution programs considering the nature of the business</p> <ul style="list-style-type: none"> Expanded program partners in the community Expanded talent donation activities for children/youth in connection with future projects Support for IT education for vulnerable youth groups being covered by DREAM Project Supporting the Nara Love Food Bank's activities to deliver foods for the persons of national merits <p><i>Identifying local sharing partners</i></p>
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Strategy and Goals for 2023

Social Contribution Mission

"Going Further Together"
A happy tomorrow, where we all go further together.

Strategy 1. "C, Corporate", creating community contributions that are aligned with the company's business

Fields	Beneficiary	Sub tasks	Detailed implementation goals	2023 Performance
Military	Future customers	<ul style="list-style-type: none"> Korea National Defense University and foreign military officers' Joint Korean Community Contribution Activities Mingle with prospective customers, organize Korean cultural exchange and opportunities to contribute to the Korean community 	<ul style="list-style-type: none"> Collaborate with customers to spread community engagement Cumulative number of non-employees participating in activities 	<ul style="list-style-type: none"> Cumulative number of non-employee participation 111 people (66 members of the Armed Forces and 45 members of the National Guard)
	Soldiers	<ul style="list-style-type: none"> Supporting soldiers in the Armed Forces / Veterans' activities Career mentoring for military veterans, Country Love Food Bank, operation support of Korean Armed Forces Capital Hospital Book tour donation, national veterans outing support, mentoring, year-end activities 	<ul style="list-style-type: none"> * Target performance: 100 people per year, 300 people over 3 years 	
ICT	Future Talent	<ul style="list-style-type: none"> Educational support and talent donation activities linked to ICT characteristics Coding education linked to the IT industry, scholarship program, support for KIOSK for the digitally underprivileged 	<ul style="list-style-type: none"> Increasing IT literacy among the digitally underprivileged IT training performance and completion rates * Target performance: 100 students/year, 300+ in three years * Target completion rate: 90%/year, sustained for 3 consecutive years 	<ul style="list-style-type: none"> 130 KIOSK training beneficiaries Coding training for 83 people in IT industry 100% completion rate

Social

Social Contribution

Social Contribution System

Social Contribution Strategic Framework

Strategy and Goals for 2023

Strategy 2. "S, Social", Activating community interaction considering the characteristics of Hanwha System sites					Strategy 3. "V, Value", Internalized social contribution operation system				
Fields	Beneficiary	Sub tasks	Detailed implementation goals	2023 Performance	Fields	Beneficiary	Sub tasks	Detailed implementation goals	2023 Performance
Seoul Site	Local populations (children, elderly)	<ul style="list-style-type: none"> Supporting emergency efforts in community (water damage, disasters, etc.) Contribution to local economic development through collaboration with local residents <ul style="list-style-type: none"> making Bread of Love to engage residents Joint social contribution activities with major Hanwha affiliates <ul style="list-style-type: none"> Fireworks Festival, Hanwha Foundation of Culture, Hanwha Classic, and Symphony Festival 	<ul style="list-style-type: none"> Expanding the number of beneficiaries in the community per year <ul style="list-style-type: none"> Manage the number of beneficiaries per year <p>* Target performance: 3% more than the previous year, 9% in 3 years</p>	<ul style="list-style-type: none"> 274 beneficiaries in Gyeonggi (Yongin) region 2 beneficiaries in Jeju 	ESG	External evaluation	<ul style="list-style-type: none"> Establishing performance targets for each mid-to long-term strategy for social contribution, quantifying them, and disclosing them in the SR Established a process to identify and manage negative impacts on the community <ul style="list-style-type: none"> Internalized the community contribution recognition system in collaboration with the social contribution center Enhanced external disclosure through collaboration with the sustainability report publisher and ESG team 	<ul style="list-style-type: none"> Number of Corporate Employee Fund disclosures <ul style="list-style-type: none"> 5 or more disclosures/year, maintained for 3 consecutive years Number of employee community service trainings <ul style="list-style-type: none"> At least 1 operation/year for 3 consecutive years 	Employee fund disclosure
Gyeonggi Sites		<ul style="list-style-type: none"> Revitalizing community exchanges in Yongin City, establishing friendly relations through proactive support <ul style="list-style-type: none"> Operation of community space improvement project for the elderly in Changli Village, support for small businesses 			Strengthening internal communication	Self-Planning	<ul style="list-style-type: none"> Establishing a space for employee social contribution communication and enhancing transparency <ul style="list-style-type: none"> Utilizing bulletin boards in Circle and Cleverse Portals to activate interaction with employees Company-wide social contribution activities by producing an in-house social contribution newsletter 		
Gyeongbuk Site		<ul style="list-style-type: none"> Contribution to local economic development through collaboration with neighborhoods and businesses <ul style="list-style-type: none"> Organizing community integration projects that target different generations and classes of people 			Improving employee awareness	Self-Planning	<ul style="list-style-type: none"> Establish programs to educate employees and spread awareness of social contribution participation <ul style="list-style-type: none"> Operate programs to promote social contribution participation to build a healthy social contribution culture Increase participation rate and provide incentives for priority participation in group events (fireworks festival, symphony festival, etc.) 		
Jeju Site		<ul style="list-style-type: none"> Operating shared growth activities with the local community in Jeju City <ul style="list-style-type: none"> Supporting health promotion activities for nearby villages (such as Haewon Village) in connection with the construction of the Hanwha Space Center Developing various support activities that respond to the needs and concerns of local (Jeju) society 							

Social

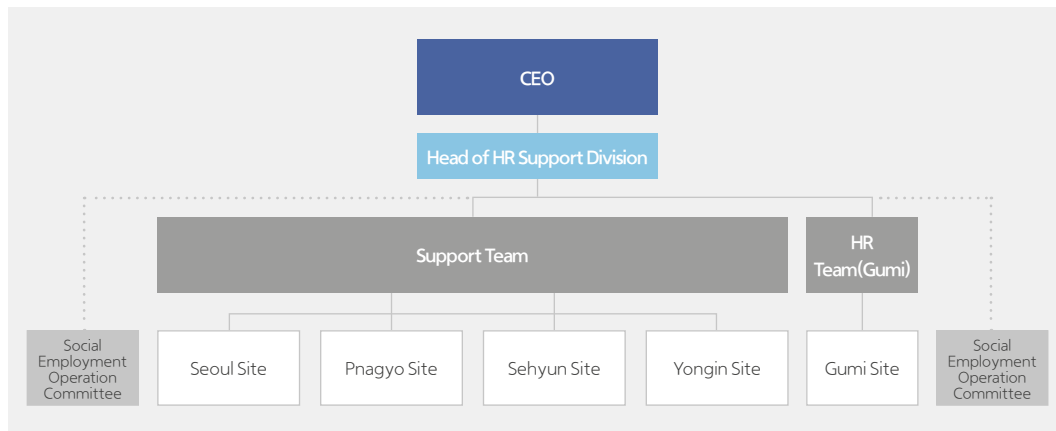
Social Contribution

Social Contribution System

Social contribution steering committee

Hanwha Systems has established a fair and objective decision-making system for social contribution activities by establishing and operating the Social Contribution Steering Committee. Employee representatives from each site were selected and appointed as its members to ensure transparency in the fundraising and execution process and effective social contribution activities. In addition, we fulfill our corporate social responsibility by reporting to the ESG Council and the Board of Directors in the event of urgent issues in the community and establishing an immediate decision-making system.

Organization chart of Social Contribution Steering Committee



Organization and roles of Social Contribution Steering Committee

- ① Reviewing quarterly and annual results and approving activity plans
- ② Steering Committee meeting/resolutions for urgent agenda items (as a standing committee)
- ③ Identifying other programs and making key decisions on CSR activities when approving expenses

Community discussion channels

Hanwha Systems operates online channels such as the community communication channel on its website based on the principle of coexistence with the local community. In addition, it operates the Community Growth Support Center, a regular discussion channel to interact with the local community. In the case of the Seoul Site, we have agreements with the Ministry of Veterans Affairs and the Korean Red Cross, and our sites in other regions have also secured communication channels through collaboration with local governments.

Love Fund and Matching Grant Program

Hanwha Systems' social contribution fund consists of the Employee Love Fund and Matching Grant. The Love Fund is operated based on the voluntary participation of employees, while the Matching Grant is a system in which the company donates the same amount as the voluntary donations made by employees to raise funds. In 2023, we raised a total of KRW 2.84 billion from the Love Fund and utilized it for social contributions and various donation activities at each local site.



Status of social contribution fund operation

Category	Unit	2021	2022	2023
Contribution	KRW 100 million	0.75	8.12	21.6
Business expenses		2.57	1.34	6.1
Support		1.11	2.14	0.7
Total donation		4.43	11.6	28.4

Social

Social Contribution

Social Contribution System

Identifying and managing negative impacts on the community

As a corporate citizen, Hanwha Systems has appointed a person in charge to identify and manage various negative impacts that may occur in the community to improve community issues. We periodically analyze negative impacts in the community, share and discuss community issues with the internal ESG Council and external local governments based on the identified contents, and promote improvement activities based on the finalized contents.

Process for identifying and remediating adverse impacts in the community



Social

Social Contribution

Social Contribution System

Identifying and managing negative impacts on the community

CASE

Mitigating negative impacts on communities of Yongin

In order to improve the negative impacts on the community at the Yongin Site, Hanwha Systems conducted a meeting(2023.06.13) to identify the difficulties and major problems felt by the residents. As a result of the meeting, it was found that there existed problems such as lack of access to medical services and increased social isolation and loneliness among the elderly residents. In response, Hanwha Systems worked with the Yongin Welfare Center to implement various projects to improve the negative impacts on the community. We plan to contribute to improving the welfare of local residents by having regular communication with them.

Steps	Hanwha System Activities
1 Identification of issue	Identifying key issues and improvement needs through community meetings with Yongin Welfare Center and setting priorities for improvement based on severity and urgency 1. Economic hardship and living difficulties, health problems and lack of access to health services 2. Cognitive ability decline and increase of illnesses like dementia 3. Increased social isolation and loneliness among the seniors 4. Lack of basic firefighting facilities in Yongin City and aging facilities including community welfare centers and others
2 Categorization and prioritization	
3 Response and management	<ul style="list-style-type: none"> • Supporting improvement activities to address community issues <ul style="list-style-type: none"> - Health screening support project: Strengthening promotional activities in the community and implementing programs to motivate participation - Dementia prevention training: developing customized training programs and working with experts - Laughter Therapy Classes: Keeping the program running and surveying participants for satisfaction and feedback - Basic firefighting equipment support and old facility improvement project: Supporting firefighting equipment for about 120 households, such as fire extinguishers and stand-alone alarm detectors, and strengthening collaboration with nearby fire departments and welfare centers

Steps	Hanwha System Activities
4 Evaluation and improvement	<ul style="list-style-type: none"> • Identifying future improvement points <ul style="list-style-type: none"> - Improving programs based on participation rates and satisfaction surveys for health screening support and dementia prevention education - Gathering feedback from participants and refining program content to make laughter therapy classes more effective - Increased collaboration with partner organizations to support basic fire protection and improve aging facilities • Evaluation of effectiveness <ul style="list-style-type: none"> - Measuring the Integrity of participants' reduction in loneliness: participants' subjective evaluations during the program, as well as their participation in small group discussions and activities, indicate that they feel more connected and less lonely - Measured changes in frequency of participation in social activities: identified positive impacts on social connections and loneliness reduction, such as increased participation in and frequency of visits to welfare community center activities - Measuring healthcare satisfaction: 85% of participants were "satisfied" or "very satisfied" with the quality and accessibility of healthcare after being surveyed about their experience. • Program improvements <ul style="list-style-type: none"> - The Social Isolation and Loneliness Improvement Program conducts a variety of activities and events to engage participants. - Cognitive decline and dementia prevention programs are tailored to the characteristics and needs of participants.
5 Communication and reporting	<ul style="list-style-type: none"> • Identify problems and check the degree of improvement through continuous meetings with Yongin Welfare Center in the future • Sharing activity reports with internal and external stakeholders

Social

Social Contribution

Giving Back to the Community

Supporting military growth

Since 2016, Hanwha Systems has been supporting the establishment of libraries and providing 400 to 500 books per year through the Love Book Cafe to improve the welfare of army soldiers. In particular, in 2023, Hanwha donated about KRW 6 million worth of books to the soldiers of the 17th Division through the Love Bookmaking Campaign, as well as KRW 5 million worth of consolation goods to support soldiers stationed in remote areas. Thru these efforts, Hanwha Systems has been doing its best to help soldiers who face difficulty receiving cultural benefits due to their geographical location to nurture their dreams and visions for the future through books. In addition, we have signed a business agreement with the Korea National Defense University for the Global Volunteer Project to conduct cultural exchanges and friendly social activities for foreign military students entrusted to the National Defense University, which greatly helped to form friendly ties.



Hanwha System-국Korea National Defense University's Social Contribution Business Agreement Ceremony

Supporting Veteran Families

To help veterans and their families maintain their lives, Hanwha Systems provides various family support activities such as residential environment improvement projects, national veterans' outings, and side dish support. Hanwha Systems' Gumi Site has signed an agreement with the Daegu Regional Veterans Affairs Office to provide home repair services to families of national veterans in the Gumi area twice a year. In January 2023, Hanwha Systems also held a food sharing activity for the Lunar New Year holiday for more than 100 vulnerable national veterans at the Korean Veterans Hall in Jung-gu, Seoul.



'Lunar New Year' s Food Sharing' volunteering activity

Helping communities suffered from flood damage

Hanwha Systems donated approximately KRW 55 million through the National Relief Association to support the rapid recovery of areas affected by the nationwide torrential rains in July 2023. In the future, we will continue to help communities recover from natural disasters such as floods and earthquakes by supporting victims and supporting the underprivileged in society.

Tending a National Memorial Cemetery gravesite

Since 2011, Hanwha Systems has established a sisterhood relationship with the Seoul National Military Cemetery and has been visiting the cemetery at least twice a year and conducting cemetery maintenance activities. In addition, the Chungcheongbuk-do Volunteer Group, comprised of employees from the Daejeon and Chungcheong sites, has been visiting the Daejeon National Military Cemetery and conducting cemetery cleanup activities since 2013.



Volunteer to maintain the gravesite at the Korean War Memorial

Improving the well-being of communities near our sites

Hanwha Systems plans and implements activities every year to promote the welfare of residents in the communities near its Sites. In September 2023, we delivered massage chairs and a set of Chuseok (Chuseok) welcome fruit to the Yongin Senior Citizens' Welfare Center near the Yongin Site to help them have a happy Chuseok Holidays. In addition, we conducted various projects such as health checkups for 133 local seniors to improve their health and dementia prevention education such as singing classes and art classes.

Love-sharing Kimchi, Bread Sharing Activity

Employees at Hanwha Systems' Gumi Site have been sharing Kimchi for vulnerable people such as national veterans and the elderly for 18 years, helping them to spend a warm winter with the delicious Kimchi. In 2023, the 19th Sharing of Love Kimchi activity handed over about KRW 12 million worth of Kimchi to the members of broken homes thru Sangju Orphanage and the Green Umbrella Children's Foundation. In addition, foreign military officers from the Korea National Defense University, their families, and employees delivered handmade Kimchi and baked bread (cake) to 850 vulnerable families in the local area.



Kimchi Sharing Volunteer Service

Social

Social Contribution

Cultivating Future Talent

Shoulder-to-Shoulder Mentor-Mentee

Formerly, Hanwha System has been providing talent development programs through arts education to low-income and underprivileged children, including single-parent families and crisis families, for eight years. We support children to grow into healthy members of society by discovering their talents and motivating them to learn. In 2023, we conducted various art programs for about 133 children through the Green Umbrella Children's Foundation and delivered KRW 20 million in sponsorships after signing a business agreement for the healthy growth of children.



Hanwha Systems Gumi site - Green Umbrella Children's Foundation business agreement ceremony

Career mentoring with soldiers

Since 2017, Hanwha Systems has been conducting the 'Career and Employment Mentoring with Soldiers' program in partnership with the Ministry of National Defense. Employees directly participate in the program to help solve the employment concerns of military personnel serving in the armed forces, and provide various programs such as expert lectures, mock interviews, and how to write a proper cover letter. As a result of these efforts, in February 2023, we were selected by the Ministry of National Defense as the only company in the defense industry to support the employment of military personnel.

AI talent development

As AI technology has already become a part of our daily lives, Hanwha Systems operates educational content development and recruitment linkage programs to foster hands-on talents with an understanding of AI technology.

Dream

Hanwha Systems supports children from low-income families by providing them with training on Excel, Power Point, and ITQ certifications, so that they can grow up to become well prepared members of the society and contribute to the society.

CASE

Signed MOU with Army Signal School for social contribution cooperation

In January 2023, Hanwha Systems signed a business agreement with the Army Signal School for 'one company, one barracks' business exchange and social contribution. The agreement covers educational support in IT and AI and employment counseling for soldiers scheduled to be discharged from the army. In addition, Hanwha Systems donated about KRW 5 million in the name of the Development Fund to support the growth of military soldiers. We will continue to discover social contribution activities in the field of education to help the growth of the community and soldiers by utilizing our expertise in the ICT and defense industries.



'1 company, 1 barracks' business exchange and social contribution agreement ceremony(2023.01.10)

Social

Human Rights Management

Human Rights Management System

Human Rights Management Charter

Hanwha Systems protects and respects the human rights of all stakeholders affected by our business activities, including internal employees, external suppliers, and the community. As a first step toward establishing a global-level human rights management system, we have established the Human Rights Management Charter to support and comply with the human rights principles set forth in the Universal Declaration of Human Rights and the UN Guiding Principles on Business and Human Rights of the UN Human Rights Committee. The scope of stakeholders in the Human Rights Management Charter consists of employees, suppliers, communities, and customers, and we have comprehensively considered the needs and vulnerabilities of each stakeholder.

[Hanwha Systems Human Rights Management Charter](#)

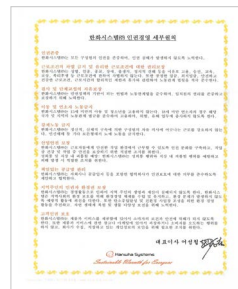


Hanwha Systems Human Rights Management Charter

Human Rights Management Guiding Principles

Hanwha Systems recognizes the human rights impacts on stakeholders throughout the value chain and has established detailed principles for human rights management to protect and respect human rights. Nine principles have been established for local communities, suppliers, customers, and employees, and detailed standards of behavior have been defined.

[Hanwha Systems Human Rights Management Detailed Principles](#)



Hanwha Systems Human Rights Management Detailed Principles

Human Rights Management Mid-to-Long Term Goals

Category	2024	2025-2026	2026-2027
Goal	Establishing Human Rights Management System	Internalizing Human Rights Management	Enhancing Human Rights Management
Implementation Plan	<ul style="list-style-type: none"> Revise Human Rights Policy Introduce Human Rights Risk Management System Conduct Human Rights Impact Assessment 	<ul style="list-style-type: none"> Conduct Human Rights Risk Mitigation Activities Refine Human Rights Risk Management System Strengthen Human Rights Compliance 	<ul style="list-style-type: none"> Expand the Scope of Human Rights Risk Management Strengthen Human Rights Risk Management System Disclose Human Rights Management Report

Human Rights Risk Management

Human rights impact assessment

Hanwha Systems plans to implement a 'Human Rights Impact Assessment' in the first half of 2024 in line with the international trend that demands commitment and responsibility for protecting and respecting human rights in corporate management. We will first identify the current status of Hanwha Systems' human rights management through interviews with relevant departments and surveys of corporate employees. Afterward, we will conduct a human rights risk assessment to derive human rights risks and establish mitigation measures, and set mid-to-long-term goals to cope with human rights threats affecting relevant stakeholders.

Raising employees' human rights awareness

Every year, Hanwha Systems conducts human rights education and mutual respect campaigns on related topics such as prevention of workplace harassment, verbal abuse-assault, and improvement of disability awareness to raise human rights awareness among all employees. In response to the results of the 'Workplace Harassment and Sexual Harassment Survey', which showed that it is necessary to create a culture of respect within the company, we implemented the 'Three Commandments of Mature Hanwha Systems People Campaign' centered on the three keywords: 'respect', 'consideration', and 'happiness'. To internalize employees' human rights awareness, we actively promoted activities to raise human rights awareness, such as installing banners at sites, holding campaign events, and posting related webtoons on internal bulletin boards. We also send regular letters to leadership position employees to prevent workplace harassment, and share quarterly messages on respect for human rights to foster a culture of respect for human rights.



3 Commandments for Hanwha System's Mature People Campaign

Mutual Respect Webtoon

Social

Human Rights Management

Human Rights Risk Management

Operating a Grievance channel

Hanwha Systems has established and operates relevant regulations to prevent and respond to incidents of employee human rights violations such as workplace bullying and sexual harassment, and immediately upon the occurrence of related damage cases, we protect victims and conduct disciplinary procedures against perpetrators in accordance with internal regulations and manuals. In particular, we take measures to prevent secondary damage from occurring through strict confidentiality of all processes and results, and to protect whistleblowers, we have stipulated the prevention of disadvantages due to reporting. In addition, we regularly report the results of report handling to the CEO to enhance the fairness of human rights protection activities.

In addition, Hanwha Systems operates an online complaint filing bulletin board, which allows for the complaint reporting thru the company's Intranet. Also, we operate an in-house counselor system that selects and trains counselors from our employees to make grievance counseling more accessible. Currently, we have 12 in-house counselors, and we provide training on grievance handling competency improvement courses once a year to strengthen their counseling capabilities. In addition, to be true to the purpose of in-house counseling system operation, we do not collect the contents or number of times counselors consulted, and only share those issues that cannot be resolved by counselors themselves, with the HR team for resolution. In addition, we practice human rights management by operating various grievance handling channels such as employee representative organizations or direct reports to the HR team.

Employee Grievance Channel



Grievance performance

Category	Unit	2021	2022	2023
Number of employee grievances filed	Cases	170	27	33
Number of employee grievances handled	Cases	170	27	33
Handling rate of Employee grievance	%	100	100	100

Strengthening a Culture of Diversity and Inclusiveness

Foster a culture of diversity

Hanwha Systems strictly prohibits illegal discrimination based on gender, race, nationality, religion, age, disability, origin, etc. in the recruitment process and fosters a corporate culture that respects the diversity of its employees. In addition, policies on wages, working hours, and prevention of workplace bullying and sexual harassment have been established and applied corporate-wide to effectively protect the human rights of employees. To increase the proportion of female workers in our workforce, we set annual targets and monitor our performance, and we plan to increase the proportion of women workers to 17.1% of all workers by 2026

Managing women's workforce goals for diversity

Item	Headcount - 2023 Target	Headcount - 2023 performance	2023 Achievement rate	2024 Goals
Women as a percentage of total workforce	695 / 4,500 (15.4%)	743 / 4,711 (15.57%)	106.9%	823 / 5,093 (16.16%)

* Based on the 2024 Employment Improvement Measures Performance Report submitted to the Ministry of Labor and Employment (in May 24)

Hiring veterans and underrepresented populations

Considering the nature of the defense industry, Hanwha Systems actively hires veterans every year, and was recognized as an excellent company for hiring veterans by the National Veterans Affairs Administration in 2023. In addition, we contribute to providing a stable working environment for the socially disadvantaged by expanding the number of direct and indirect jobs for people with disabilities every year when operating in-house facilities, printing and business card production, and the Health Keeper System.

Foster intergenerational communication

To strengthen communication among employees, Hanwha Systems regularly publishes the 'Kiosk Letter' every month, which contains major news related to employees and introductions of new employees, and communicates with them through an internal anonymous bulletin board. In addition, the 'Blue Board' council was created to collect employees' opinions, and we are identifying and improving employees' difficulties. In particular, in October 2023, to build a horizontal organizational culture, we eliminated the titles of all employees' positions and titles and implemented the 'sir' address system, where everyone is addressed equally, and held various events (such as slogan contests) to establish and spread the culture.



아무리 봐도 대상 (17.1%)
우린 '님'이지만 당신은 소중한 '님'입니다
'남남'이 모인 회사이지만, 당신은 소중한 '님'입니다.

Winning slogan contest to revitalize the 'sir' address

GOVERNANCE

Hanwha Systems has established a sound governance structure based on the Corporate Governance Charter to protect the rights and interests of shareholders and stakeholders and independent and transparent management, and conducts various ethics and compliance awareness activities. In addition, as a leader in defense and ICT, we recognize information protection and security management as a top priority principle, and we have established a management system and are implementing various activities to ensure this. We will also do our best to continue sustainable and stable business activities based on an integrated risk management system.

KEY PERFORMANCE

60% outside directors and
100% attendance at board meetings
by outside directors



Compliance Program (CP) Earn an **'AA'** rating

ISO 37301 (Compliance Management),
ISO 37001 (Anti-Corruption)
certification



ISO 27001 (Information security) and
ISMS (Information security
management system) certifications



**Operate an integrated risk
management framework**



Governance

Corporate Governance

Board governance

Corporate governance charter

In March 2022, **Hanwha Systems** established and published the Corporate Governance Charter, which expresses its commitment to transparent and sound ESG (Environmental Social Governance) management and contains ethical management policies for fair corporate activities. The Corporate Governance Charter specifies regulations and responsibilities related to corporate governance, including shareholders' rights, the role and operation of the Board of Directors and audit committee, protection of stakeholders' rights, and procedures for management monitoring by the market. Based on the Corporate Governance Charter, we will do our best to become a company that creates differentiated value for all stakeholders based on transparent and sound governance.



Board composition and status

The Board of Directors of **Hanwha Systems** is composed of all directors appointed by the general meeting of shareholders in accordance with applicable laws and the Articles of Incorporation, and operates transparently. As of the end of March 2024, the Board of Directors is composed of five directors, including one inside director, one non-executive director, and three outside directors, and the ratio of outside directors is 60%. In addition, the composition of the Board of Directors as of the end of March 2024 is shown in the table below. In order to secure the expertise of the Board of Directors, we appointed experts in a wide range of areas such as corporate management, finance, legal, and ICT in the appointment of outside directors.

Board composition

(as of the end of March 2024)

Category	Name	Positions	Gender	Date of Birth	Specialties	Major Career Experience	Appointment Date	Term
Inside Directors	Sung-Chul Eoh	<ul style="list-style-type: none"> CEO Chairman of the Board Outside Director Recommendation Committee Member 	Men	1964.05	Enterprise Management General and External Affairs	Economics, Korea University Former Head of Defense Division at Hanwha Systems Current CEO, Hanwha Systems	2020.03.23 (two term reappointments)	2 years
Outside Directors	Hyung-Joo Hwang	<ul style="list-style-type: none"> Chair of the Outside Director Recommendation Committee Compensation Committee Chair Audit committee members Internal Transactions Committee Member ESG Committee members 	Women	1972.02	Information and Communications Technology (ICT)	Ph.D. in Mathematics, Brown Univ. Former Assistant Professor of Mathematics at Duke Univ. Current CEO of AMSquare (co-opted) Current Postech Professor of Mathematics and Professor, Graduate School of Artificial Intelligence	2022.03.24 (one term reappointment)	2 years
	Bon-Seon Gu	<ul style="list-style-type: none"> Chair of the Internal Transactions Committee Audit committee members Outside Director Recommendation Committee Member Compensation Committee Member ESG Committee members 	Men	1968.07	Legal	Former Chief Prosecutor, Gwangju High Prosecutors' Office Current Managing Partner, Attorney-at-Law, Law Office of Bon-seon Gu	2023.03.27	2 years
	Woo-Jong Lee	<ul style="list-style-type: none"> Audit committee chair Chair of the ESG Committee Internal Transactions Committee Member Outside Director Recommendation Committee Member Compensation Committee Member 	Men	1976.11	Financials	Doctor of Business Administration, Seoul National University Former Associate Professor, School of Business, Hong Kong University of Science and Technology Current Professor (Accounting), Seoul National University	2023.03.27	2 years
Other Non-Executive Directors	Byeong-Cheol Ahn	<ul style="list-style-type: none"> Outside Director Recommendation Committee Member 	Men	1968.01	General Business Management	Master of Science in Technology Management, Sungkyunkwan University Former Head of Overseas Business, Hanwha Defense Current Head of Strategy, Hanwha Aerospace	2023.03.27	2 years

Governance

Corporate Governance

Board governance

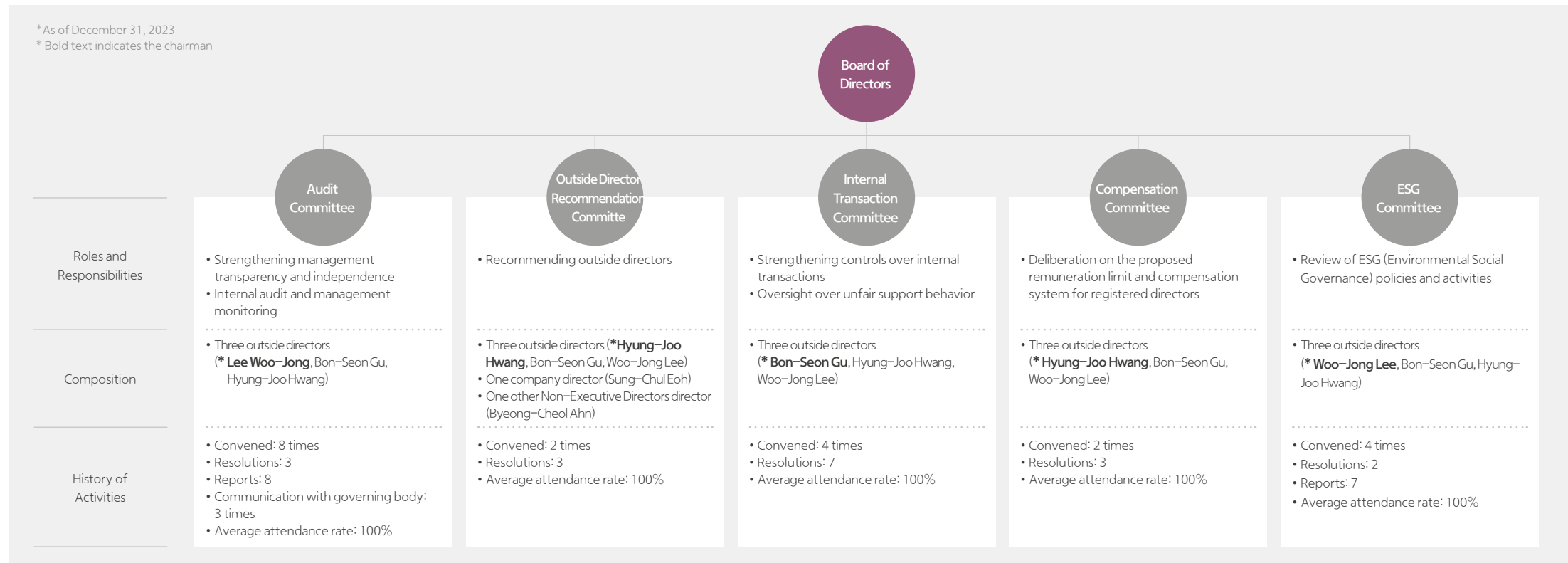
Board subcommittees

Hanwha Systems has established and operates a total of five committees (Audit Committee, Outside Director Recommendation Committee, Internal Transaction Committee, Compensation Committee, and ESG Committee) under the Board of Directors for efficient operation and professional decision-making. The chairperson of each committee is appointed as an outside director, and all committees except the Outside Director Recommendation Committee are composed of outside directors to ensure independence in operation and decision-making.

The purpose, authority, and responsibilities of each committee are disclosed in detail on Hanwha Systems' website. In particular, the ESG Committee, which was established in June 2021, is the central organization of corporate governance for the implementation of ESG management. The ESG Committee reviews, deliberates, and resolves matters related to the mid-to-long term ESG strategies and key activities, ESG-based investment decision deliberations, and responses to ESG issue matters.

 Regulations on the Operation of Committees of the Board of Directors of Hanwha Systems

Board Composition



Governance

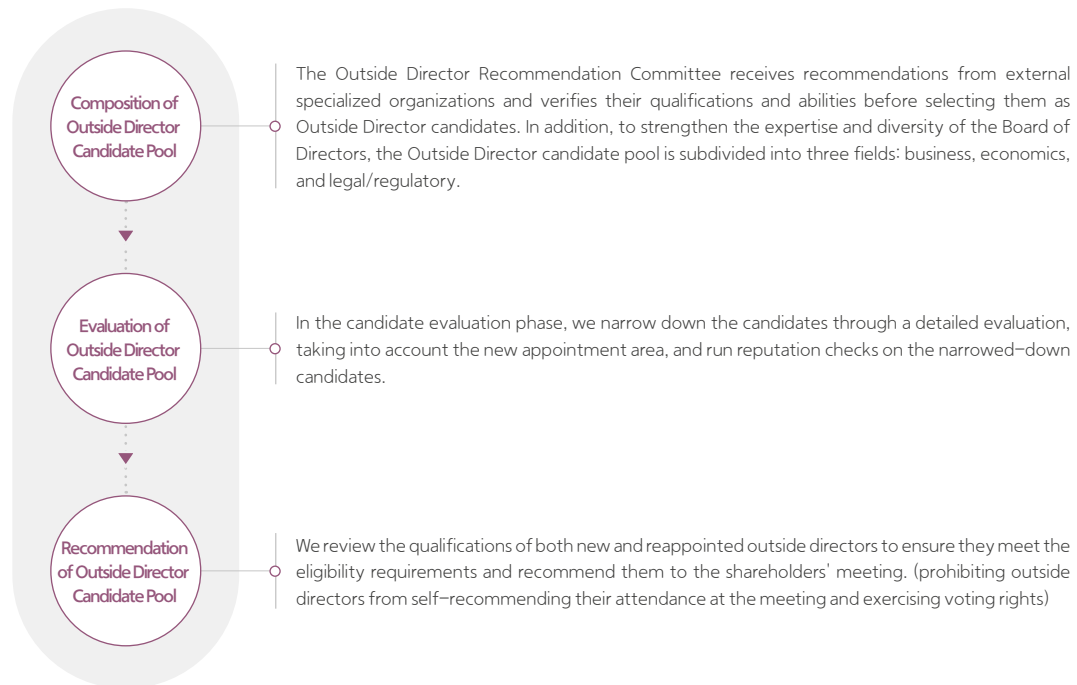
Corporate Governance

Board Composition

Director selection process and criteria

Hanwha Systems' directors are appointed by the general meeting of shareholders in accordance with the Commercial Act and the Articles of Incorporation, and we appoint outside directors with expertise and responsibility in various fields who can contribute substantially to corporate management. The candidates recommended by the Outside Director Recommendation Committee are carefully reviewed and elected after considering their independence, expertise, and diversity, and information related to the appointment of directors, such as their areas of expertise and biographies, is disclosed in both Korean and English so that shareholders can make a decision on the appropriateness of the candidates. In particular, Hanwha Systems is the first large publicly traded company to prohibit so-called "self-recommendation" of outside director candidates, which gives them the right to vote for re-election, to ensure a fair process for the appointment of outside directors.

Board selection process and criteria



Director Selection Process



Board independence and transparency

To reflect the views of various stakeholders and fulfill its independent decision-making and supervisory functions, Hanwha Systems has a majority of outside directors on the Board of Directors. In addition, to ensure that Board members do not represent specific interests, Hanwha Systems appoints outside directors with specialized knowledge and experience in management, economics, law, and major business areas. Meanwhile, the company's articles of incorporation prevent directors with special interests in agenda items from exercising their voting rights, creating a foundation for the Board of Directors' independent judgment.

Board expertise and diversity

Hanwha Systems has a majority of outside directors on its Board of Directors to promote free and objective exchange of opinions and decision-making through independent judgment. At the AGM held on March 24, 2022, we appointed the first women outside director, Ms. Hyung-Joo Hwang (ICT expert), to enhance the diversity of the Board of Directors. In addition, at the AGM held on March 27, 2023, as the terms of four outside directors, Hyo-Bok Bang, Seong-Soo Hong, Seong-Chil Hong, and Ju-Jae Lim, expired, and two inside directors, Ahn-Sik Yoon and Yong-Wook Lee, resigned, we appointed two new outside directors, Bon-Seon Gu (legal expert) and Woo-Jong Lee (finance expert), and one non-executive director, Ahn Byung-chul (general corporate management expert), to maintain a majority of outside directors with expertise in various fields.

Governance

Corporate Governance

Board Composition

Board Skills Matrix

In recent years, there has been an increasing demand for and interest in ESG management both internally and externally, as well as a demand for expertise and diversity from stakeholders such as shareholders and external investors for the Board of Directors, the company's highest decision-making body. In response to this, Hanwha introduced the Board Skills Matrix (BSM) review, preparation, and disclosure process in advanced capital markets including the U.S. and Europe. The BSM is a proactive response to the needs of shareholders, investors, and the market to enhance the understanding of information on the expertise, independence, and transparency of the composition of the Board of Directors and to provide guidelines on the competencies of the Board of Directors that the company needs, thereby enhancing the confidence in the company's director recommendation system and appointment process.

Board Skills Matrix

Item	Sung-Chul Eoh	Byeong-Cheol Ahn	Bon-Seon Gu	Woo-Jong Lee	Hyung-Joo Hwang	Notes
Corporate Management & Leadership	●	●			●	Expertise in managing large-scale organizations
Strategy/ Mergers & Acquisitions		●		●		Expertise in company investment activities such as M&A
Legal/Policy, Risk			●	●		Expertise in legal and public policy
Financial accounting	●			●		Financial accounting expertise for company management and oversight
Key business expertise : Defense	●	●				Key business: Defense industry expertise
Key business expertise : IT	●				●	Key Business: IT industry and technology expertise
Independence			●	●	●	Ability to perform duties fairly and rationally, independent of company interests and major shareholders

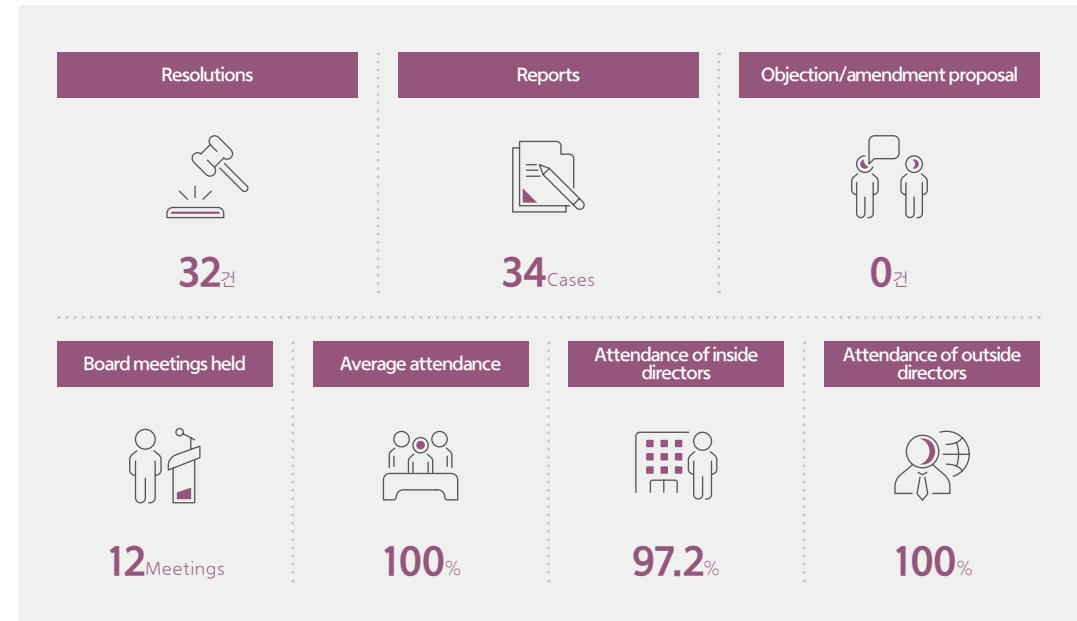
Board Operations

Board activity

Hanwha Systems holds regular board meetings every quarter and additional meetings as required, which are convened by the Chair of the Board of Directors. The Board of Directors encourages the sincere participation of directors by stipulating that a convening notice must be sent to the directors and auditors to attend at least three days before the meeting, and resolves important matters delegated by the shareholders' meeting or related to the management of the company. In fiscal year of 2023, the Board was convened 12 times, and the main issues decided upon included the 23rd fiscal year financial statements and operating report, investment in construction of the new Gumi site, and establishment of the Yongin Site.



Board activities and attendance rates



* As of Dec 31, 2023

Governance

Corporate Governance

Board Operations

Board and executive evaluation and compensation

In accordance with the Articles of Incorporation, outside directors are appointed for a term of two years, and Hanwha Systems conducts an internal evaluation of their expertise and activeness in their areas of responsibility when re-appointing them. The evaluation results are comprehensively reflected in the re-appointment decision to encourage the Board of Directors to actively fulfill their duties and manage responsibilities.

The remuneration of Hanwha Systems' registered directors is divided into salary and performance-based pay. The salary is comprised of a base salary set in accordance with the executive remuneration regulations and an adjustment salary calculated by comprehensively judging organizational contribution, future potential, and substitutability. The remuneration limit and compensation system for registered directors are determined by the Compensation Committee once a year.

Performance-based pay are paid at different rates based on the company's performance evaluated according to financial performance and achievement of management goals and individual performance evaluated according to the achievement of goals set by executives. In addition, we provide welfare benefits such as tuition and medical expenses in accordance with internal regulations, statutory retirement benefits calculated by applying the average wage and years of service to the executive retirement benefit payment rate in accordance with the Executive Retirement Benefits Regulations, and DC account contributions out of the management bonuses paid are classified as retirement benefits.





Former Outside Directors and Audit & Supervisory Directors, including those who are inside the Board of Directors, are not paid separate performance bonuses other than the total director's compensation limit (KRW 5 billion) approved by the general meeting of shareholders in consideration of the transparency and fairness of their roles. For executives, major non-financial performance indicators dealt with by the Board of Directors, such as Environment and Safety Management, security, internal control, and compliance, are mandatorily included in the evaluation, and the results of the evaluation are reflected in determining their compensation, promotion, and appointment/dismissal.

Board Compensation Status

Category	Unit	Total Remuneration	Average remuneration per person	Number of persons
Registered Directors	KRW million	1,165	583	2
Outside Directors		21	-	-
Audit Committee Members		276	92	3
All		1,462	292	5

※ As of the end of December 2023, the total remuneration is calculated as the sum of the annual remuneration of each person who served as a director until December 31, 2023. (does not include restricted stock awards)

Basis and method of compensation

- 
Salary
 - Executive salaries are determined based on the assigned position's role and importance, consisting of a base salary and an adjustment component. The adjustment component takes into account factors such as organizational contribution, future potential, and replaceability.
 - Remuneration is paid in accordance with executive remuneration regulations and the aforementioned criteria.
- 
Performance Bonus
 - The company's performance is evaluated based on financial performance and the achievement of management objectives. Individual performance is assessed according to the targets set by executives. The payment rate, derived from these evaluations, is applied to determine the performance bonus.
- 
Other Employment Income
 - This category includes employee welfare benefits, such as contributions to personal pension plans made by the company, and other welfare expenses.
- 
Retirement Benefits
 - In accordance with executive severance payment regulations, retirement benefits include statutory severance pay calculated by multiplying average salary, length of service, and payment rates based on the type, as well as management performance bonuses deposited into a DC account during employment.

Enhancing Outside Director Expertise

Hanwha Systems supports the organization and training of outside directors so that they can effectively perform their duties on the Board of Directors and its committees. In 2023, we provided training on the topic of decision-making with the core management team for outside directors and executives through the Korea Association of Listed Companies, an external organization. In particular, for the Audit Committee, we provide periodic training on the latest amendments to relevant laws and regulations, including the Internal Control over Financial Reporting System, to prevent related compliance risks in advance and support the enhancement of the expertise of Audit Committee members.

Activities to Ensure the Expertise and Diversity of Directors

Support Organization for Outside Directors	Provision of advance materials related to board agenda items and regular information sharing on key internal issues to assist outside directors in performing their professional duties
Training to Enhance the Expertise of Outside Directors	Providing training in various fields such as ESG disclosure and oversight, global board and audit committee trends, understanding accounting oversight bodies, preventing financial accidents, and risk management

Governance

Corporate Governance

Shareholder-friendly Management

Equity and capital structure

As of December 2023, the par value of one share of **Hanwha Systems** was KRW 5,000, and the total number of shares outstanding was 188,919,389 (including 1,926,128 non-voting shares).

Voting Rights Status

Category	Stock Types	Number of Shares
Total shares outstanding	Common Stock	188,919,389
Number of non-voting shares	Common Stock	1,926,128
Number of shares with voting rights	Common Stock	186,993,261

Protection of shareholder rights

To make it easier for shareholders to exercise their voting rights at the 2020 Annual General Meeting (AGM), **Hanwha Systems** introduced the e-voting system and e-proxy system for all shareholders, and implemented the system for the AGMs from 2021 to 2023. In addition, **Hanwha Systems** has been holding the AGMs to avoid the concentrated days of the AGMs through the 'Autonomous Program for Distributed AGMs'.

Category	Date of introduction
Concentrated voting system	Not introduced
Paper-based voting system	2000.01.07
Electronic voting system	2020.03.23

Enhance shareholder return

As part of our policy of returning to shareholders, **Hanwha Systems** follows a process of paying dividends through resolutions made by the Board of Directors and the general meeting of shareholders. We also determine the appropriate level of dividend rate within the range of distributable profits, taking into account investment for sustainable growth, enhancement of shareholder value, and the business environment. Furthermore, we transparently disclose the status of our shareholder return by posting the dividend payout ratio for the last three years on our website and enhance the predictability of the size of our shareholder return.

Dividend Payment Status

Category	Unit	2021	2022	2023
Total Cash Dividend Amount	KRW million	29,919	46,748	52,358
(Consolidated) Dividend Payout Ratio	%	30.57	-57.89	15.26
Cash dividends per share	Common Stock 원	160	250	280
Market Dividend Rate	Common Stock %	1.02	2.26	1.68

Enhance shareholder communications

Hanwha Systems operates various communication channels with shareholders to ensure shareholder-friendly management. Every year, we hold new business seminars for shareholders and institutional investors to actively communicate with stakeholders on corporate activities. In addition, we post relevant information through fair disclosure before quarterly earnings announcements, and disclose earnings announcement materials on the company's website so that anyone can easily obtain information on corporate activities. In 2023, we held a total of 18 corporate briefings and conferences to communicate with shareholders.

Governance

Ethics and Compliance

Ethics and Compliance Framework

Compliance and Anti-Corruption Management System Certification

Hanwha Systems continuously conducts various corporate ethics and compliance activities every year under the belief that ethics and compliance management is not an option but a necessity for sustainable growth. In June 2022, we obtained ISO 37301 (Compliance Management System) and ISO 37001 (anti-bribery management system) certifications, laying the foundation for promoting ethics and compliance management in line with global standards. We have completed the first-year follow-up audit in 2023 to continuously ensure that the policies and systems of the established management system, risk control activities, and management methods align with global standards and are effectively executed. The audit results showed no non-compliance issues. Moving forward, we will continue to enhance the trust of internal and external stakeholders and minimize the risk of legal violations through ethical and compliance management in accordance with international standards.

Operating a Compliance Program (CP)

Hanwha Systems has established and operates a Compliance Program (CP) that meets the standards of the Korea Fair Trade Commission for compliance with antitrust-related laws and regulations. CP refers to an internal compliance system such as training and supervision that a company establishes and operates to establish an order for the competition and comply with fair trade-related laws and regulations on its own. In order to secure the objectivity and reliability of such CP, Hanwha Systems applied for the CP evaluation in 2023 organized by the Korea Fair Trade Commission, and in October 2023, Hanwha Systems received the AA (Excellent) rating, which externally recognized that Hanwha Systems' CP is well established and working.



Certificate of Compliance with the Fair Trade Compliance Program

In addition, as part of enhancing the Compliance Program (CP), Hanwha Systems organized an internal CP council comprising executive-level employees, the council held a total of 10 meetings. The CP council, chaired monthly by the compliance officer, shares and discusses the latest external trends and internal issues related to fair trade and CP. Furthermore, the materials from the monthly internal CP council meetings are shared with all employees through the company-wide bulletin board.

Ethics and Compliance Activities

Ethics and compliance checks

Hanwha Systems conducts compliance checks for all departments through regular compliance (fair trade, subcontracting, etc.) and corruption risk assessments. Compliance officers in each department check themselves for risks of violating laws through annual checks, and analyze the results of the checks to proactively prevent compliance risks from occurring and improve business processes. In addition, the Compliance Officer reported compliance control activities to the 8th and 12th Board of Directors in 2023.

Ethics and compliance checklist activity in 2023

Key activities	Cycles	Total	Result
Company-wide subcontracting transaction inspections	Quarterly	4	Appropriate
Identify and assess departmental compliance (antitrust, subcontracting, etc.) and corruption risks	Yearly	1	Appropriate
Evaluate the effectiveness of departmental compliance (fair trade, subcontracting, etc.) and corruption risk improvements	Yearly	1	Appropriate
ISO 37301/37001 internal audits	Yearly	1	Appropriate
ISO 37301/37001 certification audits	Yearly	1	Appropriate

Governance

Ethics and Compliance

Ethics and Compliance Activities

Publication of the Fair Trade Compliance Manual

In June 2022, Hanwha Systems first published the Fair Trade Compliance Manual, a fair trade textbook and guideline that encompasses the matters necessary for employees' compliance with fair trade, for the first time. Since then, the manual has been regularly reviewed through monitoring by the departments in charge to update the enactment and revision of laws and regulations, and was revised twice in 2023.



Cover of Hanwha Systems' Fair Trade Compliance Manual

The compliance manual was produced in various formats, including comprehensive, practical, mini, and video formats, and in the case of the mini manual, it was included in the company's business notebook and distributed to all employees. In addition, in order for employees to utilize and understand the manual more efficiently, the comprehensive manual was subdivided into four sections: basic, fair trade, subcontracting & shared growth, and trade secret protection. In the first half of 2023, the fair trade section was further subdivided and published as such in the second half of 2023. Former employees are surveyed twice a year on the utilization of the Fair Trade Compliance Manual, and issues and improvements are derived based on the survey results and reflected in the next revision of the Fair Trade Manual. Particularly, based on the results of the 2023 survey, we identified employees' pressing needs for getting the information on much relevant, practical cases and for obtaining more subdivided manuals. We plan to address these concerns by further refining the manual's contents and including the latest cases.

Expanding and Sophisticating Corporate Compliance Assessments

Hanwha Systems has expanded the targets and items of Corporate Compliance Assessment to successfully establish Corporate Compliance Management and improve its effectiveness. In 2023, the evaluation targets were expanded from executives to corporate department heads (team leaders) to encourage direct participation of executives and department heads, and compliance evaluation items such as risk identification/assessment/management for each department were added to the evaluation. Corporate compliance assessment is reflected as a KPI item in the performance evaluation of executives and department heads.

Operation of Reporting Channels

Hanwha Systems always operates channels for reporting ethics and compliance violations within and outside the company through various channels such as the company website, telephone, fax, and mail. Employees can also report ethics and compliance violations through the 'Online Complaint Filing Bulletin Board' on the corporate Intranet. We have codified in the company's code of ethics the protection of whistleblowers, including safeguarding their identities, treating the reported information confidentially, and preventing any disadvantages to the whistleblower due to their report. In addition, the Executive Leadership Team is required to conduct an investigation, including fact-checking, within 30 days (60 days for material matters) after receiving a report and notify the report of the outcome of the investigation, and regularly reports the outcome of the investigation to the CEO.

Governance

Ethics and Compliance

Establish a Culture of Ethics and Compliance

CEO's direct declaration of compliance management commitment, publicized internally and externally

The CEO of **Hanwha Systems** recognizes that compliance management is not an option but a necessity for sustainable growth, and he has strongly declared the company's commitment to compliance management through frequent communications to internal and external stakeholders. In particular, in January 2023, the Corporate Compliance Letter emphasized the successful application for CP rating and the follow-up audits of ISO 37301 (Compliance Management System) and ISO 37001 (Anti-Corruption Management System), and expressed our commitment to respond to the increasingly stringent demands of the country and society for compliance management, including fair trade. In addition, in December 2023, the CEO personally participated in the reward event for compliance excellence to encourage and reward employees. These declarations and others are posted on the company's internal bulletin board and website that the CEO's commitment to compliance management can be easily verified.

Employee Ethics and Compliance Pledge

Every year, all employees of **Hanwha Systems** sign an Ethics and Compliance Pledge to familiarize themselves with ethics and compliance regulations and pledge to comply with policies and systems. Through this pledge, we enhance our commitment to practicing ethics and compliance management, including compliance with the Code of Ethics and Employee Guidelines, and compliance with relevant laws and regulations, and in 2023, we achieved a 99.9% submission rate from all employees, including the CEO.



Introducing and operating an industry meeting reporting system

Since March 2023, **Hanwha Systems** has implemented a 'Pre-Reporting System for Industry Meetings' to prevent risks related to collusion under the Fair Trade Act and to protect its employees. Employees participating in relevant industry meetings or events are required to report the nature and details of the meeting to the Compliance Team in advance and submit a self-checklist afterward. The company closely examines whether any collusion-related content or signs were present during these meetings.

Conduct ethics and compliance training

Hanwha Systems regularly conducts various compliance trainings to establish a culture of compliance management by raising the compliance awareness of all employees. To maximize the effectiveness of compliance training, we provide differentiated training by hierarchy (position, task, department), and after the training, we conduct surveys to investigate the satisfaction, improvement, and complaints of the participants to improve the next training program.

2023 Compliance Training Program

Training name	Period	Trainees
Training Compliance Council Representatives	Feb	Compliance Council representative
ISO Internal Auditor Training	Mar	ISO Internal auditors
Executive Education	May	All executive
Corporate Compliance Training	Jul	All employees
Risk department training	Jul	Each department by Fair Trade risk (high, medium, low)
Corporate Fraud Prevention Training	Dec	All employees
New hire training	Year-round	All new employees (new/experienced)
Compliance newsletter training (Fair Trade and Required Legal Training)	Twice a month (newsletter distribution)	All employees

Revamped and enhanced compliance newsletter

Hanwha Systems monitors, analyzes, and reviews the latest compliance trends and sanctions, as well as revisions to fair trade and company-related laws and regulations, and publishes a compliance newsletter on a regular basis. The newsletter is disseminated to all employees via email and in-house bulletin boards to familiarize them with the latest changes in the legal environment, thereby raising the awareness of compliance among the company and its all employees.

In particular, in 2023, we completely reorganized and enhanced the existing compliance newsletter by including CP announcements, fair trade-themed trainings, compliance quiz, and compliance content in video format in an effort to strengthen employee compliance awareness at all times through the distribution of the newsletter.

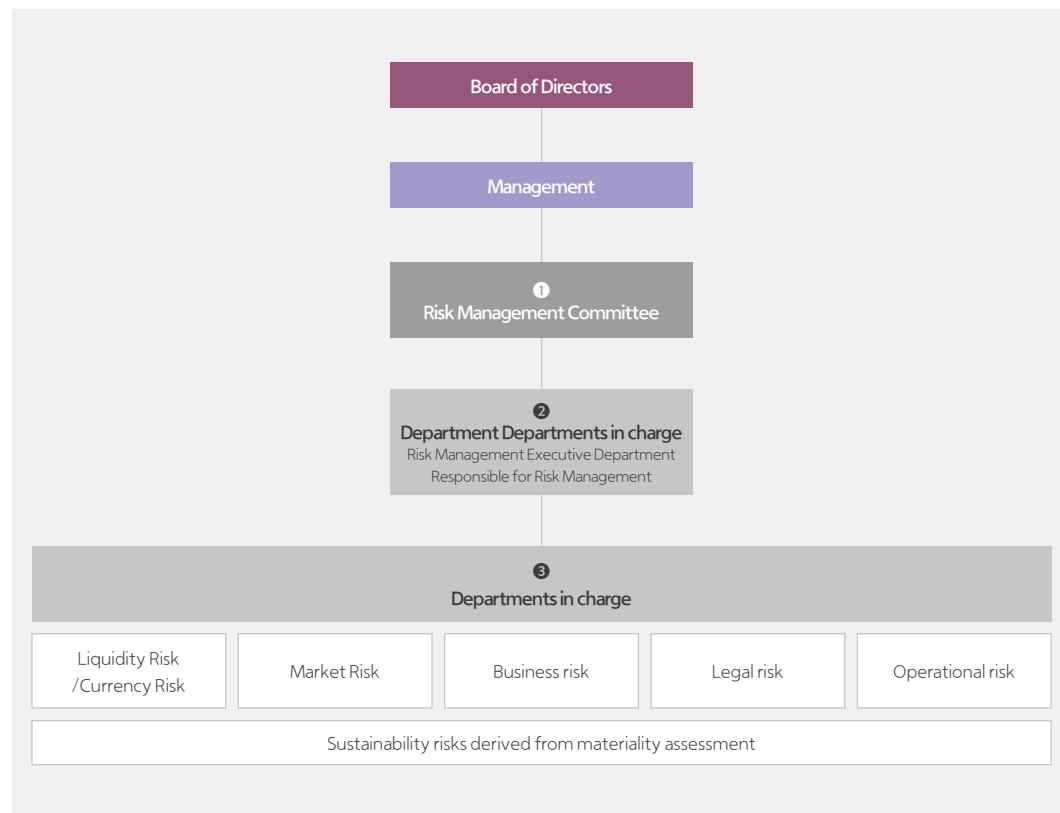
Governance

Manage Risk

Integrated Risk Management System

Risk management governance

In order to proactively manage risks and respond to them effectively, the Chief Financial Officer (CFO) serves as the Chief Risk Officer (CRO) in charge of corporate risk management, and the executives in charge of legal and business management are organized as the Risk Management Committee, which holds regular monthly meetings. The Risk Management Committee is responsible for overseeing risk management and establishing policies that may have a material impact on the company's business activities, and issues that have a material impact on the company's operations reviewed through the committee are reported and approved in accordance with the Board of Directors and committee regulations. In particular, risk management personnel from each department participate in the committee to conduct risk quantification analysis using qualitative methods and prioritize and manage risks based on their expertise in issue-specific risks and an integrated view of each issue. In addition, the departments report the contents and results of the Corporate Risk Council activities to the committee on a monthly basis. In addition, risks identified and managed by each organization are reevaluated monthly, and when necessary, they are responded to through an organic and close cooperation system, such as by submitting the case to the committee and the Board of Directors.



Roles of risk management entities

Category	Frequency	Roles	Details
① Chief Financial Officer(CRO) Chief Legal Officer Business Management Officer	Monthly	<ul style="list-style-type: none"> Responsible for overseeing the management of risks that may arise in the business and establishing policies. 	<ul style="list-style-type: none"> ① Approval for establishing and adjusting risk management plans and strategies ② Approval for establishing and revising management regulations ③ Risk measurement results and management status ④ Significant large-scale investments
② Business Management Department	Monthly	<ul style="list-style-type: none"> Establishes a risk management plan Checks and reports on risk management and implementation (Monthly), reevaluates risks and re-establishes response strategies 	<ul style="list-style-type: none"> ① Establishing, changing, and implementing risk management policies and plans ② Regular or irregular reporting of comprehensive risk management status ③ Checking and reporting on the progress of company-wide risk management matters ④ Other matters deemed necessary by the Board of Directors, management, or committees related to risk management
③ Planning and operations departments of each organization	Monthly	<ul style="list-style-type: none"> Identifies risksConducts risk quantification analysis Reports on risks and establishes response plan 	<ul style="list-style-type: none"> ① Designating and operating risk management personnel ② Discussing issues and risks with primary departments ③ Providing timely information necessary for risk management to the primary department ④ Regular inspections and management of risks for each organization in charge

Governance

Manage Risk

Integrated Risk Management System

Risk management principles

Hanwha Systems operates a corporate risk management system to effectively respond to changes in the internal and external corporate environment. We enhance sustainable growth by setting and managing appropriate risk levels in line with the company's management goals and strategies. The Risk Management Committee under the Board of Directors establishes risk management principles to manage corporate risks in an integrated manner, and reevaluates risk management reports collected from each department on a monthly basis to re-establish risk checks and response strategies. In addition, the departments report high-priority risks to the committee from time to time or on a regular basis, and the head of risk management reports to the Board of Directors when deemed important to the company.

Hanwha Systems Risk Management Principles

- ① Policies and organizations for managing potential losses that may occur in connection with the company's business activities shall have procedures and reporting systems.
- ② Risks by type should be integrated and managed on a company-wide basis.
- ③ Risk levels shall be set and managed to ensure that profitable business activities are not curtailed by excessive control of risks and are consistent with management goals and strategies.
- ④ Risk indicators shall be uniform and consistent.

Risk management process

Hanwha Systems' risk management department establishes a risk management plan every year in accordance with the company's management goals and strategies, establishes procedures and methods, and periodically checks and reports on whether they are properly implemented throughout Corporate. The risk management process consists of five steps: establishing a risk management plan, identifying, analyzing, responding, monitoring, and reporting, and after prioritizing the identified risks, we respond effectively according to the characteristics of each risk.

Agenda Items of the Risk Management Committee and the Number of Items Submitted to the Board of Directors in 2023

Category	Number of cases
Number of agendas	484
Submitted to the Board of Directors	1*

*As for the case of items submitted to the Board of Directors, the Risk Management Committee deemed the 'Establishment of the 2023 Safety, Health, and Environment Plan' as important and submitted it to the Board, which granted approval.

Risk Management Process

Establishing a Risk Management Plan



- Establish a risk management plan annually, prepare procedures and methods, check and report on proper implementation across the company
- Responsible for Primary department Departments

Risk Identification



- Identify important internal and external issues and risks that may arise in connection with the company's business activities according to classification standards and notify the primary departments.
- Responsible for All departments All

Risk Analysis



- Conduct quantitative analysis of identified risks based on the evaluation criteria and determine the priority of handling risks according to rating.
- * For low-priority risks, report and prepare countermeasures at each headquarters and office level.
- Determine the level of response by risk rating and report to the committee
- Responsible for All departments, Primary department All Departments

Risk Response



- Proactively take steps to mitigate the likelihood and impact of high-priority risks by developing single or multiple response strategies. Take proactive measures for high-priority risks by establishing single or multiple response strategies to mitigate the likelihood of occurrence and impact.
- Responsible for All departments All

Monitoring and Reporting



- Review, provide oversight, and reassess changes in the risks under management at all times, following a consistent standard.
- Re-evaluate risks and re-establish response strategies on a monthly basis by integrating the ledger.
- Report to the Board of Directors any risk issue that is deemed necessary to be brought to the attention of the Board as an important matter for the company.
- Responsible for All departments, Primary department, Committee

Governance

Manage Risk

Integrated Risk Management System

Risk assessment criteria

Based on the risk assessment criteria, each department of **Hanwha Systems** conducts risk quantification analysis by considering the probability of risk occurrence (Level 1 to 5) and Impact Level (Strategic Importance, Management Impact, ESG Impact, Urgency). Based on this, we assign a rating to each risk and prioritize responses. The department in charge of risk management considers the level of response to each of these grades and reports to the Risk Management Committee either occasionally or on a regular basis concerning how to respond to high-priority risks, while lower-priority risks are reported and responded to by each headquarters and office unit.

Probability of Risk Occurrence

Category	Weighted Content				
	Level 5	Level 4	Level 3	Level 2	Level 1
Judgment	80%+ Almost Certain to Occur	Less than 80% to more than 60% likely	Less than 60% to more than 40% likely	Less than 40% to more than 20% likely	Less than 20% likely to occur

Risk Impact Level

Category	Weighted Content				
	Level 5	Level 4	Level 3	Level 2	Level 1
ESG impact	Serious impact on ESG management	Impact on ESG management	Partial impact	Potential future impact	Negligible impact
Strategic Importance	Severe impact on vision and strategy implementation	Impact on vision and strategy implementation	Partial impact	Potential future impact	Negligible impact
Management Influence	More than KRW 5 billion in cost or public image impact	Cost more than KRW 1 billion	Costs incurred and High probability of business impact	Future costs incurred	No cost
Urgency	Immediate action required (Corporate-level)	Immediate action required (Headquarters-level)	Action required (Headquarters-level)	Needs to be addressed (Team-level)	Needs further review (Team-level)

Corporate Crisis Management Response System

Hanwha Systems has established a Corporate Crisis Management Response System and established a manual to effectively respond to unforeseen risks such as safety/environment, funding, security, and national crises. We have organized a Corporate Crisis Management Committee chaired by the CEO, and each Site operates a Site Emergency Response Committee. In addition, we have clarified the nature of the crisis and division of duties through the Corporate Crisis Management Response Manual, and established a Corporate Reporting System Map and response Level-by-Level process.

Manage Risk by Type

Financial risk management

Among the various risks arising from the unpredictability of the capital market, **Hanwha Systems** identifies and manages liquidity, foreign currencies, and market risk as the main risk for the company.

Category	Contents	Defining risk	Hanwha Systems Response
Liquidity Risk	Macroeconomics (inflation, interest rates) and cash flows, etc.	Risk of loss due to a mismatch between fund management and procurement periods, insolvency due to unexpected outflows and hemorrhaging of funds, borrowing at high-interest rates to resolve funding difficulties, and unfavorable sales of held assets	<ul style="list-style-type: none"> Maintain adequate liquidity and financial strength through periodic balance of payments forecasting and reconciliation
Foreign currency risk	Exchange rate fluctuations and translation gains and losses	Risk of loss due to unexpected fluctuations in exchange rates, resulting in changes in the value of foreign currency-denominated transactions and foreign currency-denominated financial statement items	<ul style="list-style-type: none"> Consider whether or not to hedge against currency fluctuations (hedge selection) Periodic assessment, management, and reporting of foreign currency exposure risk for foreign currency denominated debt obligations. (e.g., conducting quarterly exchange management meetings)
Market Risk	Market and policy changes, social disruption, etc.	The risk that we may not be able to respond appropriately to market fluctuations, including government policies, market conditions, political conditions, and our reputation, resulting in losses, such as a decline in the value of our business and holdings.	<ul style="list-style-type: none"> Regularly monitor defense and civilian markets, policy, and technology changes

Governance

Manage Risk

Manage Risk by Type

Manage non-financial risks

As the environment for practicing ESG management is strengthening, **Hanwha Systems** manages three categories of business, operational, and compliance risks as non-financial risks in consideration of the impact that global compliance and social changes may have on the business as a whole.

Category	Contents	Risk Definition	Hanwha Systems Response
Business risk	Late payment, Late delivery, Technical changes, Not meeting development SPEC, etc.	Risks that may arise in the conduct of business, such as late delivery, failure to meet requirements, etc. for all businesses for which the company has entered into contracts and agreements.	<ul style="list-style-type: none"> Total life cycle product and service quality management enhancement Strengthen policies for listening to customers and improving customer satisfaction
Operational risk	People, Productivity, Quality, Environment and safety, Team capabilities, etc.	Risks inherent in Former's operations due to inadequate or incorrect internal procedures, security, personnel, and environment and safety issues that may arise from intentional or negligent acts or omissions.	<ul style="list-style-type: none"> Strengthen administrative, technical, and physical information security Strengthen management systems for key business operations issues such as raw materials, logistics, human rights, etc.
Compliance risk	Personnel, Test sites, Materials, Technical issues, Intellectual property, etc.	The risk that the Company may incur losses due to violations of relevant laws or obligations, lawsuits, institutional changes, etc. in connection with the Company's business operations	<ul style="list-style-type: none"> Strengthen field and practice-centric compliance management Be more proactive with a CP program

Manage potential risks

Hanwha Systems identifies and proactively responds to risk factors that are expected to have a significant impact on the company's management in the mid-to-long term due to changes in the global business environment, and strives to convert potential risks into opportunities.

Category	Content	Potential business impact	Hanwha Systems Response Strategy
Climate change	<ul style="list-style-type: none"> Acute and chronic physical risks from rising global average temperatures Transitioning to a low-carbon society can create implementation risks 	<ul style="list-style-type: none"> Extreme weather events disrupt logistics and raw material supply, reduce productivity, and compromise product quality Failure to secure technologies and products to address climate change creates competitive and reputational risk 	<ul style="list-style-type: none"> Implementing mid-to-long term GHG emissions reductions Developing strategies to make product manufacturing processes more environmentally friendly Diversifying supply channels for product production
Information security	<ul style="list-style-type: none"> Increased risk of corporate secrets and personal information being compromised due to changing ways of working, including working from home Possible risks from collecting, leaking, and using personal information from customers and employees 	<ul style="list-style-type: none"> Reputational risk and legal penalties for customer data breaches if a strong information security is not in place Need a reliable security system to protect against external hacks, unexpected events, etc. Need to secure the company's critical information assets and operational stability from cyberattacks, system malfunctions, etc. 	<ul style="list-style-type: none"> Regular information protection training and inspections for employees Expanding the number of dedicated security personnel and strengthening their competency Acquiring ISO 27001, ISO 27017, and ISMS certifications and enhancing cybersecurity management systems
Transforming technology and industry structure	<ul style="list-style-type: none"> The risks of failing to proactively address industry restructuring required for digital transformation 	<ul style="list-style-type: none"> Limitation with the entry into new markets when technology and systems are not available (New business opportunities can be expanded when relevant capabilities are acquired) Need to secure key R&D talent to address future defense and ICT industries 	<ul style="list-style-type: none"> Expanding business competency based on new digital technologies such as AI and Cloud Discovering new businesses and diversifying business fields by utilizing ICT competency and defense communication technology

Governance

Manage Risk

Strengthen Internal Control Systems

Operating internal control over financial reporting

Hanwha Systems implements the Internal Control over Financial Reporting system to prevent errors and irregularities that could cause distortion of financial statements and to ensure the reliability of financial statements. We have appointed the CFO as the internal accounting manager and formed a dedicated organization to operate the Internal Control over Financial Reporting system, evaluate the suitability of the system and the efficiency of its operation, and report the results to the Audit Committee and the Board of Directors. In addition, to ensure that the Internal Control over Financial Reporting system is properly operated, internal control items are reflected in the business goals of each department and evaluated based on performance evaluation criteria. In addition, internal and external changes and Corporate risks reported by the Risk Management Committee are identified and reflected in the design of the Internal Control over Financial Reporting system, and risks are minimized through evaluation. In addition, management continuously improves accounting transparency and financial reliability through continuous evaluation, change management, and improvement of the Internal Control over Financial Reporting system.

Internal control over financial reporting audit and reporting

Every business year, Hanwha Systems' management reviews the effectiveness of the system in accordance with the best practices of Internal Control over Financial Reporting and reports on its operation to the Audit Committee, the Board of Directors, and the general meeting of shareholders. The Audit Committee evaluates the design and operation of the system based on its independence and reports the results to the Board of Directors and the general meeting of shareholders, and discloses the operation of the Internal Control over Financial Reporting system to stakeholders by disclosing it in the business report. In addition, the adequacy of the operation of the Internal Control over Financial Reporting system is certified by an independent external auditor.

Supporting audit committees and performing audit engagements

Hanwha Systems has established and operates an independent audit department, the Executive Management Team, directly under the CEO. The team conducts routine audits, special audits, and ethical management audits to investigate various irregularities and violations of laws and regulations in the performance of its duties and eliminate problems. In addition, the team derives risk factors in management through periodic diagnosis of administrative and management tasks and suggests improvement measures to prevent management risks in advance. In order to fulfill its role efficiently, the team (Business Planning Team 1) has designated a department to support the Audit Committee, which reviews and presents agenda items, writes minutes, and performs other tasks in support of the Audit Committee.

Management Diagnosis Team Detailed Roles

Category	Details	
Diagnosis	① Process Diagnosis	<ul style="list-style-type: none"> Inspecting major business processes and analyzing efficiency Identifying issues in processes and suggesting improvements
	② Operational Diagnosis	<ul style="list-style-type: none"> Checking management policies and organizational management goals Analyzing business environment and performance
Audit	① Internal Control Inspection	<ul style="list-style-type: none"> Analyzing control functions according to organizational R&R Analyzing control mechanisms for each business process Identifying risk factors and suggesting improvements
	② Special Audits	
	③ Patrol Inspections	<ul style="list-style-type: none"> Inspecting high-risk areas for regulation violations and fraud Analyzing abnormal pattern signs and suggesting prevention measures
	④ Ethical Management Audit	<ul style="list-style-type: none"> Investigating reports of fraud and corruption Promoting ethical awareness through employee education
	⑤ Continuous Monitoring	<ul style="list-style-type: none"> Inspecting daily operations and control expenses

Tax Management

Compliance with regulations and fulfilling tax reporting and payment obligations

Hanwha Systems recognizes that faithful tax payment in compliance with tax laws is an important factor in society, and we fulfill our tax obligations in an exemplary manner. Based on domestic and international tax policies, in-house tax law department evaluates various aspects of tax risks and conducts all transactions arising from corporate activities in accordance with the tax laws of the respective countries. In addition, to prevent tax risks due to enactment and revision of tax policies, we continuously monitor domestic and international tax laws as well as tax trends in each country to update our tax policies and strictly comply with regulations to prevent tax avoidance and tax evasion.

Category	Unit	2021	2022	2023
Corporate Tax Payment Details	KRW million	30,176	23,741	57,395

Governance

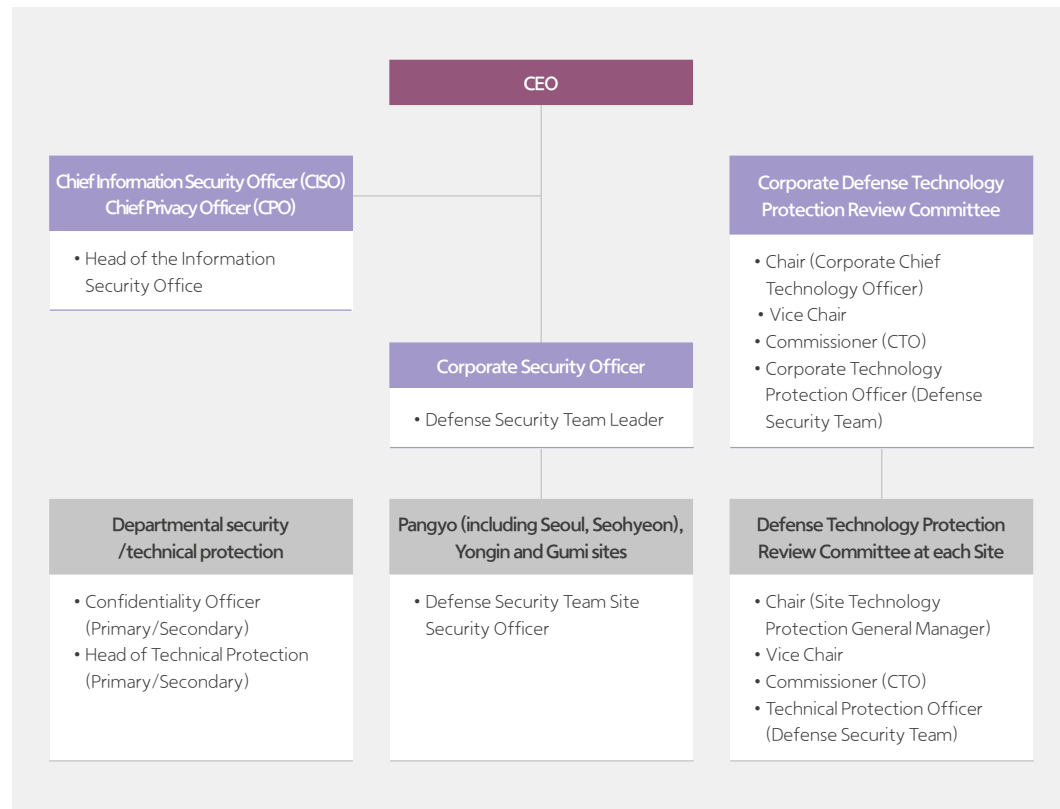
Information Security

Information Security Management Framework

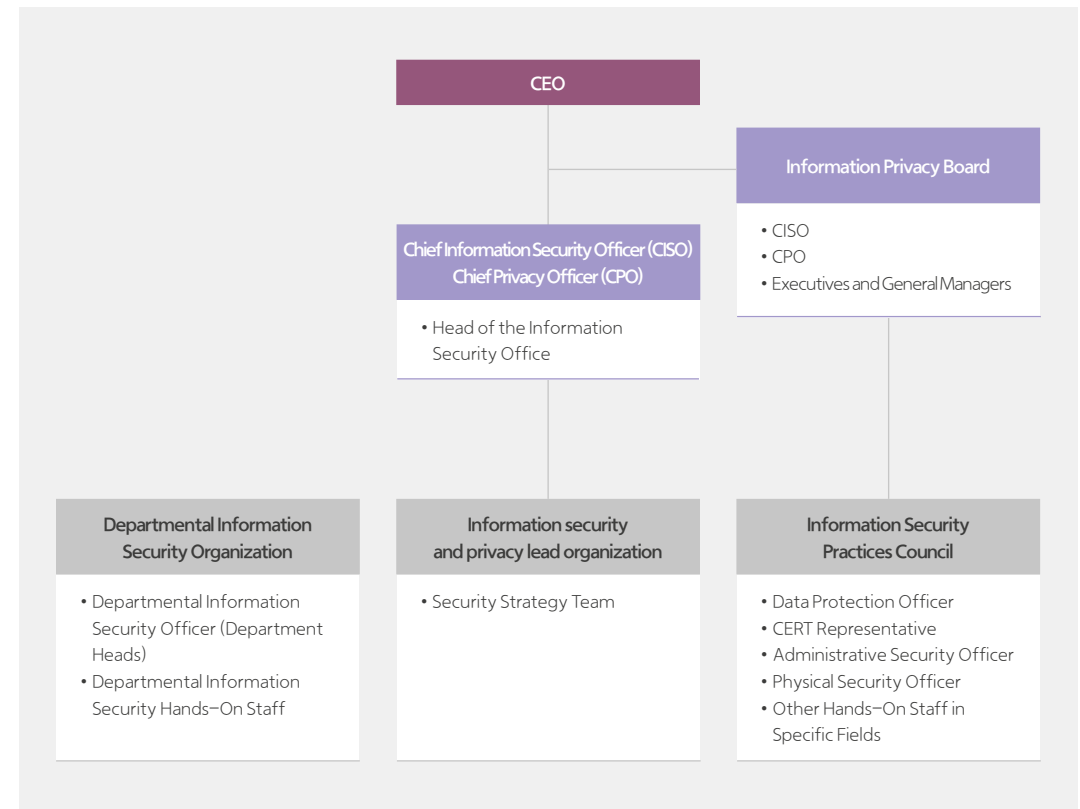
Information security management governance

Hanwha Systems has established and operates a defense security and ICT information protection governance system to manage an information protection system tailored to the characteristics of the defense and ICT industries. For systematic information protection management from a Corporate perspective, the Chief Information Security Officer (CISO) is designated as the head of information protection governance, and the Information Protection Office oversees the company's information protection and privacy policies. In addition, the Security Strategy Team conducts ICT-related security audits, employee information protection awareness activities, and internal information protection councils. The Security Operations Team is in charge of security system construction, operation and maintenance, security control, and infringement response, and the Defense Security Team is responsible for protecting defense industry technology and blocking external leakage of defense industry-related materials based on the Defense Industry Technology Protection Act and the Defense Industry Security Work Order.

Defense security governance



ICT Information security governance



Governance

Information Security

Information Security Management Framework

Information security management governance

Information security organizational structure and roles by department

Category	Responsibilities and Authority
Information Security Office	<ul style="list-style-type: none"> • Head of Information Security and Privacy • Establish policies/guidelines, standards • Establish information security solution policies and approve exception handling • Conducting internal security audits • Conducting information security awareness activities • Manage/Respond to Information Security Certifications • Prevent and respond to information security incidents • Operating an Information Security Council
Security Strategy Team	<p>Goal: Establish security strategy, ensure compliance of company IT services and prevent information leakage</p> <ul style="list-style-type: none"> • Head of Information Security and Privacy • Establish policies/guidelines, standards • Establish information security solution policies and approve exception handling • Conducting internal security audits • Conducting information security awareness activities • Manage/Respond to Information Security Certifications • Prevent and respond to information security incidents • Operating an Information Security Council
Defense and Security	<p>Goal: Achieve Zero Security and Technology Leakage Incidents</p> <ul style="list-style-type: none"> • Zero security incidents by enhancing the protection of military secrets/defense industrial technology • Revise bylaws based on policies such as laws and regulations for security and technology protection • Establish security/technology leakage prevention measures, provide security guidance and enforce security measures • Create and implement a security and technical protection training plan
Security Operations	<p>Goal: Strengthen the group's information security level through detection (monitoring), operation and development of security solutions</p> <ul style="list-style-type: none"> • Security Controls/CERT • Diagnosing security vulnerabilities • Building Security Solutions and Operations (SI/SM) • Security Consulting (SI)

Information Security Organizational Structure and Roles by roles]

Category	Responsibilities and Authority
Chief Information Security Officer (CISO) Chief Privacy Officer (CPO)	<ul style="list-style-type: none"> • Approve risk assessment criteria and results • Direct risk management plan implementation • Determine the target risk level
Data Protection Officer	<ul style="list-style-type: none"> • Establish risk assessment baselines (calculate threats, vulnerabilities, and risk) • Perform asset-specific vulnerability assessments and manage results • Perform risk assessments and report on risk management plans • Create and manage risk assessment reports • Implement risk management plans and monitor results • Manage residual threats
Information Asset Officer	<ul style="list-style-type: none"> • Asset Management • Locate and identify assets and perform asset valuations • Maintain asset status and inventory • Implement information security measures for each asset
Security Officer	<ul style="list-style-type: none"> • Establish policies/guidelines and standards for defense and security work • Revised security bylaws in response to changes in policies related to defense industry security work • Integrated survey response and inspections • Review the security of externally exported materials
Technical Protection Officer	<ul style="list-style-type: none"> • Establish policies/guidelines and standards for defense technology protection • Identify and manage managed technologies • Establish and implement self-diagnosis plans for domestic sites and overseas offices • Defense Technology Protection Review Board Operations • Revision of technology protection guidelines due to changes in defense technology protection laws and regulations • Integrated survey response and inspections
Personnel/Facility/Information Security/Military Secrets Officer	<ul style="list-style-type: none"> • Conduct Background Checks and Manage Results • Manage Authorization for Handling Classified and Cryptographic Materials • Manage Authorization and Revocation for Access Personnel • Control of import and export documents, information and communication devices, etc. • Monitor security systems and identify improvement needs • Manage access control to protected (controlled/restricted) areas • Manage the Receipt and Destruction of Military Secrets

Governance

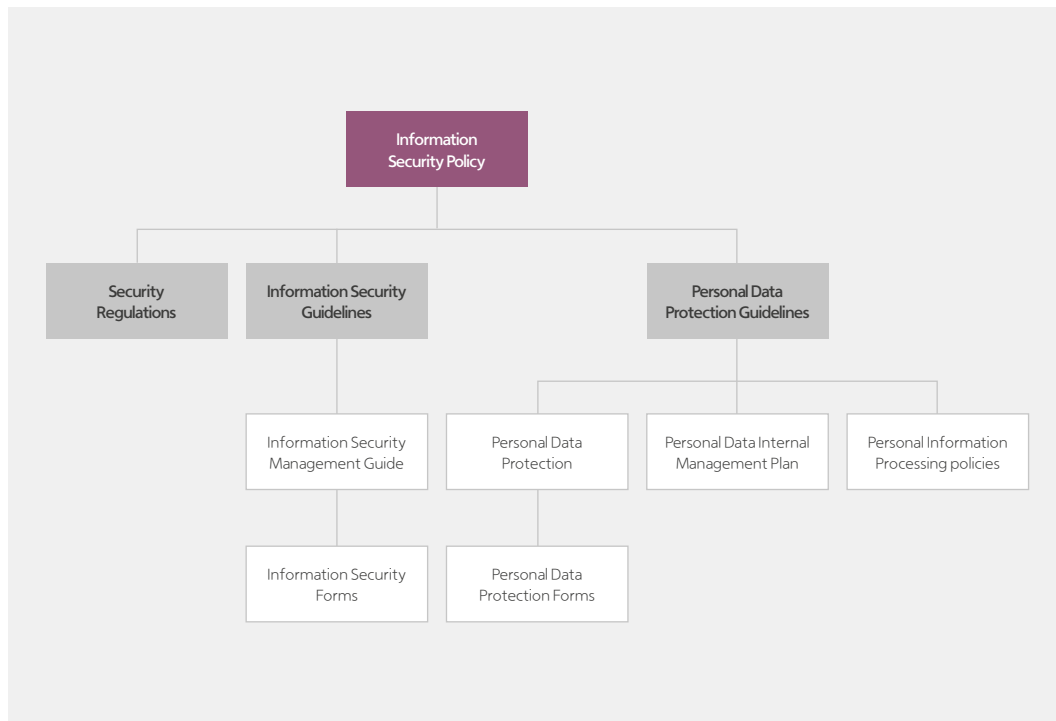
Information Security

Information Security Management Framework

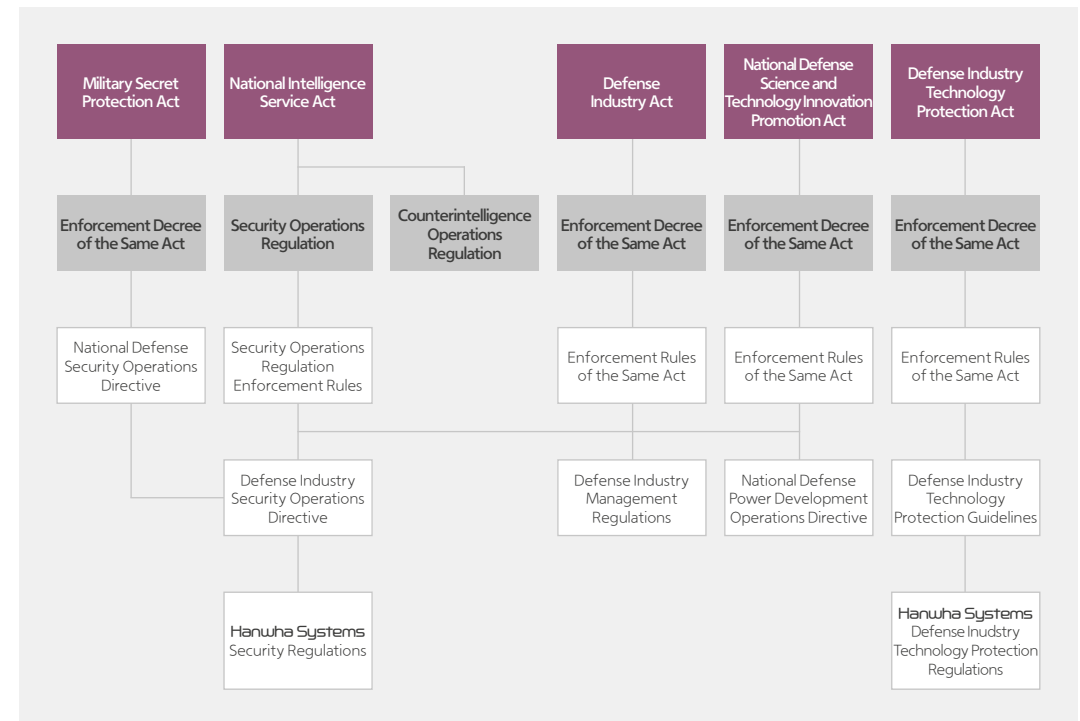
Information privacy management policy

Hanwha Systems regularly establishes information protection policies to comply with domestic and international information security laws and regulations, including the Personal Information Protection Act and the Information and Communication Network Act, and revises and publishes them at least once a year. Based on the information security policy, we check the security level of our internal security system, website, and IT infrastructure, manage physical security, and establish and manage countermeasures in the event of a security incident. In addition, to protect defense industry technology, we conduct activities to protect defense industry-related secrets and technologies in accordance with the Defense Industry Security Work Order and the Defense Industry Technology Protection Guidelines, and enact 35 types of security management measures for each field in accordance with the 'Internal Regulations on Defense Security and Technology Protection' to safely protect defense industry-related secrets and technologies.

Information Security Management Policy



Defense Security and Defense Technology Protection Policy



Governance

Information Security

Information Security Management Framework

Security controls

Hanwha Systems operates systematic security management measures by technology, personnel, facilities, documents, and information and communication in consideration of the importance of information security for defense companies and the operation of IT systems for customers. As all matters related to the defense industry, not just technical data, can affect national security and the economy, we set up work areas as 'technology protection zones' to control access by unauthorized persons and install security solutions such as DRM and DLP to maintain the best security status. Furthermore, for defense-related materials provided to Suppliers, we provide a safe network environment by securing security reliability by configuring a dedicated network and establishing a system to block external access.

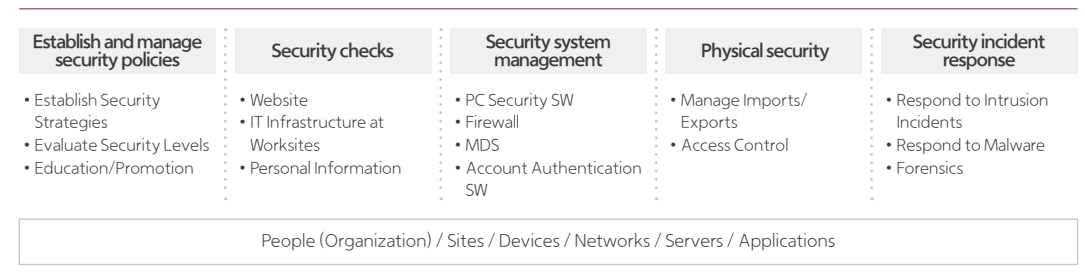
Details of security controls



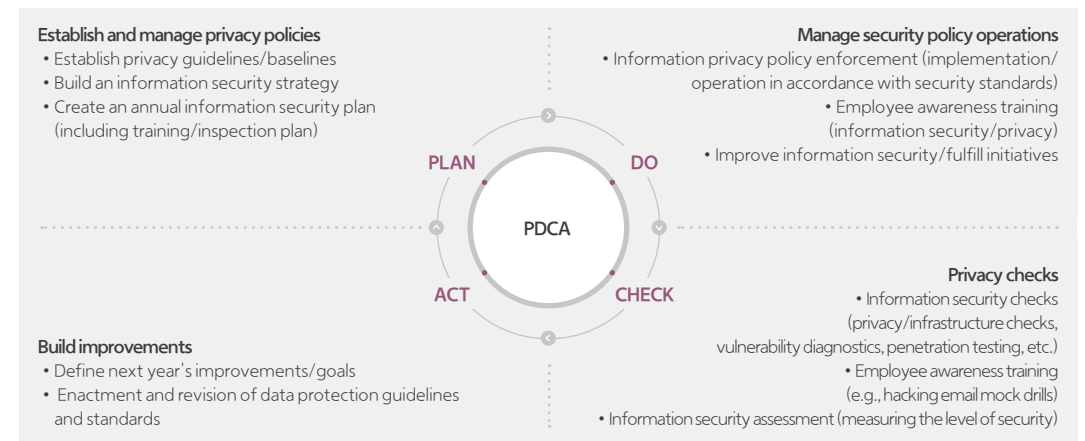
Information Privacy and Security Management Framework

Based on the information protection policy, Hanwha Systems controls and manages five areas of 'personnel, sites, terminals, IT services, and infrastructure (servers, networks, etc.)' in five areas: 'security policy establishment and management', 'security inspection', 'security system management', 'physical security', and 'security incident response'. In addition, the company has established and operates an information protection management process that applies the PDCA model to operate an efficient internal security management system.

Configure Security Management Scheme



PDCA



Governance

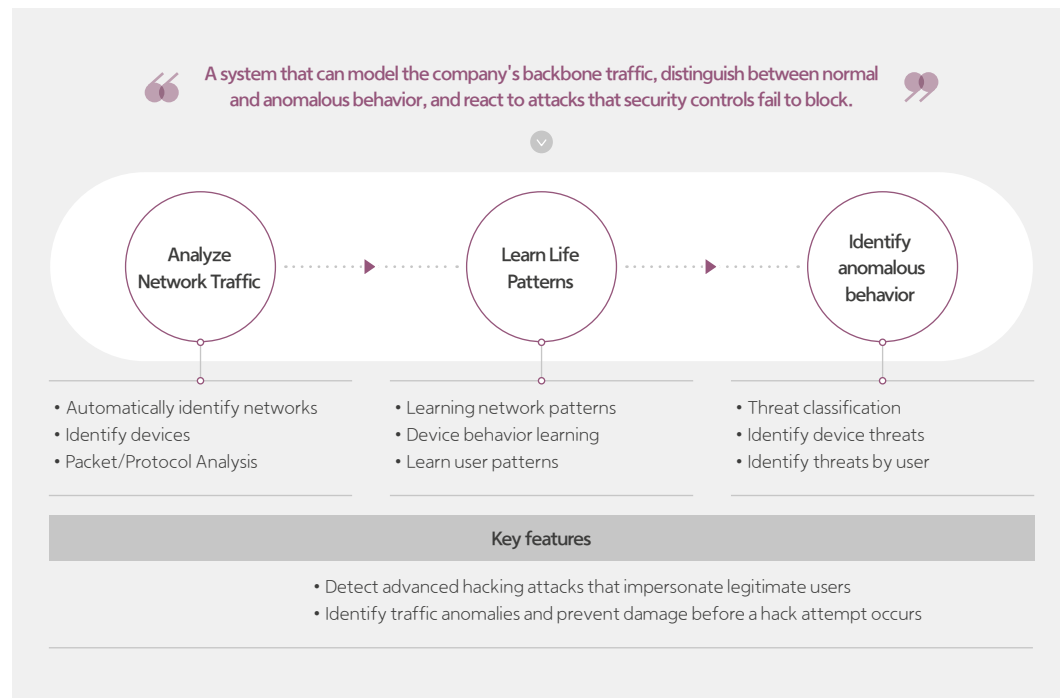
Information Security

Key Information Security Activities

Operationalize anomaly detection solutions

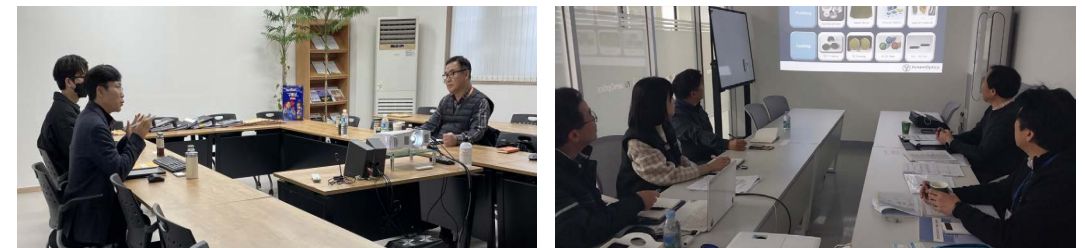
Hanwha Systems ICT Business has developed and operates an End-Point Anomaly Detection System (EADS) to prevent hacking attacks such as ransomware and security incidents such as leakage of personal information and insider data. EADS is a system that detects and analyzes events that are outside the normal scope of use of end-points (terminals, users) and internal information systems and prevents behaviors that could lead to security incidents. Since the introduction of EADS, Hanwha Systems has defined anomaly scenarios for each type of security incident, such as data leakage, malware infection, and system hijacking, in detail, and has established an anomaly detection system that immediately detects and responds to anomalies when they occur, thereby responding appropriately to internal and external attack activities.

Anomaly Detection Solution Key Features



National trade secret protection activities

As a leader in the national defense industry, Hanwha Systems handles customer information and core defense technologies in the course of providing major products and services. Therefore, we strictly comply with relevant laws and regulations regarding customer information as well as core national defense technologies, and we regularly submit the results of defense technology protection training for Former employees to relevant agencies every year. In particular, we are always prepared for cyber attacks based on a security control system that operates in real time 365 days a year. As a result of these efforts, we achieved excellent results of 'Excellent (98.6%)' in the security measurement conducted by the National Defense Intelligence Command in 2022, 'Excellent (96.2%)' in the security measurement for the development office of the Hanwha System Business Portal (Cleverse) in 2023, and 'Excellent (97%)' in the security measurement for the installation of the secret dispersal vault at the Jukjeon Data Center. Furthermore, we maintain the highest security level by conducting inspections and training for defense security and defense technology protection for major suppliers, and in 2023, we visited suppliers' sites more than 80 times to conduct inspection and guidance activities for suppliers' security and technology protection.



Onsite visits to inspect and train Suppliers

Insider information leakage prevention framework

Hanwha Systems has established PC security settings, document encryption, separation of internal and external network networks, and intelligent threat response systems to prevent internal information from being leaked. In addition, we strictly control access to internal servers and DBs by unauthorized personnel and terminals. We specify information protection-related compliance in our contracts with suppliers and conduct regular audits of personal information trustees. In particular, at data centers that hold customer information, we install X-ray checkpoints and metal detectors to control the import and export of portable storage media and computer devices, and monitor the facilities at all times. Furthermore, in preparation for external cyberattacks, we are constantly checking our IT infrastructure to detect and eliminate vulnerabilities, and identifying publicly known software security vulnerabilities (CVEs) to respond quickly.

Governance

Information Security

Key Information Security Activities

Privacy disclosures

Hanwha Systems has been conducting information protection disclosure activities since 2022 to objectively introduce its information protection status to stakeholders, including customers. Through information protection disclosure, we transparently disclose the status of internal information protection investments, manpower, and certifications, and actively carry out activities to prevent security incidents. In 2023, we invested 10.7% (approximately KRW 6.47 billion) in the information technology sector out of the total information protection budget, and enhanced systems such as the email simulation training system and group common media control.

Information Security Disclosure Comprehensive Portal

Category	Hanwha Systems		
	2022	2023	
Information protection Investment Status (KRW)	Investment in Information Technology (A)	KRW 60,514,103,825	* As Disclosure of Information Protection Investment Status is scheduled for June 2024, the figures will be released then.
	Investment in Information Security (B)	KRW 6,471,064,085	
	B/A	10.7%	

Information security certifications

Hanwha Systems is recognized by stakeholders, including shareholders and investors, for the excellence of its internal information protection system as it has acquired and operated domestic and international certifications in the field of information protection to ensure the stability and reliability of its information systems. We first obtained the Information Security Management System (ISO 27001) certification in 2005, and have continuously maintained the Information Security Management System (ISMS) in 2013 and the Cloud Service Information Security Certification (ISO 27017) in 2016.

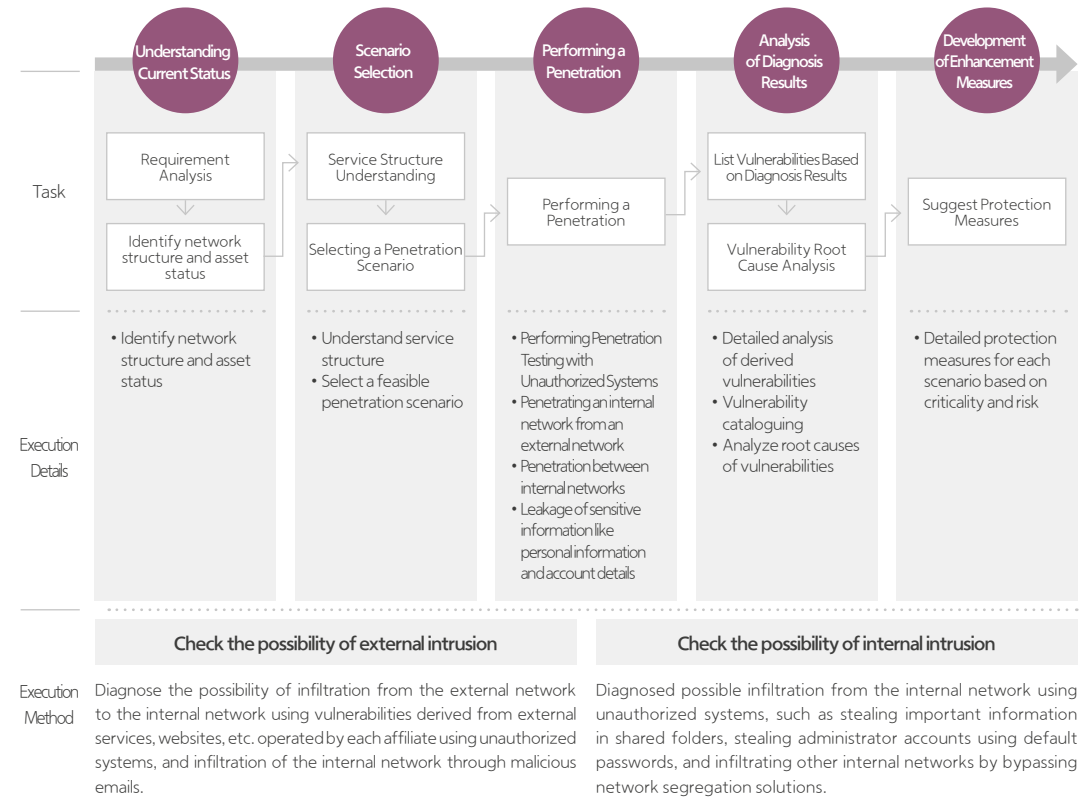
Information Security External Certification Status

Category	External certification status	Expiration date
Information security management system	ISO 27001	2023.03.01 ~ 2025.10.30
Information security management system	ISMS	2023.01.15 ~ 2026.01.14
Cloud services information security	ISO 27017	2023.03.01 ~ 2025.10.30
Firewalls and IPS	EAL 4	
Antivirus (V3)	EAL 3	
Integrated internal information leakage prevention audit system (DLP)	EAL 2	

Preventive training for security incidents

Hanwha Systems conducts regular penetration testing and malicious email simulations to prevent security incidents and respond to increasingly sophisticated cyber threats. The penetration testing is carried out in five stages: assessing the current situation, selecting scenarios, conducting the penetration test, analyzing the diagnostic results, and establishing security enhancement measures. Each year, the penetration scenarios are refined to strengthen response capabilities. Additionally, to actively combat malicious emails such as phishing attempts to steal credentials and those containing malware, we conduct quarterly malicious email simulation training for all employees.

Penetration Testing Procedures



Governance

Information Security

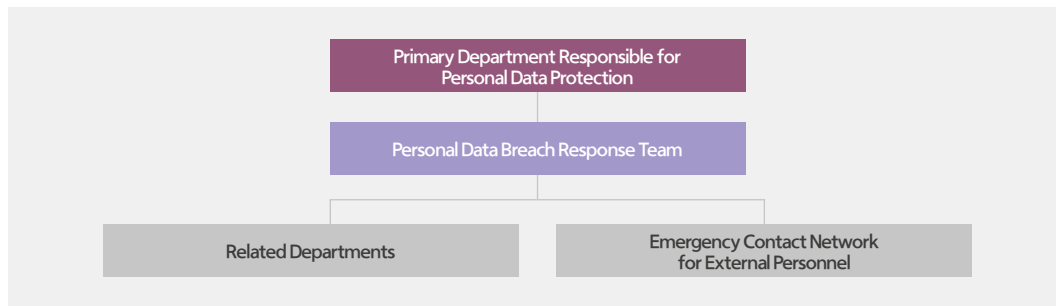
Privacy

Privacy framework

Hanwha Systems regularly conducts status checks and improvement activities on personal information centered on the CPO. In addition to 'unique identification information,' 'password,' and 'biographical information,' we have strengthened regulations to store 'card number' and 'account number' in addition to 'unique identification information,' 'password,' and 'biographical information.' In addition, we take thorough preventive measures to prevent leakage, alteration, theft, loss, or damage of personal information by immediately destroying personal information after its expiration date.

[Hanwha System Privacy Policy](#)

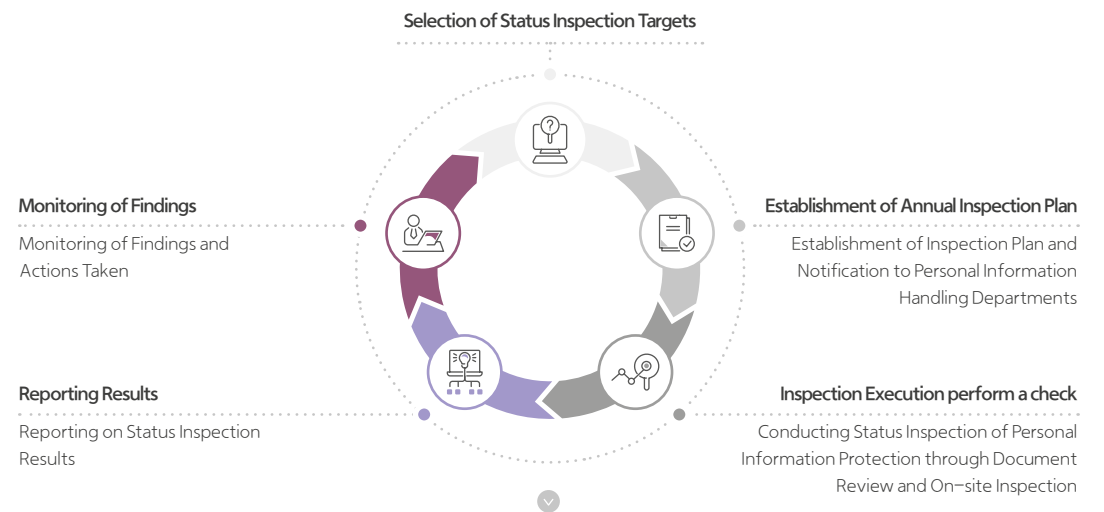
Personal Data Breach Response Organization



Personal Data Breach Response Procedures



Privacy Management Process



- Conduct annual status inspections to verify compliance with personal information protection regulations and assess the effectiveness of personal information protection management activities.
- The personal information protection manager reviews the inspection result reports, formulates action plans, and manages the details of the actions taken.



- Planning**
 - Establishment of Status Inspection Plan
- Audit Fieldwork**
 - Review related resources
 - Handler interviews
 - Due diligence checks
 - Compliance Assessment
 - Drafting of Status Inspection Report
- Follow up**
 - Notification of inspection results
 - Create an action plan
 - Action plan reporting

Governance

Information Security

Privacy

Personal data breach response

Hanwha Systems has defined and managed the types of personal information infringement incidents, established an organizational system for responding to personal information infringement incidents, and established a response process for the expected paths (online, offline, etc.) that may occur. In addition, Hanwha Systems takes 12 personal information protection measures to prevent infringement incidents, and minimizes customer information risks by not only responding to incidents but also taking measures to prevent recurrence.

Personal Data Protection Measures

- ① Account and access rights management
- ② Access control management
- ③ Password management
- ④ Storage access logs and prevention of tampering
- ⑤ Security configuration of personal data processing systems
- ⑥ Vulnerability assessment
- ⑦ Encryption of personal data
- ⑧ Encryption during personal data transmission
- ⑨ Security configuration of PCs handling personal data
- ⑩ Mobile device security management
- ⑪ Security management of work PCs and storage media
- ⑫ Protective measures during printing and copying



Strengthening Technical and Information Security Competency

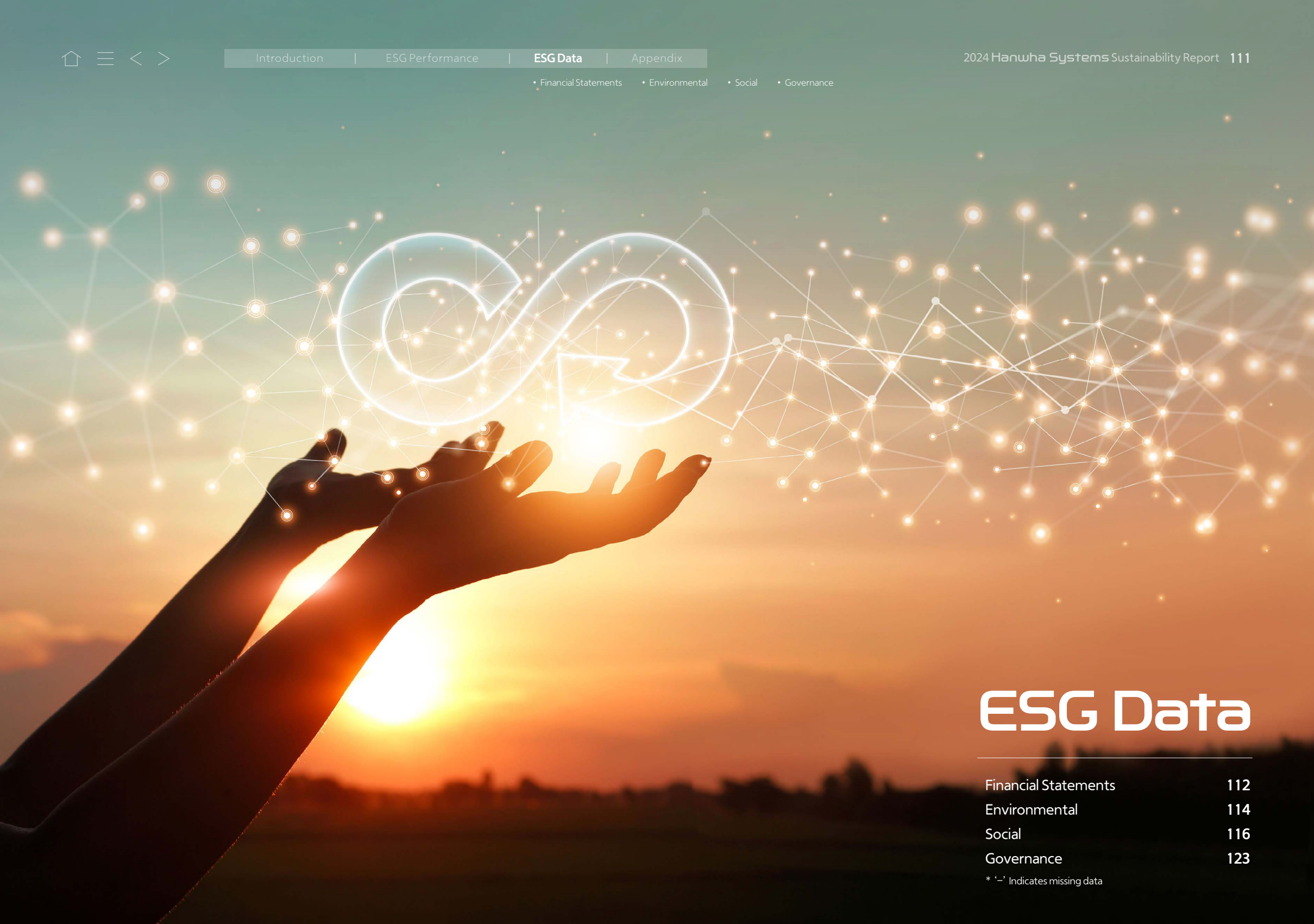
Employee technical and information security training

Hanwha Systems regularly conducts trainings to raise employees' awareness of the importance of personal information protection and improve the level of personal information management. In 2023, we provided training on personal information safety measures and data security management to 650 personal information processing system operators and developers, and secure coding training to 555 Java language developers. In addition, we are conducting various activities to raise awareness of information protection, such as writing security pledges, email mock drills, and information protection quiz events, along with information protection training. In particular, in 2024, we plan to provide training for personal information handlers and operators/developers, as well as special lectures on personal information protection for managers.

Meanwhile, Hanwha Systems' Defense Business appoints security officers and heads of technical protection departments for each department, and completes regular training organized by the Defense Acquisition Program Administration every year and conducts its own self-diagnosis to raise awareness of the importance of defense industry technology protection. In 2023, we conducted training for about 2,000 people, including employees and resident suppliers, and in 2024, we plan to provide grades for suppliers with technology to conduct customized security and technology protection work.

Technical and information security training and management of suppliers

Hanwha Systems provides training, management, and guidance to prevent information security incidents by external and suppliers' personnel and conducts periodic security compliance checks. Hanwha Systems' Defense Business has conducted information security and privacy training for more than 130 suppliers, checked the status of information protection management and conducted information protection assessments when registering new companies. In addition, in accordance with the partial revision of the Defense Industry Technology Protection Guidelines in 2022, the Defense Industry Technology Protection Council was formed to inspect and consult with suppliers on security and technology protection activities. In addition, we checked the policy changes of related organizations such as the Defense Industry Technology Protection Guidelines and the Defense Industry Security Business Order every year to revise the Security Policy and the Defense Industry Technology Protection Policy, and based on this, we conducted security and technology protection activities for Suppliers.



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* '-' Indicates missing data

Financial Statements

Consolidated statement of financial position

Category	Unit	2021	2022	2023
Assets				
Current assets	KRW million	2,676,109	2,326,840	1,890,140
Cash and cash equivalents	KRW million	1,636,831	1,228,218	476,089
Accounts receivable and other current receivables	KRW million	181,115	208,561	202,103
Other current financial assets	KRW million	27,567	25,669	34,748
Other current assets	KRW million	424,551	469,953	676,114
Current Inventory	KRW million	406,045	372,963	501,085
Assets held for sale or group of disposed assets classified as held for sale or for distribution to owners.	KRW million	–	21,477	0
Non-current assets	KRW million	1,218,193	1,618,788	2,593,071
Long-term trade receivables and other noncurrent receivables	KRW million	742	0	0
Non-current financial assets at fair value through profit or loss	KRW million	105,867	251,149	284,780
Non-current financial assets at fair value through other comprehensive income	KRW million	61,517	302,600	180,463
Other non-current financial assets	KRW million	17,073	23,967	28,465
Investments in associates	KRW million	28,550	16,433	992,509
Property, plant, and equipment	KRW million	256,906	274,368	347,646
Right-of-use assets	KRW million	101,069	100,640	117,782
Intangible assets	KRW million	562,163	557,834	558,922
Other noncurrent assets	KRW million	2,586	4,409	4,616
Deferred tax assets	KRW million	81,720	87,387	77,888
Total Assets	KRW million	3,894,303	3,945,628	4,483,211

Category	Unit	2021	2022	2023
Liabilities				
Current liabilities	KRW million	1,363,163	1,618,536	1,951,415
Accounts payable and other current liabilities	KRW million	125,173	160,863	213,096
Current borrowings and debentures	KRW million	29,986	80,000	162,335
Other current financial liabilities	KRW million	70,856	79,617	93,425
Other current liabilities	KRW million	1,111,361	1,252,876	1,432,347
Current provisions	KRW million	10,475	22,954	31,755
Current income tax liability	KRW million	15,312	14,840	18,458
Liabilities included in disposal group classified as held for sale	KRW million	–	7,385	0
Non-current liabilities	KRW million	291,378	308,140	377,670
Long-term trade payables and other noncurrent liabilities	KRW million	469	127	0
Noncurrent borrowings and noncurrent notes payable	KRW million	29,959	29,976	49,899
Other non-current financial liabilities	KRW million	80,086	77,868	99,017
Retirement benefit obligations	KRW million	160,419	180,295	206,770
Non-current provisions	KRW million	20,445	19,867	21,984
Deferred tax liabilities	KRW million	–	7	0
Debt total	KRW million	1,654,541	1,926,676	2,329,085
Capital				
Equity attributable to owners of a controlled entity	KRW million	2,222,498	2,000,339	2,139,818
Capitalization	KRW million	944,597	944,597	944,597
Capital surplus	KRW million	1,084,939	1,085,520	1,100,087
Other components of equity	KRW million	(34,121)	(34,121)	(34,121)
Accumulated other comprehensive income	KRW million	2,354	(112,582)	(83,217)
Retained earnings (deficit)	KRW million	224,730	116,925	212,472
Non-controlling interest	KRW million	17,263	18,613	14,308
Total Equity	KRW million	2,239,761	2,018,952	2,154,126
Total equity and debt	KRW million	3,894,303	3,945,628	4,483,211

Economic and Business Performance

Stock and dividend status

Category	Unit	2021	2022	2023
Total cash dividends	KRW million	29,919	46,748	52,358
Dividend type	–	Cash Dividends	Cash Dividends	Cash Dividends
Cash dividend payout ratio	%	30.57	-57.89	15.26
Cash dividends per share (common stock)	KRW	160	250	280
Market Dividend Rate	%	1.02	2.26	1.68
Whether to introduce a written voting system	–	Yes	Yes	Yes
Whether to introduce electronic voting system	–	Yes	Yes	Yes
Shareholder communications	Number of conferences	Cases	11	9
	Number of company briefings	Cases	11	9

Distribution of Economic Value¹⁾

Category	Unit	2021	2022	2023
Shareholders and investors	Dividends	KRW million	29,919	46,748
	Interest expense	KRW million	4,196	5,749
Employees	Salaries	KRW million	349,232	407,759
	Employee Benefits	KRW million	68,773	77,999
Suppliers	Purchase cost	KRW million	1,420,562	1,368,052
Local community	Company donations	KRW million	2,140	2,228
Government	Corporate taxes	KRW million	30,176	23,741

1) Correcting data due to changes in the calculation basis

Stock Ownership

Category	Unit	2021	2022	2023
Total percentage of ownership by the CEO	%	0.01	0.01	0.01
Shareholders with 5% or more ownership	Hanwha Aerospace Co., Ltd.	%	46.73	46.73
	Hanwha Energy Co., Ltd.	%	12.80	12.80
Stocks	Number of issued shares	Shares	188,919,389	188,919,389
	Number of outstanding shares	Shares	186,993,261	186,993,261

Research and Development Investments

Category	Unit	2021	2022	2023
R&D investment expenses	KRW million	353,949	324,039	455,300
R&D investment ratio to revenue	%	16.94	14.81	18.61
Number of specialized researchers	Persons	1,075	1,317	2,335
Number of patents and trademarks held (domestic cumulative)	Cases	1,653	1,778	1,833

Government Assistance

Category	Unit	2021	2022	2023
Government subsidies	KRW million	2,163	2,456	5,070

Environmental

* Environmental data is collected and managed for the Gumi Site, Yongin Site (Yongin Research Center), and Jukjeon Data Center.

GHG

Category	Unit	2021	2022	2023
Total GHG emissions (Scope 1+ Scope 2)	tCO ₂ -eq	19,642.4	20,921.0	22,006.3
Direct (Scope 1) emissions	tCO ₂ -eq	543.9	600.0	594.8
Indirect (Scope 2) emissions	tCO ₂ -eq	19,098.5	20,321.0	21,411.5
GHG emission Intensity (as a percentage of revenue)	tCO ₂ -eq /KRW 100million	0.94	0.96	0.90

Energy

Category	Unit	2021	2022	2023
Total energy consumption	TJ	406.6	432.6	457.5
Direct (non-renewable) energy consumption	TJ	9.3	9.7	10
Gasoline	TJ	1.6	1.8	1.7
Diesel	TJ	2.8	3.2	3.2
City Gas	TJ	0	0	5.1
Other	TJ	5	4.8	0.1
Indirect (non-renewable) energy consumption	TJ	397.3	422.9	447.4
Power	TJ	397.3	422.8	447.4
Steam	TJ	0	0	0
Heating and cooling	TJ	0	0	0
Other	TJ	0	0.1	0
Percentage of grid power	%	97.7	97.7	97.8
Renewable energy usage (solar)	MWh	10.6	15.6	29.1
Percentage of renewable energy used	%	0.009	0.013	0.116
Consumption intensity (as a percentage of revenue)	GJ/ KRW 100 million	0.019	0.020	0.019

Water and Wastewater

Category	Unit	2021	2022	2023
Gumi Site	Ton	52,374	54,415	54,813
Yongin Site	Water usage	21,258	14,590	20,383
Jukjeon Data Center	Ton	23,271	23,739	29,328
Total water usage	Ton	96,903	92,744	104,524
Gumi Site	Ton	52,374	54,415	54,813
Yongin Site	Tap Water usage	21,258	14,590	20,383
Jukjeon Data Center	Ton	23,271	23,739	29,328
Total water usage	Ton	96,903	92,744	104,524
Industrial water usage	Ton			Unused
Groundwater usage	Ton			Unused
Surface water usage	Ton			Unused
Storm water usage	Ton			Unused
Sewage discharge	Ton	All water used at each Site is treated to sewage		
Wastewater discharge	Ton	No emissions		
Water intensity (as a percentage of revenue)	Ton/ KRW 100 million	4.64	4.24	4.26

* Hanwha Systems is a non-discharger of water pollutants such as TOC, COD, Board of Directors, SS, etc.

* Hanwha Systems is managing sewage and wastewater with equally rigorous standards.

Chemical Usage¹⁾

Category	Unit	2021	2022	2023
Chemical usage at Gumi site	Ton	0.25	0.27	1.24
Chemical Usage at Yongin Site	Ton	0.38	0.49	0.81
Total	Ton	0.63	0.76	2.05

1) Correcting data due to changes in the calculation basis from 2023

* Jukjeon Data Center does not use chemicals.

* We are not subject to the criteria of the Pollutant Release and Transfer Registers (PRTR) (industries that do not use hazardous chemicals).

Environmental

Air Pollutant Emissions¹⁾

Category	Unit	2021	2022	2023	
Air pollutants	NOx (nitrogen oxides)	kg	-	-	170.4
	SOx (sulfur oxides)	kg	-	-	45.0
	Dust	kg	32.0	26.2	48.2

1) For NOx and SOx, data is being managed from 2023; for ozone depleting substances (ODS), not applicable

Environmental Management System

Category	Unit	2021	2022	2023
Environmental management system (ISO 14001) certification rate	%	100	100	100
Number of certified sites	Number	1	1	1
Number of sites eligible for certification	Number	1	1	1
Green company certification	Number	1	1	1

Environmental Regulations

Category	Unit	2021	2022	2023
Number of legal violations	Cases	0	0	0
Fine total	KRW million	0	0	0
Number of lawsuits filed	Cases	0	0	0
Number of non-monetary sanctions	Cases	0	0	0
Environmental liabilities	KRW million	0	0	0

Waste¹⁾

Category	Unit	2021	2022	2023		
Total waste generation	Ton	244.5	252.9	254.9		
Waste intensity	Ton/ KRW 100 million	0.012	0.012	0.010		
Amount of designated waste (hazardous waste) generation	Ton	8.1	4.8	4.5		
General (non-hazardous waste) generation	Ton	236.4	248.1	250.4		
Subtotal	Ton	8.1	4.8	4.5		
Designated Waste	By type	Landfill	Ton	0	0	0.5
		Burning	Ton	6.3	3.5	4.0
	By method	Recycling	Ton	1.8	1.3	0
		Self-processing	Ton	0	0	0
		Outsourcing to a processor	Ton	8.1	4.8	4.5
Subtotal	Ton	236.4	248.1	250.4		
General Waste	By type	Landfill	Ton	0	0	0
		Burning	Ton	0	0	0
	By method	Recycling	Ton	236.4	248.1	250.4
		Self-processing	Ton	0	0	0
		Outsourcing to a processor	Ton	236.4	248.1	250.4
Total waste recycling	Ton	238.2	249.5	250.4		
Total waste recycling rate	%	96.7	98.1	98.2		
Recycling waste	Designated Waste	Recycling	Ton	1.8	1.3	0
	General Waste	Recycling	Ton	236.4	248.1	250.4

1) Correcting data due to changes in the calculation basis

Social

Health and Safety Management System

Category	Unit	2021	2022	2023
Health and Safety Management System (ISO 45001) certification rate	%	100	100	100
Number of certified sites		1	1	1
Number of sites eligible for certification	Number	1	1	1
Number of OHSAS 18001 Certified Sites (or KOSHA 18001)		2	2	2

Occupational Safety Training

Category	Unit	2021	2022	2023
Occupational Safety and Health Training Hours	Hrs.	49,796	55,648	58,308
Number of people attending occupational safety training	Persons	6,761	7,526	8,319

Health Management

Category	Unit	2021	2022	2023
Health examinations conducted	Total	4,936	5,068	5,710
	Employees	3,514	3,902	4,119
	Spouse and family	1,422	1,166	1,591

Industrial Accidents

Category	Unit	2021	2022	2023
Total working hours	Employees	8,080,512	8,726,784	9,931,296
	Suppliers	1,509,240	1,831,495	1,623,618
Number of injured workers	Employees	0	0	0
	Suppliers	0	0	2
Number of injuries (fatalities + serious injuries + minor injuries)	Employees	0	0	0
	Suppliers	0	0	2
Number of fatalities	Employees	0	0	0
	Suppliers	0	0	0
Number of serious injuries	Employees	0	0	0
	Suppliers	0	0	0
Number of minor injuries	Employees	0	0	0
	Suppliers	0	0	2
Number of serious accidents	Employees	0	0	0
	Suppliers	0	0	0
Industrial accident rate (Number of injured workers / Number of workers) * 100	Employees	0	0	0
	Suppliers	0	0	0.1
LITR Number of work-related injuries resulting in lost workdays / Total working hours * 1,000,000	Employees	0	0	0
	Suppliers	0	0	1.3
OFIR Number of occupational illness cases / Total working hours * 1,000,000	Employees	0	0	0
	Suppliers	0	0	0
TRIR Number of work-related injuries / Total working hours * 1,000,000	Employees	0	0	0
	Suppliers	0	0	1.3
Number of lost workdays	Day	0	0	146

Social

Employee status

Total Employment

Category	Unit	2021	2022	2023
Total number of employees	Persons	3,931	4,292	4,729
By employment type	Regular employees	3,742	4,051	4,457
	Percentage of regular employees	95.2	94.4	94.3
	Non-regular employees	189	241	272
	Percentage of non-regular employees	4.8	5.6	5.8
Classification of non-regular workers ¹⁾	Part-time workers	10	11	13
	Percentage of Part-time workers	5.3	4.6	4.8
	Day workers	179	230	259
	Day worker rate	94.7	95.4	95.2
By gender	Men	3,386	3,667	4,005
	Women	545	625	724
By age group	Under 30	511	665	914
	30s	1,504	1,574	1,695
	40s	1,312	1,374	1,394
	50s and above	604	679	726
Men by job position	Executives	65	66	61
	Managers (Assistant Director and above, excluding executives)	1,330	1,431	1,550
	Mid-level managers (assistant managers, managers)	1,542	1,594	1,639
	Non-managerial employees (associates and below)	449	576	755
Women by job position	Executives	1	0	0
	Managers (Assistant Director and above, excluding executives)	62	65	79
	Mid-level managers (assistant managers, managers)	258	337	375
	Non-managerial employees (associates and below)	224	223	270
By region	Headquarters workers	2,476	2,594	1,446
	Regional office employees	1,455	1,698	3,283

1) No service workers, temporary workers, or specialty workers

Length of Service¹⁾

Category	Unit	2021	2022	2023	
Average length of service	Average length of service for regular employees	Years	10.8	9.8	10.3
Defense sector	Men	Years	12.8	11.6	12.4
	Women	Years	8.1	8.1	8.8
ICT sector	Men	Years	8.5	7.4	7.5
	Women	Years	6.3	5.8	5.8

1) Data correction due to change in calculation basis (based on business report)

Employee Diversity¹⁾

Category	Unit	2021	2022	2023	
Women managers	Number of women managers (assistant managers and above)	Persons	321	402	454
	Percentage of women managers	%	9.9	11.5	12.2
Employment of socially disadvantaged individuals (regular + non-regular)	Number of employees with disabilities	Persons	51	57	76
	Percentage of employees with disabilities	%	1.3	1.3	1.6
	Number of patriots and veterans employed	Persons	59	62	59
	Percentage of patriots and veterans employed	%	1.5	1.4	1.3
Hiring foreign nationals	Number of foreign employees	Persons	4	5	9
	Percentage of foreign employment	%	0.1	0.1	0.2

1) Correcting data due to changes in the calculation basis

Social

Employee status

New Hires

Category	Unit	2021	2022	2023
Total number of new hires	Persons	454	667	794
By employment type	Regular	345	523	640
	Non-regular	109	144	154
By gender	Men	372	534	624
	Women	82	133	170
By age	Under 30	149	314	470
	30s	231	258	208
	40s	48	70	81
	50s and above	26	25	35
By region	Domestic	454	667	794
	Overseas	0	0	0
Defense sector	Regular	202	286	459
	Non-regular	50	114	96
ICT sector	Regular	143	237	181
	Non-regular	59	30	58

Parental Leave¹⁾

Category	Unit	2021	2022	2023	
Maternity leave users	Number of users	명	24	14	18
	Number of Returnees	명	24	14	18
	Return rate	%	100	100	100
Parental leave users	Men	명	6	13	12
	Women	명	20	15	17
Those eligible to return after parental leave	Men	명	17	18	27
	Women	명	25	29	24
Those who have returned to work after parental leave	Men	명	17	18	26
	Women	명	24	29	20
Rate of return to work after parental leave	Men	%	100	100	96.3
	Women	%	96	100	83.3
Employees with 12 months or more of service after returning to work from parental leave ²⁾	Men	명	-	-	15
	Women	명	-	-	26
Percentage of employees who return to work after parental leave and stay for 12 months or longer ²⁾	Men	%	-	-	94
	Women	%	-	-	100

1) Correcting data due to changes in the calculation basis

2) Manage data from 2023 onward

Social

Employee Turnover and Retirements¹⁾

Category	Unit	2021	2022	2023	
Total turnover and retirements (excluding contingent workers)	Persons	265	330	414	
Reason for turnover/retirement	Involuntary turnover (retirement)	Subtotal (involuntary)	70	81	193
		Retirement age/honorable retirement	28	16	35
	Disciplinary dismissals	0	1	0	
	recommended resignation	0	0	0	
	Other (affiliate transfers, contract expiration, etc.)	42	64	158	
	Voluntary turnover (retirement)	Subtotal (voluntary)	195	249	221
		Desired retirement	0	0	0
		Voluntary retirement	195	249	221
	Involuntary turnover (retirement) rate	%	1.8	1.9	4.1
	Voluntary turnover (retirement) rate	%	5.0	5.8	4.7

1) Correcting data due to changes in the calculation basis

Employee Training Results¹⁾

Category	Unit	2021	2022	2023	
Total training costs	Subtotal	KRW million	2,239	2,868	2,325
	Defense sector	KRW million	966	1,317	1,048
	ICT sector	KRW million	1,273	1,551	1,277
Total training hours	Subtotal	Hrs.	155,518	136,498	134,490
	Defense sector	Hrs.	65,169	73,267	77,353
	ICT sector	Hrs.	90,349	63,231	57,137
Total number of employees participating in training	Subtotal	Persons	3,948	4,207	4,744
	Defense sector	Persons	2,559	2,707	3,155
	ICT sector	Persons	1,389	1,500	1,589
Training cost per person	Subtotal	KRW million /Persons	0.6	0.7	0.5
	Defense sector	KRW million /Persons	0.4	0.5	0.3
	ICT sector	KRW million /Persons	0.9	1.0	0.8
Training hours per person	Subtotal	Hrs./Persons	39.4	31.8	28.3
	Defense sector	Hrs./Persons	25.5	27.1	24.5
	ICT sector	Hrs./Persons	65.0	42.2	36.0
Number of online job training academy courses	Number	89	110	99	
Number of online job training academy course	Persons	3,447	2,934	1,872	
Number of academic conferences attended (cumulative/current students + graduates)	Persons	141	155	175	

1) Correcting data due to changes in the calculation basis

Social

Employee Human Rights Training¹⁾

Category		Unit	2021	2022	2023
Human rights training	Total	Hrs.	10,938	12,525	14,106
	Percentage of employees who have completed human rights training	%	-	97.2	99.4
	Defense sector	Hrs.	-	7,863	9,405
	ICT sector	Hrs.	-	4,662	4,701
Sexual harassment prevention training	Subtotal	Hrs.	3,603	4,175	4,702
	Defense sector	Hrs.	-	2,621	3,135
	ICT sector	Hrs.	-	1,554	1,567
Disability Awareness Training	Subtotal	Hrs.	3,732	4,175	4,702
	Defense sector	Hrs.	-	2,621	3,135
	ICT sector	Hrs.	-	1,554	1,567
Workplace anti-harassment training	Subtotal	Hrs.	3,603	4,175	4,702
	Defense sector	Hrs.	-	2,621	3,135
	ICT sector	Hrs.	-	1,554	1,567

1) Since 2022, we have been collecting human rights training data by business sector, with 1 hour of training per person per program

Employee Benefits

Category		Unit	2021	2022	2023
Retirement plan support	Enrollment (DC)	Persons	142	168	313
	Funds under management – separate basis (DC)	KRW million	10,907	12,888	29,226
	Enrollment (DB)	Persons	1,991	1,980	1,844
	Funds under management – consolidated criteria (DC)	KRW million	59,102	57,430	57,440

Performance Evaluations

Category	Unit	2021	2022	2023
Number of employees subject to performance evaluation	Persons	3,078	3,512	4,166
Number of employees who received regular performance evaluation	Persons	3,078	3,512	4,072
Percentage of employees who received regular performance evaluation	%	100	100	97.7

Employee Salaries

Gender Salaries

Category		Unit	2021	2022	2023
Average base salary by gender	Average base salary for men	KRW	71,258,669	75,822,452	78,224,276
	Average base salary for women	KRW	59,274,897	63,124,615	65,768,733
	Ratio of man to women compensation	%	83.2	83.3	84.1

Average Base Compensation by Position

Category		Unit	2021	2022	2023	
Salary - Compensation by job position (Base salary)	Executive	Men	KRW Ten thousand	19,313	23,245	22,634
	Executive	Women	KRW Ten thousand	12,000	0	0
	Management (deputy general manager and above, excluding executives)	Men	KRW Ten thousand	8,566	9,086	9,442
	Management (deputy general manager and above, excluding executives)	Women	KRW Ten thousand	8,349	8,974	9,264
	Middle Management (managers, assistant managers)	Men	KRW Ten thousand	6,535	6,924	7,180
	Middle Management (managers, assistant managers)	Women	KRW Ten thousand	6,317	6,696	6,949
	Non-management (staff and below)	Men	KRW Ten thousand	4,617	4,986	5,182
	Non-management (staff and below)	Women	KRW Ten thousand	4,589	4,771	5,033
	Executive	Men	KRW Ten thousand	21,460	31,229	25,284
	Executive	Women	KRW Ten thousand	12,728	0	0
Wages - Compensation by position (base salary + merit pay)	Management (deputy general manager and above, excluding executives)	Men	KRW Ten thousand	9,175	10,093	10,341
	Management (deputy general manager and above, excluding executives)	Women	KRW Ten thousand	8,944	10,021	10,117
	Middle Management (managers, assistant managers)	Men	KRW Ten thousand	6,981	7,618	7,847
	Middle Management (managers, assistant managers)	Women	KRW Ten thousand	6,737	7,341	7,570
	Non-management (staff and below)	Men	KRW Ten thousand	4,928	5,394	5,532
	Non-management (staff and below)	Women	KRW Ten thousand	4,904	5,161	5,409

Social

Customer Satisfaction

Customer Satisfaction¹⁾

Category	Unit	2021	2022	2023
Quality of service satisfaction survey	점	98.7	99.1	98.6

1) Corrected 2022 data values due to change in data calculation methodology (decimal rounding)

Customer Communications

Category	Unit	2021	2022	2023
Number of customer complaints received	Cases	20	25	28
Number of customer complaints resolved	Cases	10	13	20
Customer complaint resolution rate	%	50	52	71.4

Labor-Management Shared growth

Labor-Management Communications

Category	Unit	2021	2022	2023
Number of employee grievances received	Cases	170	27	33
Number of employee grievances resolved	Cases	170	27	33
Employee grievance resolution rate	%	100	100	100

Shared Growth Partnership

Suppliers

Category	Unit	2021	2022	2023
Total number of suppliers	Companies	1,247	1,326	1,393
Total purchases from suppliers	KRW 100 million	14,206	13,681	17,684

Supplier Monitoring Assessment

Category	Unit	2021	2022	2023
Comprehensive assessment of suppliers	Number of suppliers with excellent ratings Companies	21	33	23

Supplier Support

Category	Unit	2021	2022	2023	
Financial Support (Shared Growth Fund)	Funding totals	KRW million	31,000	31,000	31,000
	Amount raised by financial institutions	KRW million	17,500	17,500	17,500
	Amount raised by Hanwha Systems	KRW million	13,500	13,500	13,500
	Amount executed	KRW million	22,737	22,070	22,755
Early Payment of Transaction Amounts During Holidays	Amount executed	KRW million	21,500	10,247	26,430
Quality requirements training	People trained	Persons	195	180	131
	Eligible companies	Companies	54	79	63
Defense Drawing (AutoCAD) Expert Course	People trained	Persons	142	187	0
	Eligible companies	Companies	41	34	0
Quality Assurance Certification (DSQR) Training	People trained	Persons	13	15	28
	Eligible companies	Companies	6	10	15
Shared growth Academy (business skills, statutory mandatory training)	People trained	Persons	811	2,284	2,684
	Eligible companies	Companies	94	50	52

Social

Social Contribution

Social Contribution Activities

Category	Unit	2021	2022	2023	
Contributions to social welfare by entity	Subtotal	KRW million	730	756	844
	Company contributions	KRW million	300	300	455
	Employee contributions	KRW million	430	456	389
Contributions to social welfare by donation type	Subtotal	KRW million	443	1,160	2,485
	Cash	KRW million	75	812	2,209
	Business expenses	KRW million	257	134	203
	In-kind	KRW million	111	214	73
Social contribution activities	Number of programs	Number	63	74	51
	Total participants	Persons	1,166	1,797	1,040
	Total beneficiaries	Persons	5,853	16,652	12,780
Social contribution performance	Total volunteer hours	Hrs.	2,798	4,313	2,496
	Volunteer hours per person	Hrs./Person	2.4	2.4	2.4
	Volunteer participation	%	37	49	25
Social Contribution Steering Committee	Cycle	Branching	Branching	Branching	
Regular community discussion channels	Cycle	Quarterly/ Half-Year	Quarterly/ Half-Year	Quarterly/ Half-Year	

Social Contribution Funds

Category	Unit	2021	2022	2023
Total donations amount	KRW 100 million	4.4	11.6	28.4
Sponsorship amount	KRW 100 million	0.8	8.1	21.6
Operating expenses	KRW 100 million	2.6	1.3	6.1
Material support amount	KRW 100 million	1.1	2.1	0.7

Quality Management

Product Safety

Category	Unit	2021	2022	2023
Number of detected counterfeit parts	Parts	0	0	0
Avoidance rate of counterfeit parts detected	%	100	100	100
Number of recalls	Cases	7	11	9
Total amount recalled	Units	2,050	1,890	1,521
Number of cases receiving Airworthiness Directive (AD) for improvement	Cases	0	0	0
Total units affected by Airworthiness Directive (AD)	Cases	0	0	0

Governance

Board of Directors

Board Operations

Category		Unit	2021	2022	2023
Board composition	Inside directors	Persons	3	4	1
	Other non-Executive Directors	Persons	0	0	1
	Outside Directors	Persons	4	5	3
	Percentage of outside directors	%	57.1	55.6	60.0
	Percentage of women directors	%	14.3	11.1	20.0
Number of board meetings held		Meetings	14	11	12
Board attendance	Average attendance rate	%	100	100	100
	Attendance rate of outside directors	%	100	100	100
	Attendance rate of inside directors	%	100	100	97.2
Board agendas		Items	38	43	32
Number of agenda items with a dissenting vote by an outside director		Items	1	0	0

Board Remuneration Payments

Category		Unit	2021	2022	2023
CEO compensation	Total CEO remuneration	KRW million	515	633	789 ¹⁾
Registered director (excluding outside directors and audit committee members)	Number of individuals	Persons	3	3	2
	Total remuneration amount	KRW million	1,277	1,738	1,165
	Average remuneration per person	KRW million	426	579	583
Outside directors (Except for audit committee members)	Number of individuals	Persons	1	2	0
	Total remuneration amount	KRW million	87	149	21
	Average remuneration per person	KRW million	87	74	0
Audit committee members	Number of individuals	Persons	3	3	3
	Total remuneration amount	KRW million	251	252	276
	Average remuneration per person	KRW million	84	84	92

1) Includes restricted stock awards (139,586 shares), the final amount of which will be determined by the stock price at the time of payment

Board Committees

Category		Unit	2021	2022	2023
Audit committee	Percentage of outside directors	%	100	100	100
	Number of meetings	Meetings	8	7	8
	Attendance rate	%	100	100	100
Internal transactions committee	Percentage of outside directors	%	100	100	100
	Number of meetings	Meetings	4	5	4
	Attendance rate	%	100	100	100
Outside director recommendation committee	Percentage of outside directors	%	60	100	60
	Number of meetings	Meetings	2	2	2
	Attendance rate	%	100	100	100
Compensation committee	Percentage of outside directors	%	100	100	100
	Number of meetings	Meetings	2	1	2
	Attendance rate	%	100	100	100
ESG committee	Percentage of outside directors	%	67	100	100
	Number of meetings	Meetings	3	4	4
	Attendance rate	%	100	100	100

Governance

Ethics and Compliance

Internal Ethical Management Inspections

Category	Unit	2021	2022	2023
Number of internal ethics and compliance inspections	Cases	16	14	6
Ethics violation	Cases	0	0	0
Litigation due to unethical behavior	Cases	0	0	0

Compliance Violations

Category	Unit	2021	2022	2023	
Compliance-related legal actions	Fines imposed	KRW million	0	0	0
	Cases filed	Cases	1	2	3
	Completed cases	Cases	1	2	5
	Number of non-monetary sanctions	Cases	0	0	0
Fair trade violations	Fines imposed	KRW million	0	0	0
	Legal action for unfair trade practices such as anti-competitive behavior, monopolization, etc.	Cases	1	0	0

Ethics and Compliance Training¹⁾

Category	Unit	2021	2022	2023	
Ethics and compliance training	Number of programs	Programs	4	5	3
	Number of trainees	Persons	8,153	8,195	4,481

1) From 2023, duplicate personnel are excluded from the count

Information Security

Information Security Investments¹⁾

Category	Unit	2021	2022
Investment in Information Technology	KRW million	55,089	60,514
Information security investments	KRW million	7,486	6,471
Information Security Investment Ratio	%	13.6	10.7
Number of information security personnel	Persons	68	58

1) For 2023, to be disclosed after June 2024

Information Security Training

Category	Unit	2021	2022	2023
Information security training hours per person	Hrs.	1	1	1
Number of employees participating in training	Persons	3,732	4,175	4,759
Training hours	Hrs.	3,732	4,175	4,759

Governance

Information Security

Information Security Violations¹⁾

Category	Unit	2021	2022	2023	
Information security management	Number of information security breaches/incidents involving confidential information	Case	0	0	0
	Number of data leak incidents	Case	-	-	0
	Number of confirmed personally identifiable information (PII) data leaks	Case	-	-	0
	Number of customers impacted by data leaks	Person	0	0	0
Data privacy and freedom of expression	Total monetary losses, such as fines or penalties paid as a result of information security breaches or cybersecurity incidents	KRW million	0	0	0
	Number of requests from government and law enforcement agencies for user data and information	Case	-	-	0
	Number of users who have been the subject of user data and information requests from government and law enforcement agencies	Person	-	-	0
	Percentage of requests from government and law enforcement agencies for user data and information that resulted in disclosure	%	-	-	0
	Number of times customer information was used for secondary purposes	Case	-	-	0
Lost customer information complaints	Externally received and organization-verified complaints of customer privacy violations and loss of customer information	Case	-	-	0
	Complaints from regulators about privacy breaches and loss of customer information	Case	-	-	0









1) For items other than monetary losses, such as the number of information security breaches/incidents involving confidential information, the number of customers affected by data breaches, and the total amount of fines or penalties paid as a result of information security breaches or cybersecurity incidents, starting in 2023











Appendix

UN SDGs	127	Affiliated Organizations Status	137
GRI Standards	129	Third-Party Verification Statement	138
SASB Index	134	GHG Emissions Verification Statement	139
TCFD Index	136		

UN SDGs

UN SDGs goals	Description	Activity in 2023
 <p>Goal1 End poverty in all its forms everywhere</p>	<p>1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions</p>	<ul style="list-style-type: none"> • Operation of social contribution fund • Provision of goods to vulnerable groups (kimchi, etc.)
	<p>1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters</p>	<ul style="list-style-type: none"> • Provision of Relief Funds for Flood Victims
 <p>Goal2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture</p>	<p>2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons</p>	<ul style="list-style-type: none"> • Provision of goods to vulnerable groups (kimchi, etc.)
	<p>3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases</p>	<ul style="list-style-type: none"> • Operation of health check-up and medical expense support programs for a healthy body
	<p>3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being</p>	<ul style="list-style-type: none"> • Mental health programs for employees and their families to support healthy living
 <p>Goal3 Ensure healthy lives and promote well-being for all at all ages</p>	<p>3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination</p>	<ul style="list-style-type: none"> • Minimize negative impacts from air pollution, waste, and more • Manage and inspect chemicals
	<p>4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship</p>	<ul style="list-style-type: none"> • Career mentoring with soldiers • Donation of books for soldiers
	<p>4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations</p>	<ul style="list-style-type: none"> • Developing 'WeCanVerse' for inclusive education • Provide IT education opportunities for low-income children (DREAM)
	<p>4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development</p>	<ul style="list-style-type: none"> • Provide regular ethics management training, including sexual harassment prevention, disability discrimination prevention, etc.
 <p>Goal4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</p>	<p>5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate</p>	<ul style="list-style-type: none"> • Leave system for maternity protection and childcare support • Paternity leave and long service leave for long-term employees
	<p>5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life</p>	<ul style="list-style-type: none"> • Implementing a parental leave system for children with disabilities and adopting a family support system for diverse types of families • 1 women outside director
 <p>Goal5 Achieve gender equality and empower all women and girls</p>	<p>6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally</p>	<ul style="list-style-type: none"> • Use eco-friendly deicing agents to reduce water pollution
	<p>6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity</p>	<ul style="list-style-type: none"> • Monitor and manage water usage data for greater efficiency
 <p>Goal6 Ensure availability and sustainable management of water and sanitation for all</p>	<p>7.2 By 2030, increase substantially the share of renewable energy in the global energy mix</p>	<ul style="list-style-type: none"> • Installing solar • Investing in renewable energy
	<p>7.3 By 2030, double the global rate of improvement in energy efficiency</p>	<ul style="list-style-type: none"> • Jukjeon Data Center Site Introduces Highly Efficient Equipment to Improve Energy Efficiency
 <p>Goal7 Ensure access to affordable, reliable, sustainable and modern energy for all</p>	<p>8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labor-intensive sectors</p>	<ul style="list-style-type: none"> • Developing technologies to enable eco-friendly urban air mobility • Development of multi-layer communication network/low-orbit satellite communication • Developing technologies to realize hyperconnectivity space internet
	<p>8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services</p>	<ul style="list-style-type: none"> • Increase the amount of the Shared growth Fund and provide training to expand suppliers' capabilities • Regular discussion channels with suppliers (Shared Growth Day, supplier meetings, etc.) • Open Innovation Program
	<p>8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training</p>	<ul style="list-style-type: none"> • Increase the amount of the Shared growth Fund and provide training to expand suppliers' capabilities • Career mentoring with soldiers
 <p>Goal8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p>		

UN SDGs

UN SDGs goals	Description	Activity in 2023
 <p>Goal9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</p>	<p>9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020</p>	<ul style="list-style-type: none"> Development of multi-layer communication network/low-orbit satellite communication
 <p>Goal10 Reduce income inequality within and among countries</p>	<p>10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status</p>	<ul style="list-style-type: none"> Expanding the employment of people from socially vulnerable groups (people with disabilities, patriots, and veterans, etc.) Ensure worker committee activities
	<p>10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard</p>	<ul style="list-style-type: none"> Establishment of Human Rights Management Charter and detailed guidelines for human rights management
 <p>Goal11 Make cities and human settlements inclusive, safe, resilient and sustainable</p>	<p>11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management</p>	<ul style="list-style-type: none"> Replacing adsorption tower activated carbon to reduce air pollution
	<p>12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment</p>	<ul style="list-style-type: none"> Establish a chemical management system and pre-assessment process
	<p>12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse</p>	<ul style="list-style-type: none"> Waste Management Solutions: Introducing Life Cycle Assessment (LCA) for Environmental Labeling Installation of tumbler washers and implementation of the zero disposable items campaign
 <p>Goal12 Ensure sustainable consumption and production patterns</p>	<p>12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle</p>	<ul style="list-style-type: none"> Supporting suppliers' ESG capability through the development of 'ESG ON'
	<p>13.2 Integrate climate change measures into national policies, strategies and planning</p>	<ul style="list-style-type: none"> Establish a mid- to long-term goal of 30% reduction from 2040 BAU
	<p>13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning</p>	<ul style="list-style-type: none"> Developing and implementing a carbon emissions management system (Mangrove solution) Development of ESG management system 'ESG ON'
 <p>Goal13 Take urgent action to combat climate change and its impacts</p>	<p>14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans</p>	<ul style="list-style-type: none"> Improvement of water quality and habitat conservation through EM mudball throwing and nearby stream cleanup activities ECOMAP published to assess the status of endangered species
	<p>14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans</p>	<ul style="list-style-type: none"> Improvement of water quality and habitat conservation through EM mudball throwing and nearby stream cleanup activities ECOMAP published to assess the status of endangered species
 <p>Goal14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development</p>	<p>15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development</p>	<ul style="list-style-type: none"> Improvement of water quality and habitat conservation through EM mudball throwing and nearby stream cleanup activities ECOMAP published to assess the status of endangered species
	<p>15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species</p>	<ul style="list-style-type: none"> Improvement of water quality and habitat conservation through EM mudball throwing and nearby stream cleanup activities ECOMAP published to assess the status of endangered species
	<p>15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species</p>	<ul style="list-style-type: none"> Improvement of water quality and habitat conservation through EM mudball throwing and nearby stream cleanup activities ECOMAP published to assess the status of endangered species
 <p>Goal15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</p>	<p>16.5 Significantly reduce all forms of violence and related death rates everywhere</p>	<ul style="list-style-type: none"> Publication of the Fair Trade Compliance Manual Ethics and compliance periodic inspection
	<p>16.5 Significantly reduce all forms of violence and related death rates everywhere</p>	<ul style="list-style-type: none"> Publication of the Fair Trade Compliance Manual Ethics and compliance periodic inspection
	<p>16.6 End abuse, exploitation, trafficking and all forms of violence against and torture of children</p>	<ul style="list-style-type: none"> Operating a whistleblowing channel Employee Ethics and Compliance Pledge
 <p>Goal16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</p>	<p>16.5 Significantly reduce all forms of violence and related death rates everywhere</p>	<ul style="list-style-type: none"> Publication of the Fair Trade Compliance Manual Ethics and compliance periodic inspection
	<p>16.6 End abuse, exploitation, trafficking and all forms of violence against and torture of children</p>	<ul style="list-style-type: none"> Operating a whistleblowing channel Employee Ethics and Compliance Pledge

GRI Standards

Standard Use Statement	Hanwha Systems has reported in accordance with the GRI Standards for the reporting period (January 1, 2023 to December 31, 2023).
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI industry standards	N/A

Metrics	Metric content	Page	Additional information	
GRI 2 : General Disclosures 2021	2-1	Organizational details	7, 9	
	2-2	Entities included in the organization's sustainability reporting	7	
	2-3	Reporting period, frequency and contact point	2	
	2-4	Restatements of information	-	Changes to some data aggregation criteria due to changes in the calculation methodology
	2-5	External assurance	138-139	
	2-6	Activities, value chain, and other business relationships	8	
	2-7	Employees	117	
	2-8	Workers who are not employees	117	
	2-9	Governance structure and composition	89-92	
	2-10	Nomination and selection of the highest governance body	91	
	2-11	Chair of the highest governance body	89	
	2-12	Role of the highest governance body in overseeing the management of impacts	90	
	2-13	Delegation of responsibility for managing impacts	11-12, 23-29, 98	
	2-14	Role of the highest governance body in sustainability reporting	11-12	
	2-15	Conflicts of interest	91	
	2-16	Communication of critical concerns	99	
	2-17	Collective knowledge of the highest governance body	91-92	
	2-18	Evaluation of the performance of highest governance body	93	
	2-19	Remuneration policy	24, 93	
	2-20	Process to determine remuneration	93	

GRI Standards

Metrics	Metric content	Page	Additional information	
GRI 2 : General Disclosures 2021	2-21	Annual total compensation ratio	93, 123	
	2-22	Statement on sustainable development strategy	10	
	2-23	Policy commitments	36, 86-87	
	2-24	Embedding policy commitments	10	
	2-25	Processes to remediate negative impacts	82-83, 87, 96	
	2-26	Mechanisms for seeking advice and raising concerns	64, 73-74	
	2-27	Compliance with laws and regulations	36-37, 95, 124	
	2-28	Membership associations	137	
	2-29	Approach to stakeholder engagement	20	
	2-30	Collective bargaining agreements	64	
GRI 3 : Material Topics 2021	3-1	Process to determine material topics	21	
	3-2	List of material topics	22	
Addressing climate change				
GRI 3 : Material Topics 2021	3-3	Management of material topic	24-29	
GRI 305 : Emissions 2016	305-1	Direct GHG emissions (Scope 1)	114	No harmful gases emitted
	305-2	Indirect GHG emissions (Scope 2)	114	No harmful gases emitted
	305-3	Other indirect GHG emissions (Scope 3)	Not applicable	
	305-4	GHG Emissions Intensity	114	No harmful gases emitted
	305-5	Reduction of GHG emissions	114	
	305-6	Emissions of ozone-depleting substances (ODS)	115	
	395-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	115	
Sustainable product and technology development				
GRI 3 : Material Topics 2021	3-3	Management of material topic	28, 50	
GRI 302 : Energy 2016	302-5	Reductions in energy requirements of products and services	Not applicable	In the case of the defense sector, product specifications cannot be changed arbitrarily due to its nature, and in the case of the ICT sector, the main scope of business is the provision of IT services, so energy requirements for products and services are not measured.

GRI Standards

Metrics	Metric content	Page	Additional information
Strengthen Site Safety and Health Management			
GRI 3 : Material Topics 2021	3-3 Management of material topic	30-32, 40-48, 64-67	
GRI 403 : Occupational Health and Safety 2016	403-1 Occupational health and safety management system	30, 64	
	403-2 Hazard identification, risk assessment, and incident investigation	31, 40-48	
	403-3 Occupational health services	64-67	
	403-4 Worker participation, consultation, and communication on occupational health and safety	64-67	
	403-5 Worker training on occupational health and safety	65, 116	
	403-6 Promotion of worker health	65, 116	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	64-67	
	403-8 Workers covered by an occupational health and safety management system	116	
	403-9 Work-related injuries	30, 43-47, 116	
	403-10 Work-related illness	30, 43-47, 116	
Supplier Support and Sustainability Management			
GRI 3 : Material Topics 2021	3-3 Management of material topic	32-33, 75-78	
GRI 308 : Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	33, 67	
	308-2 Negative environmental impacts in the supply chain and actions taken	33, 67	
GRI 414 : Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	33, 67	
	414-2 Negative social impacts in the supply chain and actions taken	33, 67	
Product Safety—Enhance quality control and accountability			
GRI 3 : Material Topics 2021	3-3 Management of material topic	68-74	
GRI 416 : Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	71	
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services (disposal results)	122	
Promote diversity and inclusiveness			
GRI 3 : Material Topics 2021	3-3 Management of material topic	59-64, 87, 91	
GRI 405 : Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	87, 91, 117, 120	
	405-2 Ratio of basic salary and remuneration of women to men	120	

GRI Standards

Metrics	Metric content	Page	Additional information
Human resource development and talent management			
GRI 3 : Material Topics 2021	3-3 Management of material topic	34-36, 59-64	
GRI 401 : Employment 2016	401-1 New employee hires and employee turnover	118	
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	62, 119	
	401-3 Parental leave	118	
GRI 401 : Employment 2016	404-1 Average hours of training per year per employee	119	
	404-2 Programs for upgrading employee skills and transition assistance programs	61, 119	
	404-3 Percentage of employees receiving regular performance and career development reviews	120	
Protecting stakeholder human rights			
GRI 3 : Material Topics 2021	3-3 Management of material topic	86-87	
GRI 406 : Non-Discrimination 2016	406-1 Incidents of discrimination and corrective actions taken		Hanwha Systems has stipulated not to discriminate through its Code of Ethics and Employee Guidelines, and receives reports from time to time through reporting channels.
GRI 407 : Freedom of Association and Collective Bargaining	407-1 Measures taken to support rights to exercise freedom of association and collective bargaining for operations and suppliers in which the right to freedom of association and collective bargaining may be at risk		Hanwha Systems guarantees freedom of association and collective bargaining, and has made this clear through its Human Rights Management Charter.
GRI 408 : child labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor		Hanwha Systems has established a Human Rights Management Charter and detailed guidelines on the prohibition of child and young adult labor and complies with relevant labor standards laws.
GRI 409 : forced labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor		Hanwha Systems has prohibited forced labor through its Human Rights Management Charter and detailed guidelines and complies with relevant labor standards laws.
GRI 410 : Security Practices 2016	410-1 Security personnel trained on human rights policies and procedures		Hanwha Systems conducts relevant training for security personnel on human rights policies and procedures.
GRI 411 : Indigenous Peoples' Management 2016	411-1 Incidents of violations involving rights of indigenous peoples	No infringements	

GRI Standards

Metrics	Metric content	Page	Additional information
Conducting strategic CSR activities			
GRI 3 : Material Topics 2021	3-3 Management of material topic	79-85	
GRI 413 : Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	79-85	
	413-2 Operations with significant actual and potential negative impacts on local communities	Not Applicable Site	
Ensure sound governance			
GRI 3 : Material Topics 2021	3-3 ement of material topic	89-94	
Compliance			
GRI 3 : Material Topics 2021	3-3 Management of material topic	36-37, 95-97	
GRI 205 : Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	37, 95	
	205-2 Communication and training on anti-corruption policies and procedures	97	
	205-3 Confirmed incidents of corruption and actions taken	124	
GRI 206 : Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	124	
Enhance customer privacy and cybersecurity			
GRI 3 : Material Topics 2021	3-3 Management of material topic	103-110	
GRI 418 : Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	125	

SASB Index

Industries: Aerospace & Defense

Topics	Code	Accounting metrics	Reference pages and answers
Energy Management	RT-AE-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	114
Hazardous Waste Management	RT-AE-150a.1	Amount of hazardous waste generated, percentage recycled	115
	RT-AE-150a.2	Number and aggregate quantity of reportable spills, quantity recovered	No incidents of waste-related spills
Data Security	RT-AE-230a.1	(1) number of breaches, (2) percentage involving confidential information	125
	RT-AE-230a.2	Description of approach to identifying and addressing data security risks in (1) company operations and (2) products	103-110
Product Safety	RT-AE-250a.1	Number of recalls, total amount recalled	122
	RT-AE-250a.2	Number of counterfeit parts detected, avoidance rate	122
	RT-AE-250a.3	Number of airworthiness improvement orders received, total units affected	122
	RT-AE-250a.4	Total amount of monetary losses as a result of legal proceedings associated with product safety	No violations
Fuel Economy & Emissions in Use-phase	RT-AE-410a.1	Revenue from alternative energy-related products	50
	RT-AE-410a.2	Description of approach and discussion of strategy to address fuel economy and GHG emissions of products	29
Materials Sourcing	RT-AE-440a.1	Description of the management of risks associated with the use of critical materials	33-34
Business Ethics	RT-AE-510a.1	Total amount of monetary losses as a result of legal proceedings associated with incidents of corruption, bribery, and/or illicit international trade	No violations
	RT-AE-510a.2	Revenue from countries ranked in the "E" or "F" Band of Transparency International's Government Defense Anti-Corruption Index	Confidentiality Constraints
	RT-AE-510a.3	Discussion of processes to manage business ethics risks throughout the value chain	36-37, 95-97
Activities Metrics	RT-AE-000.A	Production by reporting segment	Confidentiality Constraints
	RT-AE-000.B	Number of employees	117

SASB Index

Industries : Software & IT Service

Topics	Code	Accounting metrics	Reference pages and answers
Energy Management	TC-SI-130a.1	(1) total energy consumed, (2) percentage grid electricity, (3) percentage renewable	114
	TC-SI-130a.2	(1) total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	52, 114
	TC-SI-130a.3	Discussion of the integration of environmental considerations into strategic planning for data center needs	54
Customer Privacy	TC-SI-220a.1	Description of policies and practices relating to behavioral advertising and user privacy	105-106
	TC-SI-220a.2	Number of users whose information is used for secondary purposes	125
	TC-SI-220a.3	Total amount of monetary losses as a result of legal proceedings associated with user privacy	125
	TC-SI-220a.4	(1) Number of law enforcement requests for user information, (2) number of users whose information was requested, (3) percentage resulting in disclosure	125
	TC-SI-220a.5	List of countries where core products or services are subject to government-required monitoring, blocking, content filtering, or censoring	N/A
Data Security	TC-SI-230a.1	(1) Number of data breaches, (2) percentage involving personally identifiable information (PII), (3) number of users affected	125
	TC-SI-230a.2	Description of approach to identifying and addressing data security risks, including use of third-party cybersecurity standards	103-110
Employee Engagement, Diversity & Inclusion	TC-SI-330a.1	Percentage of employees that are (1) foreign nationals and (2) located offshore	Foreign employees: 9 Overseas Business Sites: Defense sector 14 persons, ICT sector 3 persons.
	TC-SI-330a.2	Employee engagement as a percentage	63
	TC-SI-330a.3	Percentage of gender and racial/ethnic group representation for (1) management, (2) technical staff, and (3) all other employees	117
Competitive Behavior	TC-SI-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations	124
Systemic Risk Management	TC-SI-550a.1	(1) Number of (1) performance issues and (2) service disruptions: (3) total customer downtime	72
	TC-SI-550a.2	Description of business continuity risks related to disruptions of operations	66

TCFD Index

Category	TCFD Recommendations	Reference pages
Governance	a) Describe the board’s oversight of climate-related risks and opportunities.	24–25
	b) Describe management’s role in assessing and managing climate-related risks and opportunities.	24–25
Strategy	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	25–28
	b) Describe the impact of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning.	26, 28
	c) Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2° C or lower scenario.	25–28
Risk Management	a) Describe the organization’s processes for identifying and assessing climate-related risks.	28
	b) Describe the organization’s processes for managing climate-related risks.	28
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization’s overall risk management.	28, 101
Metrics and Targets	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	27
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	25
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	29

Affiliated Organizations Status

Construction Credit Union	Employee Benefits Administration	Mechanical and Construction Credit Union	Green Business Council
Korean Nursing Association	Korea Construction Association	Korea Association of Machinery and Equipment Construction	Korea Industrial Safety Association
Korea Professional Construction Association	Metaverse Alliances	Defense Compromise Response Council	Firemen's Mutual Aid Society
Fire Safety Council (Gumi)	Safety Management Council (Gumi/Gimcheon)	Health and Safety Executive Council (Western Europe)	Electricians' Mutual Aid Society
Professional Construction Credit Union	Telecommunications Credit Union	Occupational Health Association	Korea CISO Council
Korean Association of Construction Engineers	Korea Fair Competition Association	Korea Data Center Association	Korea Trade Association
Korea Industrial Security Agency	Korea Productivity Center (KPC)	Korea Fire Protection Association	Korea Fire Safety Agency
Korea Software Industry Association	Korea Smart Grid Association	Korean Engineering Association	Association of Korean Electrical Contractors
Association of Electrical Engineers	Korea Information Industry Association	Korea Telecommunications Industry Association	Korea Intelligent Transportation Systems Association
Korean Society for Quality Management (KSQM)	Korea Aerospace Youth Corps	Overseas Construction Association	Council of Environmental Engineers (Daegu-Gyeongbuk)

※ List only associations and organizations related to the defense/ICT industry, quality, security, Environment and safety, health, and environment, and community

Third-Party Assurance Statement

To Management and Stakeholders of Hanwha Systems

Daishin Economic Research Institute(hereinafter "DERI") has been requested by **Hanwha Systems** to perform an independent assurance on the 'Sustainability Report 2024' (hereinafter "the Report") for **Hanwha Systems**.

Assurance Level and Details

Assurance Level

This assurance statement is based on AA1000 AS v3, an internationally recognized standard on sustainability assurance. The assurance conducted was at a Moderate Level in accordance with the AA1000AS standards, performing verification by securing and compiling evidence from internal sources or the company concerned. DERI performed a Type 2, Moderate Level of assurance using AA1000 AP(2018) with the adherence to the 4 Principles of Inclusivity, Materiality, Responsiveness, Impact and also verified fidelity and quality of the disclosure information and performances related to sustainability.

Assurance Details

DERI verified whether the Report has been prepared in accordance with the 'Core Option' of GRI Standards corresponding to the identified level and examined the specific indicators derived from the double materiality assessment. Furthermore, the verification process included checking compliance with recommended guidelines for TCFD and SASB.

- Examination on application of reporting principles within GRI Standards
 - Requirements on GRI Standards Core Option
- Universal Standards
- Topic-Specific Standards

– GRI 201: Economic Performance	– GRI 404: Training and Education
– GRI 203: Indirect Economic Impacts	– GRI 405: Diversity and Equal Opportunity
– GRI 205: Anti-corruption	– GRI 411: Rights of Indigenous Peoples
– GRI 305: Emissions	– GRI 414: Supplier Social Assessment
– GRI 308: Supplier Environmental Assessment	– GRI 416: Customer Health and Safety
– GRI 403: Occupational Health and Safety	– GRI 418: Customer Privacy
- TCFD Recommendations
- SASB Sustainability Disclosure Topics & Accounting Metrics

Assurance Scope and Limitations

Assurance Scope

- Data and information included in the Report regarding sustainability management activities from January 1st to December 31st 2023 (with some part of the quantitative data to April 2024)
- Claims, commitments, plans, material issues included in the Report
- Correspondence between data and information included in the Report and those publicly available
- Validation of management system and process

Limitations

- Interview individuals in charge of preparing and collecting the performance related to sustainability and review of the data included in the Report
- Review based on publicly available data during the corresponding period

Assurance Methodology

The assurance was conducted through the following procedure

- Review of materiality test process and appropriateness of material issue
- Review of appropriateness of the evidence provided to meet the index requirement through on-site due diligence
- Review of creation, collection, reporting process of data used for key performance index qualification evaluation

Responsibility and Independence

Hanwha Systems (hereinafter "the Company") is responsible for every information and claims contained in the Report regarding establishment of the Company's sustainability management goals, performance management, and etc. DERI is not involved in any other business operations aimed at making profit with the exception of providing the third-party assurance service as an independent assurance provider.

Third-Party Assurance Statement

Assurance Findings

Inclusivity

Hanwha Systems identifies customers, government, cooperative companies, shareholders, investors, and public bodies, employees, local communities as its stakeholders and has established stakeholder engagement process. DERI has verified the effort to provide stakeholders engagement opportunities across all management processes, collect their opinions and reflect them in business decisions.

Materiality

Hanwha Systems has analyzed the organization's internal business activities and impacts from the perspectives of the economy, environment, and society. They have identified material issues from both business and stakeholder perspectives. Additionally, it has been confirmed that 14 identified material issues are disclosed without any omissions.

Responsiveness

Hanwha Systems operates appropriate communication channel for each type of stakeholder in order to satisfy and meet the interest and demand of major stakeholders.

Impact

Hanwha Systems takes into account the impact of stakeholder and material issues on its business operation and DERI has identified that the firm monitors its influence on the stakeholders.

Reliability of Performance Indicators

DERI verified fidelity of economic, environmental, and social performances based on data sampling, evidential documents, and public database and did not find any intentional errors or inaccurate description.

Qualifications of the Auditor

DERI is a leading korean ESG research and consulting institute and an officially licensed provider of AA1000. The assurance was meticulously conducted in well-documented procedures and methodologies by a team with adequate ESG knowledge and expertise in assurance.

May 2024
Baek, Jaewook
CEO of Daishin Economic Research Institute



GHG Emissions Verification Statement

Hanwha Systems CO.,Ltd.

Place of business in Korea : Yongin R&D Center, IDC Center (Data Center)
 The Korea Management Registrar Inc. (hereinafter "KMR") has conducted the verification on the greenhouse gas (hereinafter "GHG") emission (Scope1,2) of Hanwha Systems CO.,Ltd(hereinafter "the Company") in 2023.

SCOPE

Verification of places of business and emission facilities under the control of the company.

STANDARDS

- ISO 14064-1:2018, ISO 14064-3:2019
- IPCC Guidelines for National Greenhouse Gas Inventories
- Guidelines for Reporting and Certification of Emissions in the Greenhouse Gas Emissions Trading Scheme

PROCEDURE

We conducted a risk analysis approach and on-site verification based on data evaluation, and we identified the appropriateness of the data and factors applied to GHG emission calculations based on objective evidence. The verification team verified the GHG emissions during the reporting period in a reasonable way based on the verification guidelines.

INDEPENDENT

KMR does not have any stake in the verified entity and does not conduct verification with biased opinions/views. We have drawn an independent and objective verification conclusion based on the verification standards, and reviewed the every aspect of the verification we performed throughout the entire verification process through internal review.

LIMITATIONS

The verification team verified the related reports, information and data presented by the audited institution by sampling or enumeration methods. As a result, there are many inherent limitations, and there may be disagreements in the interpretation of appropriateness. Although we have tried to faithfully perform verification that meets the verification standards, we suggest that errors, omissions, and false statements that could not be found may be latent as the limitations to the verification.

OPINION

- GHG verification has been performed to meet the limited assurance level according to the verification standards
- We express that no significant errors were found in the calculation of emissions during the verification process, and that relevant activity data and evidence were appropriately managed and calculated. As a result, we express an "unmodified" opinion.
- Criticality: meets the criterion, which is less than 5%

GHGs Emission	Direct Emission (Scope1)	Indirect Emission (Scope2)	Total (tCO ₂ -eq)
2023	328	15,160	15,489

Energy Consumption	Fuel	Electricity	Total (TJ)
2023	6	316	323

RESULTS

We confirm through verification that the emissions from major emission facilities have been calculated and reported without omission.

※ The abovementioned company is responsible for preparing verification data in accordance with the "Guidelines for Reporting and Certification of Emissions in the Greenhouse Gas Emissions Trading System (Ministry of Environment Notice No. 2021-278)", and KMR's responsibility is limited to the party in the verification contract according to the agreed contract terms. and is not responsible for other decisions, including investment decisions based on this verification statement.

※ The abovementioned company must comply with the use of the certification and logo marks under the contract entered into with KMR.

April 19, 2024
 Authorized By CEO **Eun Ju Hwang**



E J Hwang

