

Hanwha Vision's Sustainability Report 2023

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By providing world-leading comprehensive security solutions, Hanwha Vision strives to ensure the safety of our society.

Hanwha Vision conducts various businesses based on our world-class image technology, including video security, access control, and intrusion detection. We are responsible for the safety and well-being of our society, from crime prevention in urban areas to military-protected areas. We aim to provide safety and security by expanding the supply of premium security products equipped with high-definition, high-performance, and high reliability. Our ultimate goal in the future is to become a global security specialist with one-stop solutions.

INTRODUCTION

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ABOUT THIS REPORT

Report Overview

The 2023 **Hanwha Vision** Sustainability Report transparently describes the economic, social, and environmental values and performance created through our business activities. In order to communicate transparently with stakeholders, we conducted materiality assessments and interviews with stakeholders during the process of publishing this report to select important issues. We strived our best to include the achievements from our initiative for the sustainable management of **Hanwha Vision** in 2022.

Reporting Period

This report contains economic, social, and environmental performance and activities from January 1, 2022, to December 31, 2022, and partially includes information from achievements in the first half of 2023. It also contains data from the previous three years (2020, 2021, and 2022) to show time-series trends in the case of quantitative performance.

Reporting Scope

This report covers **Hanwha Vision**'s headquarters and overseas supply chains. Coverages outside of this scope are indicated separately in the notes.

Reporting Criteria

This report is based on Global Reporting Initiative (GRI) Standards 2021, the global guidelines for sustainability reporting. It complies with the disclosure recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and reflects both the Sustainability Accounting Standards Board (SASB) and UN Sustainable Development Goals (SDGs) indicators. The financial performance in the report is based on K-IFRS (Korean version of International Financial Reporting Standards).

Report Verification

This report has been verified by an external, independent, third-party verification agency to ensure the reliability of the report. The verification process of the report was conducted in accordance with the international verification standard, ISAE 3000. Detailed verification opinions are included in the Appendix.

Additional Information

This report can be viewed or downloaded on the **Hanwha Vision** website in Korean and English. For questions about this report, please contact us below.

Department in charge

Business Planning Team, Strategic Planning Office

Website

www.hanwhavision.com

Address

6, Pangyo-ro 319beon-gil (Sampyeong-dong),
Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of
Korea

Contact

+82-070-7147-8880



CEO MESSAGE



Dear stakeholders,

This is Ahn, Soonhong, CEO of **Hanwha Vision**.

We would like to express our sincere gratitude to all of our stakeholders for their continued interest and support in helping **Hanwha Vision** focus on the video security business for the past 30 years since we launched our first security camera in 1990. Thanks to you, we were able to accumulate the world's most cutting-edge optical design and manufacturing technology and image processing technology, which has led us to grow into a global vision solution provider.

In this report, we would like to share with you our efforts and achievements in sustainability throughout last year.

The future that Hanwha Vision envisions

Today, the video surveillance industry needs more advanced video monitoring and event information collected through security devices in real-time and it is used to quickly search and analyze stored video when necessary.

The future that **Hanwha Vision** envisions is one in which our technology is used to drive further insights. Through our advanced vision solutions, we collect volumes of data, reveal past patterns, monitor the current situation, and inform future predictions through data analysis via the cloud. By combining video surveillance, AI and the cloud, we deliver more valuable insights our customers need to drive business efficiencies and performance.

Our Vision Technology

With the widespread adoption of AI-powered video analysis technology, information processing and value creation have become crucial elements. In line with this trend, **Hanwha**

Vision plans to provide a platform for collecting, analyzing, and integrating data from various devices and sensors. By utilizing AI cameras, IoT sensors, and other devices to detect events and extract features, we aim to obtain diverse visual information. Through data analysis, we will deliver practical business assistance and valuable insights to our customers.

Our Sustainability Management

Hanwha Vision strives for sustainable management and social responsibility. Through a verification process that excludes harmful substances during the development and design of eco-friendly products, we meet environmental requirements. We have institutionalized the submission of hazardous materials information when purchasing parts. We evaluate environmental management capabilities in partner selection and procurement processes, and have joined European recycling organizations for material simplification and recovery. Additionally, we adhere to the principle of "compliance management," taking a leading role in fulfilling social responsibilities and obligations. We pursue mutual growth with partners through collaborative management, community activities, CCTV support, and other social contributions.

Hanwha Vision will continue to listen to and embrace the voices of all stakeholders. Socially, we will strive to create values of 'safety' and 'security', and in business, we will focus on 'sustainability' and 'efficiency'. We ask for your continued interest and support. Thank you.

Ahn, Soonhong, CEO



COMPANY PROFILE

Hanwha Vision will become your vision partner who realizes a sustainable future and provides new values.

Over the past 30 years, as a Global vision solution provider, we have established ourselves as a global video security specialist based on world-class optical design, manufacturing, and image processing technology.

We have been ensuring safety and security around the world and across society with products and solutions with outstanding performance, high reliability, and industry-leading cybersecurity policies.

Our growth and innovation started with our customers' needs. This began with their desire to improve safety and security, now evolving to answer wider business opportunities and challenges. Ultimately, all our solutions enable our customers to reach their goals.

Our investment in innovation and continually pushing the boundaries of what's possible in video is core to our competitiveness, ensuring our steady success in vision solutions.

Company Information

Company name

On March 1, 2023, Hanwha Vision changed its name from Hanwha Techwin to Hanwha Vision, signaling our commitment to driving innovation in the global vision solution industry. Beyond video security solutions, we are committed to leading the next generation of vision solutions, providing the insights needed to operate our customers' business, and driving global market innovation.



Company status

Company name	Hanwha Vision
CEO	Ahn, Soonhong
Headquarters	6, Pangyo-ro 319beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do Postal code: 13488
Date of establishment	Launched video security project in 1990 (Date of establishment for the spin-off: April 1, 2018)
Number of employees (2022)	2,126 (including overseas employees)
Website	www.hanwhavision.com
Business areas	Manufacture and sale of video security equipment and video storage equipment
Sales (2022)	KRW 1.0023 trillion (consolidated)



OUR HISTORY

1990

- 1997
 - Released the world's highest-performing ultra-low-light security camera
- 1993
 - Developed an auto iris lens for CCTV for the first time in Korea
- 1990
 - Launched a video security business and established a U.S. subsidiary

2000

- 2009
 - Established Tianjin and Shanghai subsidiaries
- 2008
 - Launched the world's first 37x PTZ camera
- 2005
 - Developed an advanced automatic intruder location tracking system
- 2004
 - Developed the Winner 3 Analog ISP chip
- 2001
 - Established a European subsidiary

2010

- 2019
 - Acquired the UK Government's official cyber security certification 'Secure by Default'
 - Launched the world's first 55x IR PTZ camera
- 2018
 - Established a Hanwha Techwin manufacturing subsidiary in Vietnam
- 2017
 - Launched the Wisenet5 SoC and X Camera series
 - Acquired CES, the UK government's cyber security certification
- 2016
 - Established a subsidiary in the Middle East
- 2015
 - Launched Hanwha Techwin
- 2013
 - Launched the Wisenet5 SoC and Camera series
- 2012
 - Launched the world's first 37x IR PTZ camera

2020

- 2023.03
 - Changed name to Hanwha Vision and announced transformation into a vision solutions provider
 - Launched SolidEDGE, the world's first camera with SSD
 - Won the 2023 Govies Government Security Award for security cameras for the 5th consecutive year (TNM-C4960TD)
- 2022
 - Won the Best Thermal Infrared Camera Solution in the 2022 ASTORS Security Awards (TNM-C4960TD)
 - Won the 2022 CyberSecured Award Analytics in the security category (TNM-C4960TD)
 - Won the 2022 Security Today Product of the Year Award in the AI video security camera category (PNM-C12083RVD)
 - Won the 2022 Security Info Watch.com Readers' Choice Award (PNM-C12083RVD)
 - Won the 2022 Govies Government Security Award for security cameras for the 4th consecutive year (XNV-C8083R)
 - Won ADI Global Distribution's Supplier of the Year award for EMEA
 - Opened Hanwha Total Care Center (HTCC)
 - Opened Hanwha Innovation & Technology Experience(HITE) America
- 2021
 - Won the Grand Prize in the Security Awards Korea 2021
 - Launched the New X Series AI cameras (X Core, X Plus)
 - Won the 2021 ASTORS Security Awards in the Best IP Video Security Solution
 - Won the 2021 ASTORS Security Awards in the Best Cyber Security Solution category (Wisenet7)
 - Won the New Product of the Year in the network camera category at the 2021 Security Today (PNV-A6081R)
 - Won ADI's Best Operations Support Award in 2021
 - Won the 2021 Govies Government Security Award for security cameras for the 3rd consecutive year (PNM-8082VT)
 - Won the 2021 Secure Campus Award in the network camera category (PNB-A9001)
- 2020
 - Celebrated the 30th anniversary of Hanwha Techwin's video security business
 - Launched Hanwha Techwin's next-generation chipset, Wisenet7 SoC
 - Obtained the UL CAP (UL Cybersecurity Assurance Program) for Hanwha Techwin's Wisenet7 lineup
 - Opened a Hanwha Techwin customer service center in Vietnam
 - Obtained two TTA network camera certificates for security at a public organization
 - Launched the world's first ultra-high resolution (8K) network camera (TNB-9000)
 - Won the 2021 Govies Government Security Award for security cameras for the 2nd consecutive year (PNM-9085RQZ)
 - Won the 2020 Secure Campus Award in the network camera category (PNM-9085RQZ)

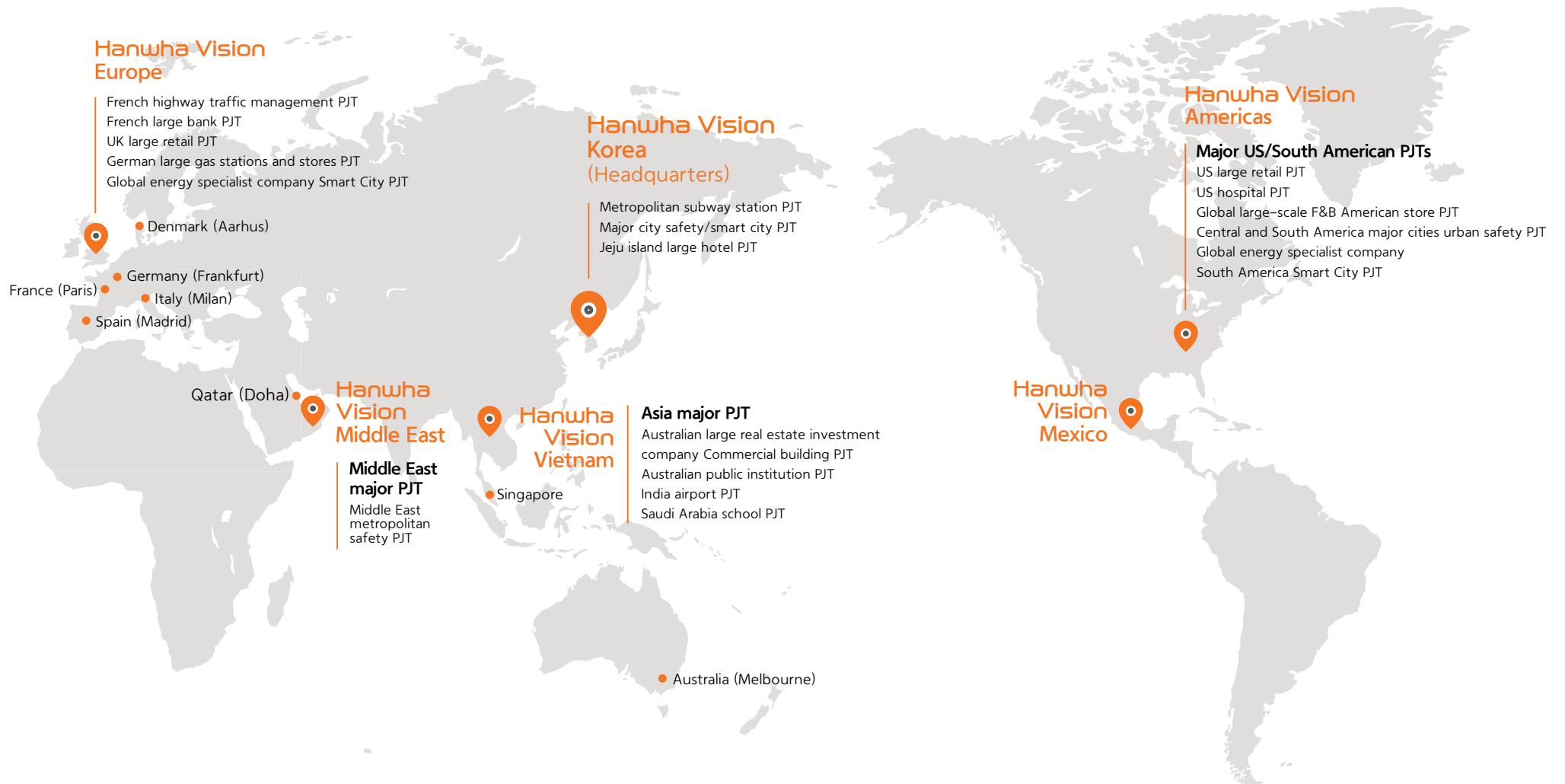


GLOBAL NETWORK

Hanwha Vision has five subsidiaries and 13 offices as of the end of 2022.

Subsidiaries | United States (New Jersey), Mexico (Mexico City), United Kingdom (London), United Arab Emirates (Dubai), Vietnam (Bac Ninh)

Offices | France (Paris), Germany (Frankfurt), Italy (Milan), Spain (Madrid), Denmark (Aarhus), Turkey (Istanbul), Australia (Melbourne), Singapore, Qatar (Doha), South Korea (Busan, Daegu, Daejeon, and Gwangju)





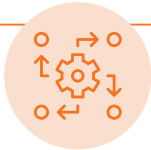
CORE VALUES

Hanwha Spirit

Behind Hanwha's achievement are the spirit of Hanwha, 'Trust and Loyalty.' Established on the spirits, our core values of 'Challenge·Dedication·Integrity' affect the thoughts and behaviors of all employees and unite us. These values form the driving force that has innovated our corporate culture and pushed us closer toward achieving our growth vision.

Our Core Values

Technology and Solutions



A company that resolves individual, corporate, and social problems through advanced vision solutions and adds new value to create new growth

Innovation



A company that finds answers to a better tomorrow through challenges and innovations that do not dwell in the present

Growth

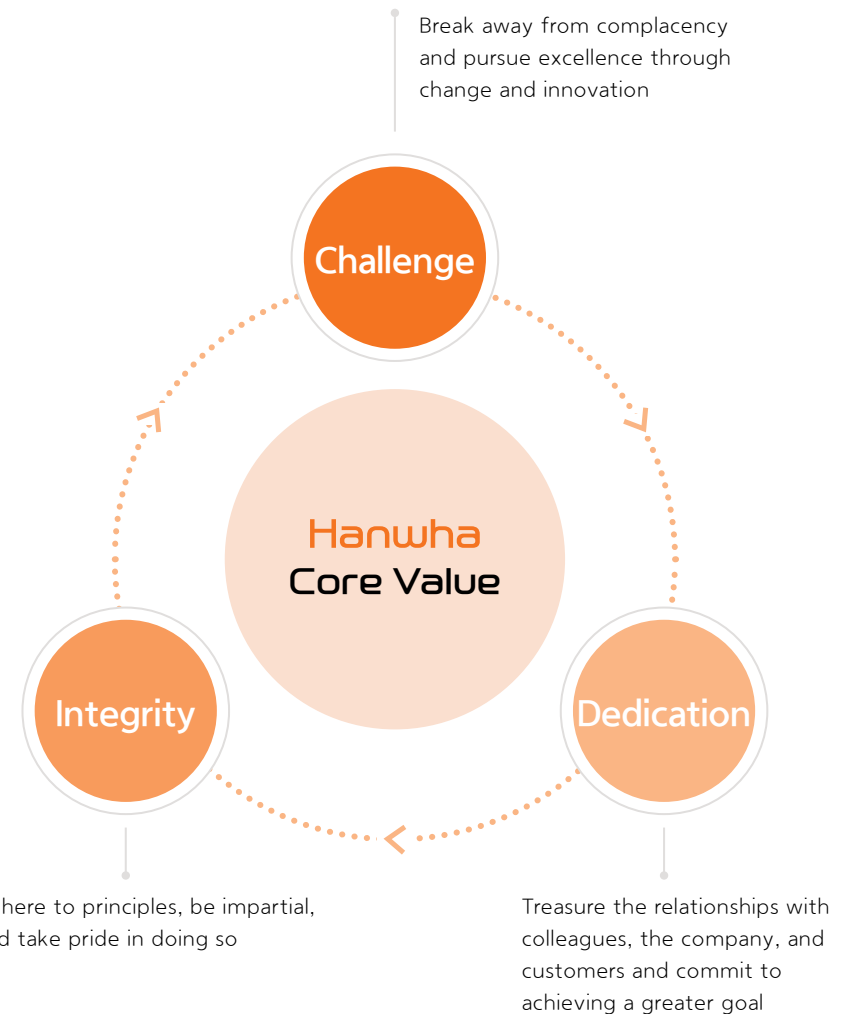


A company that aims for sustainable growth for ourselves and our customers by investing generously in the future and working with trusted partners

Sustainability



A company that contributes to a sustainable environment for individuals and society through our technologies, solutions, and services



Hanwha Vision is responsible for creating a safe and secure world with the world's top-notch optical design and manufacturing technology and image processing technology.

We have established a full lineup of video surveillance products, including security surveillance cameras, storage devices, integrated control software, and intelligent video analysis software. Moreover, to create a safe and secure world from crimes that are becoming increasingly intelligent and advanced, we are building a customized total solution system through the convergence and integration of new technologies such as IoT, deep learning, and access control.

Hanwha Vision's BUSINESS DIVISIONS

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SOLUTIONS

Hanwha Vision's Smart Solutions provides optimized solutions for your business environment. We offer valuable information from business insights related to security, operations, and marketing.

Retail Solutions

Information from cameras and sensors installed across a store provide a wealth of insights for improving in-store experience and performance. We accumulate data, analyze, and visualize it through AI to make it easy to see at-a-glance where to improve store management.

INSIGHTS	Customer count and dwell time analysis	Customer flow and checkout queue management
	Customer type (gender, age) analysis	Analysis of store ranking by number of customers
	Analysis of the number of customers, dwell time, and heatmap by area	Retail conversion rate analysis (linked to POS)

Retail Solutions



Factory Solutions

Our solutions can detect workers not wearing safety gear as well as abnormal workplace situations in real-time by analyzing vision data. We also provide information to boost efficiency through statistical analysis of factory operations.

INSIGHTS	Number of workers and heatmap analysis	24-hour day and night monitoring
	Factory operation status analysis	Automatic tracking of abnormal objects
	Abnormal situation detection	Abnormal access and intrusion monitoring
	Logistics and inventory management: loading bays, fleet management	

Factory Solutions



Smart City Solutions

Quickly see city safety and traffic management insights to improve public security and keep traffic moving. We work with public institutions and government, to provide solutions for rapid responses to incidents in urban areas and improve traffic flow.

INSIGHTS	License plate recognition, map-based traffic management, and counting by vehicle type	Illegal parking, U-turn detection, accident detection
	Speed monitoring, traffic flow analysis, speeding vehicle detection	Detection of emergency-stopped vehicles, and obstructions on the road
	Congestion and speed detection, traffic flow analysis, speeding vehicle detection	On-street parking monitoring

Smart City Solutions





PRODUCTS

Hanwha Vision has an integrated lineup of solutions from A to Z to help customers achieve peak performance in a variety of installations and environments.

Camera Solutions

Our cameras can collect a range of vision data for business insights and proactive security. They come with network and analog options, and include the P, X, Q, and T camera series.

Main Product Lineup in Camera Solutions



Recording & Management Analytics Solution

Data collected through a camera or sensor is recorded on video recorders or a cloud, and this can be monitored in real-time through integrated monitoring software or a viewer as well as recorded video or event confirmation. The vast amount of data is reprocessed through the cloud or analytics software and delivered back to you as meaningful, actionable insights.

- Key Recording Products
- Key Management/Analysis Products



Audio System Solutions

IP audio systems can deliver messages quickly and efficiently and can be utilized as a customized security solution in various environments when combined with a video security system.

Key Audio System Products



Installation Solutions & Peripherals

Solutions for product installation, connection, expansion, etc. By building a system that can actively respond to various installation environments, we save customers' installation time and costs, and increase the value and utility of the product.

Installation solution product lineup





TECHNOLOGY

Hanwha Vision has core competitiveness in vision technology based on optical and image processing technology accumulated over 30 years. As image processing technology through AI has become popular, currently, what matters more is how to process information to create valuable information. In response, Hanwha Vision plans to provide valuable information in various fields through technology conversion and expansion through AI capabilities and a cloud platform. Also, we will continue to enhance our competitiveness in cybersecurity.

Vision Technology

Optical and Video Processing Technology

Exceptional 4K Resolution



- Support for resolutions up to 4K, which shows every detail with crisp, vibrant definition
- Hanwha Vision self-developed the F1.2 varifocal lens, the brightest among 4K lenses, are implemented to the 4K lineup.



Advanced Noise Reduction Technology



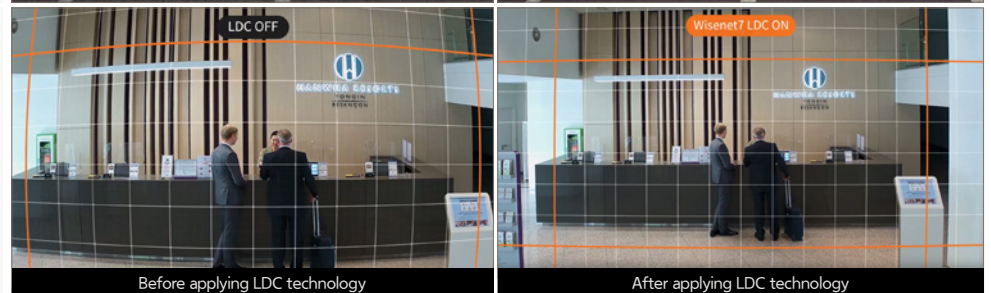
- Wisenet7 camera technology uses different filters for motion and still areas within a camera's field of view.
- This minimizes motion blur and improves edge and color definition of objects, making them easier to identify when viewing live video and during forensic review.



Enhanced Lens Distortion Correction



- Wisenet7's Lens Distortion Correction technology corrects video distortion created through the use of wide angle lenses, delivering video that more closely resembles what is seen through the human eye.



Before applying LDC technology

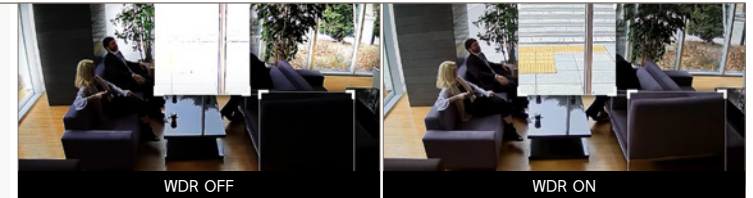
After applying LDC technology

extremeWDR¹⁾

For clear and vivid image against strong backlit



- Hanwha Vision has been working continuously to strengthen its WDR function to provide optimized and vivid images in the strong backlit scenes.
- Hanwha Vision introduced the Wisenet7 implemented with the extreme WDR technology which can produce high resolution images suitable for forensic search application in the environment with strong backlit.



Scene Based Adaptive Tone Mapping



- Hanwha Vision's WDR technology uses SBATM (Scene Based Adaptive Tone Mapping), a technology that analysis and reacts to the surrounding images in order to obtain a natural looking image. This technology can generate natural images without the loss of information.



Local Contrast Enhancement



- While trying to acquire the Wide Dynamic Range, the issue of decreased gradation can happen in some areas. In this case, a video with a good Dynamic Range but poor contrast can be the result. The Wisenet7 chipset supports a Local Contrast Enhancement feature to deal with this issue. As shown in Image 4, you can still achieve a video with Wide Dynamic Range and high contrast on the whole scene, providing a nature image and full visibility.

1) WDR: Wide dynamic range

Low light technology

A lens design that minimizes light loss to deliver maximum amount of light to the sensor



- Hanwha Vision's own accumulated optical design technology made it possible to achieve the world's best F0.94 lens design technology for ultra-low light camera.



High sensitivity sensor that respond well to low light environments



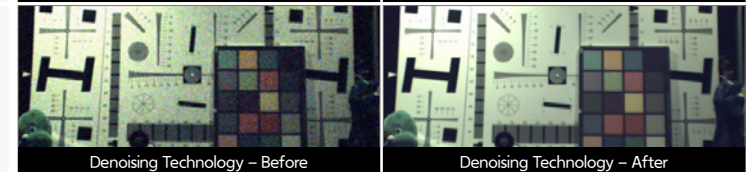
- Hanwha Vision's Wisenet X Series, is featured with 1/1.9" sensor that has outstanding sensitivity and Signal to Noise Ratio (SNR) to provide excellent performance for low light environments.



High complexity image processing technology



- Secured Smart Super Noise Reduction(SSNR)¹⁾ technologies, which refers to high-performance low-light denoising and image quality correction technologies that maintain brightness, color gamut, and sharpness in extremely low-light environments.
- Advanced spatio-temporal noise reduction technology optimized for video surveillance cameras



1) SSNR(Smart Super Noise Reduction)

AI-based Intelligent Technology

Increase event monitoring accuracy by reducing false alarm



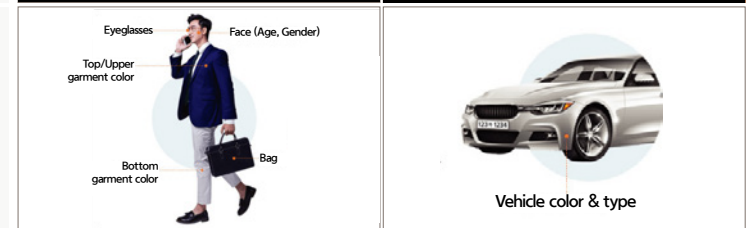
- AI algorithms built into P series AI cameras are able to dramatically help improve operator efficiency.



Classify Target Objects with attributes



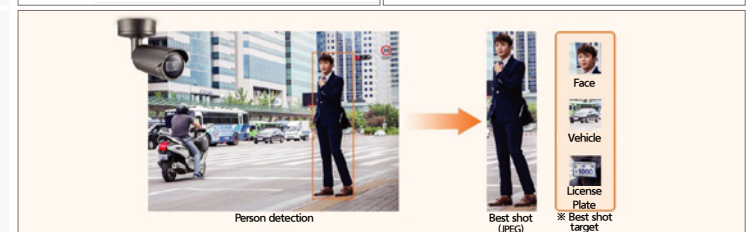
- P series AI cameras differentiates what it sees into broad categories such as 'Person', 'Face', 'Vehicle' and 'license plate'.
- AI algorithms are quickly and accurately able to identify the different attributes of the objects within the camera's field of view.



BestShots for minimizing storage and bandwidth requirements



- Supports BestShot feature, which captures the best image for each object in up to 4K JPEG format
- BestShot can be used as forensic data, which is critical for accurate object analysis in incidents and accidents. It can be set to high resolution at 4K for efficient use of server and network bandwidth.



AI-Powered Image Optimization



- AI-powered WiseNRil and Prefer Shutter Control optimize noise and drag to identify objects (people/vehicles) in low-light conditions.



AI search when used with non-AI cameras



- P series AI NVRs support AI search even when users have only non-AI cameras installed at sites.
- Users can search various objects such as people, vehicles, faces and license plates by using non AI cameras with P series AI NVRs.





TECHNOLOGY

Cybersecurity Technology

Hanwha Vision has been managing internal security for the past 30 years, constantly emphasizing the importance of security to fulfill its social responsibilities as a company that provides security solutions based on vision technology. The company conducts regular security tests led by its in-house security specialized team, S-CERT. And this year 2023, the company was selected as a CNA (CVE® Numbering Authority) organization, working alongside leading tech companies globally to manage the program's vulnerabilities. **Hanwha Vision** has also acquired numerous security certifications from reputable global authorities such as UL CAP, FIPS, and TTA.

7 Concerns and 7 Solutions of Cybersecurity with Hanwha Vision



7 Concerns and 7 Solutions of Cybersecurity with Hanwha Vision



If a video security device is infected with malicious software, can important material be hacked?

When malicious software is embedded in firmware, sensitive information such as passwords, authentication information, and security certificates may be compromised. The Wisenet7 chipset has HTPM¹⁾ a built-in security platform module from **Hanwha Vision**.



Can information be leaked during the communication process between video security products?

Without mutual authentication, hackers can tap into or forge communications. **Hanwha Vision** products prevent large-scale information leaks by authenticating between interconnected devices and introducing a self-signed device certificate system.



Can my video data be read or modified by third parties?

The video data generated by our cameras is encrypted throughout transmission, storage, and backup. Without encryption, a user's personal video data can be leaked or modified by others, regardless of their intentions.



Is it possible for malicious software to operate on my security device through firmware or open platform apps?

If not verified for safety, the firmware may be infected with malicious software. **Hanwha Vision** products check for forgery and tampering when booting and updating firmware, and apply electronic signatures to open platform apps and distribute unique keys for verification.



Are the products that have passed internal security standards or tests safe and verified for cybersecurity?

Hanwha Vision has received official certifications for its security processes through the UL Cybersecurity Assurance Program (UL CAP) from UL, an American safety standard development and certification agency, and TTA security certificates for public institutions in Korea. We are building a secure cybersecurity system by verifying the security level of our products and obtaining certificates from specialized security agencies.



Does the user need to configure the product security setup on their own?

Hanwha Vision incorporates root causes of security vulnerabilities into our product design as a built-in security specification. In other words, when the customer takes the product out of the box, the security system is already set up with full safety. If you want to apply a higher security level from the default settings, you can utilize our network hardening guide to establish a more robust security system.



What should I do when I find a security vulnerability in my product?

Hanwha Vision operates a dedicated cybersecurity team, S-CERT, to minimize customer inconvenience and prevent further damage caused by security vulnerabilities. When S-CERT identifies a security vulnerability in our products, we resolve it as quickly as possible and publish the vulnerability report on the **Hanwha Vision** website.

¹⁾ HTPM, **Hanwha** Trusted Platform Module



SUSTAINABILITY

As a responsible member of society, Hanwha Vision seeks to provide fundamental solutions to solve economic, environmental, and social problems and lead positive change through our business, technology, and social activities. Along with this, based on the philosophy of 'Together, further,' we will create a better future for all by realizing the value of fair management and sharing.

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2022 ESG KEY FIGURES



Waste recycling rate
41.2%

Waste discharge
reduction amount of
31.7Ton

Wastewater discharge
reduction of
1,432Ton

Air pollutant NO_x
reduction rate
72.5%

Number of violations
of environmental laws
0Cases



Employee benefits
expense
14.78billion

Customer complaint
processing rate
100%

Number of industrial
disasters
0cases

Occupational safety
training time
18,200hours

Percentage of female
managers
14%



Number of board
meetings
17times

Number of information
protection violations or
cyber security incidents
0cases

Number of compliance
violations
0cases

Number of fair trade
violations
0cases

Acquisition of
ISO 27001
certification



SUSTAINABILITY HIGHLIGHTS

E Installation of Solar Power Systems

Hanwha Vision continues its efforts to convert renewable energy in an effort to minimize greenhouse gas emissions in the workplace. In 2010, the company installed a 20.5kW solar power system on the roof of Hanwha Aerospace Pangyo R&D Research Institute. The facility saves approximately 17–24% of its annual electricity use through solar panels installed on the roofs of offices, workshops, canteens, and parking lots.

Solar Power System



S Renovation of Pangyo R&D Experience Centre

Hanwha Vision has renovated its R&D Experience Centre to strengthen communication with internal and external stakeholders and customers. The revamped center showcases cutting edge technologies, such as AI and cloud-based surveillance tailored for various fields such as cities, retail, factories, and healthcare, providing an opportunity to confirm Hanwha Vision's expanded portfolio and direction. Particularly, visitors can experience industry-specific solutions optimized through AI analysis technology and explore various business applications. Additionally, the experience zone for the 3D space service platform for apartment residents' convenience, called 'Mopl,' is also available for exploration.

R&D Experience Center



G Selected as a CNA¹⁾ certification body to provide cybersecurity expertise for the international CVE^{®2)} program

Hanwha Vision has proven its commitment and expertise in cybersecurity and has been approved as a CNA numbering authority to assign vulnerability management numbers to the international CVE[®] program. The CVE[®] program, which assigns standardized identifiers and registers vulnerabilities to effectively manage cybersecurity is administered by MITRE, a nonprofit research and development organization under the auspices of CISA³⁾ in the U.S. Department of Homeland Security. Through CNA certification, Hanwha Vision acquired the opportunity to contribute to the public's demand for increased cybersecurity by identifying and publicizing security vulnerabilities for the benefit of users and the broader information technology (IT) and cybersecurity communities.

- 1) CVE (Common Vulnerabilities and Exposures): standard codes for information security vulnerabilities
- 2) CNA (CVE[®] Numbering Authority)
- 3) CISA: Cybersecurity and Infrastructure Security Agency



DOUBLE MATERIALITY ASSESSMENT

Identifying Important Issues

To identify and select issues that have a significant impact on our business activities, Hanwha Vision conducted a double materiality assessment¹⁾ that comprehensively evaluates the social and environmental impact of our business activities (Impact Materiality) and the financial impact of external factors on our financial value (Financial Materiality).

Social and environmental impacts are based on the analysis of domestic and international news articles, best practices and trends in the industry, customer requirements, scoring by global standards, and internal stakeholder surveys, while financial impacts reflect internal stakeholder surveys on sustainability issues and the results of investment and rating agency analysis.

Through this, Hanwha Vision have identified 10 material ESG issues and plan to transparently disclose related activities, achievements, and plans in the Sustainability Report. We will also actively integrate and reflect them in our corporate management activities.

1) The double materiality assessment grew out of discussions about the need to identify sustainability-related issues that are material to stakeholders in detail as ESG management becomes more widespread and advanced. Recently, entities such as the EU and the World Economic Forum(WEF) have issued guidelines for the introduction of double materiality assessment. Hanwha Vision preemptively applied the double materiality assessment as this component may be potentially required in future sustainability reports.

Materiality Assessment Process





DOUBLE MATERIALITY ASSESSMENT

Double Materiality Assessment Results

Hanwha Vision evaluated the environmental, social, and financial impacts of each ESG issue through a double materiality assessment and identified material issues. As a result of the assessment, the top 10 material issues with high financial and socio-environmental impact were selected as Hanwha Vision's "10 Key ESG Issues," and the responses and results are disclosed in detail in this report.

Category	ESG Issue	Impacts		Stakeholders						Page	GRI
		Socio-Environmental	Financial	Employee	Customer	Shareholder/investor	Government	Supplier	Local community		
Governance	Information Security	●	◐	✓	✓			✓		55-56	418-1
	Ethics and Compliance Management	◐	●	✓		✓		✓		51-54	2-23, 27, 205
Environmental	Climate Action	●	◐		✓	✓	✓		✓	27-30	201-2, 305
	Raw Materials	◐	●		✓			✓	✓	30	301-1,2,3
	Capacity building for clean technology and product development	◐	●		✓	✓				24	201-2, 203-2
Social	Quality Control and Product Stewardship	●	●	✓	✓	✓	✓	✓		45-46	416
	Assessment and Management of Suppliers' ESG Risks	◐	◐					✓		42-44	308, 414
	Working Environment and Benefits	◐	●	✓						37-38	401-2
	Occupational Safety and Health	◐	●	✓	✓	✓		✓		32-35	403
	Talent-Centered Management	◐	◐	✓	✓			✓	✓	36-41	404



10 Key ESG Issues	Business relevance and social and environmental impacts	Response
1 Information Security	<p>With the digitization of daily information, the risk of information leakage and cybersecurity threats is on the rise globally. In response, countries are enacting various information security regulations. Hanwha Vision, a video technology-based security solutions company, actively addresses security threats and emphasizes social safety. The company holds the 'UL CAP' cybersecurity safety standard certification from the reputable U.S. company UL. Additionally, it has received the 'Public Institution TTA Security Certification' in Korea, formalizing certification for overall security processes.</p>	<ul style="list-style-type: none"> • Operate an information protection organization and an information security committee • Establish information security policies and regulations • Acquire certification for information security management systems—ISO 27001 • Conduct an information security level assessment • Perform information security checks and training for suppliers
2 Ethics and Compliance Management	<p>As Hanwha Vision's business expands into global markets, we are exposed to a wider range of risks related to ethics and compliance management. Legal and ethical risks may have a significant impact on a company's reputation. Hanwha Vision is committed to managing and preventing corporate fraud and corruption risks by establishing ethics and compliance management policies, implementing various compliance training, and operating compliance consultation and reporting channels.</p>	<ul style="list-style-type: none"> • Establish and enforce ethics and compliance management policies and regulations • Implement compliance training • Assess compliance control effectiveness • Operate compliance consultation and reporting channels
3 Climate Action	<p>The climate change caused by carbon emissions is considered an international issue, and both the government and businesses are making various efforts to address this problem. The government has set the goal of transitioning to renewable energy through the 'Renewable Energy 3020 Implementation Plan,' while companies are focusing on developing strategies to respond to climate change, including greenhouse gas reduction and transitioning to a circular economy. Hanwha Vision, in alignment with government regulations, is increasing the use of renewable energy and effectively managing greenhouse gas emissions throughout the product manufacturing process by quantifying them. Additionally, the company adheres to legal standards regarding resources, air pollutants, hazardous chemicals, and waste to fulfill its responsibility in managing climate change.</p>	<ul style="list-style-type: none"> • Plan to establish the life cycle assessment (LCA) process • Environmental Impact Assessment • Use renewable energy • Acquire certification for environmental management systems –ISO 14001
4 Raw Materials	<p>Indiscriminate raw material use leads to natural capital loss and accelerates climate change. Thus, ensuring transparency in raw materials, reducing supply chain and production risks is crucial for sustainability. Hanwha Vision promotes a green purchasing strategy, prioritizing products with minimal resources and energy impact across all stages of production, consumption, and disposal. We simplify materials for easier recycling and recovery, design for simple degradation and disassembly, and provide environmental transparency through product labels.</p>	<ul style="list-style-type: none"> • Establishment of policy to ban conflict minerals • Establishment of green purchasing policy • Environmental label attached
5 Capacity building for clean technology and product development	<p>Companies are boosting R&D in green technologies to address climate change, and there's a growing preference for eco-friendly products among customers and investors. Hanwha Vision's R&D center focuses on sustainable product development and integrates eco-friendly elements throughout the business model, including production. Recent developments include SolidEDGE cameras, Edge AI, and low-light technology to enhance energy efficiency in our products.</p>	<ul style="list-style-type: none"> • R&D Center Operations • Develops green and clean technologies (energy reduction) – SolidEDGE cameras, Edge AI, low-light technologies



10 Key ESG Issues	Business relevance and social and environmental impacts	Response
<p>6 Quality Control and Product Stewardship</p>	<p>In today's global economy, responding to customer needs swiftly and accurately is crucial for business success given the vast array of product choices. Hanwha Vision's quality management centers on understanding customer needs from their perspective, not just organizational efficiency. We collaborate with stakeholders to develop future-oriented products, striving for the highest quality through assessments, improvement measures, and customer satisfaction surveys.</p>	<ul style="list-style-type: none"> • Quality management conferences • Quality manual based on ISO 9001 quality management system • Internal audit office • Customer satisfaction surveys • Training of service representatives
<p>7 Assessment and Management of Suppliers' ESG Risks</p>	<p>The EU Commission's Draft Supply Chain Due Diligence Directive in February 2022 and the European Parliament's amendment to the Corporate Sustainability Due Diligence Directive in June 2023 have elevated the importance of ESG management in the supply chain. Approximately 63% of large corporations already perform regular ESG assessments of their suppliers, and many others are gearing up to establish sustainability management systems for their suppliers. Hanwha Vision actively adheres to four fair trade guidelines to foster fair and transparent business relationships with suppliers, demonstrating a commitment to supply chain risk management through rigorous and transparent selection and evaluation processes.</p>	<ul style="list-style-type: none"> • Introduction and adoption of the Top Four Fair Trade Guidelines • System for supply chain selection and evaluation processes • Regular evaluation of suppliers <ul style="list-style-type: none"> – Based on quality performance, delivery performance, cost reduction performance, and compliance management items
<p>8 Working Environment and Benefits</p>	<p>Ensuring a suitable work environment and benefits is crucial for enhancing the quality of work life, directly impacting workplace satisfaction. Hanwha Vision is committed to boosting employee satisfaction, a key factor in improving corporate competitiveness. Beyond introducing diverse welfare programs, we are actively fostering a family-friendly corporate culture and creating a pleasant work environment to enhance employee engagement.</p>	<ul style="list-style-type: none"> • Creating a family-friendly company culture <ul style="list-style-type: none"> – Events inviting parents and children • Implementation of programs that support the balance between work and family life • A pleasant workplace <ul style="list-style-type: none"> – Good Place Campaign, Clean Office Day • Operation of various benefits programs
<p>9 Occupational Safety and Health</p>	<p>Safety and health management is an integral part of a company's activities that shall be considered a top priority. Failure to ensure safety and health may lead to adverse medium- and long-term effects, such as loss of stakeholder trust and damage to the company's brand value.</p> <p>Hanwha Vision is committed to establishing a sustainable safety and health management system and building a unique safety and health culture to create a safe working environment.</p>	<ul style="list-style-type: none"> • Operating the Occupational Safety and Health Committee • Establishment and evaluation of annual accident-free achievement plan • Operating monthly on-site "safety inspection days" • Obtained safety and health management system (ISO 45001) certification
<p>10 Talent-Centered Management</p>	<p>Attracting top talent not only enhances organizational competitiveness and productivity but also elevates the company's reputation and brand, attracting investment opportunities. Hanwha Vision is innovatively recruiting talent, breaking away from traditional methods, and systematically managing talent through the establishment of a strategic talent development approach.</p>	<ul style="list-style-type: none"> • Talent development strategy • Employee capacity-building programs • Diversification of talent recruitment programs



Hanwha Vision's APPROACH TO SUSTAINABILITY

For a sustainable tomorrow, **Hanwha Vision** pursues research into ground-breaking technologies that are aligned with the trends and directions of the security industry.

Synergy between technology and energy for a sustainable tomorrow

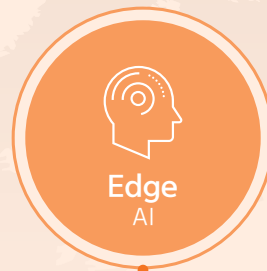


SolidEDGE
camera

Serverless innovations, such as the **SolidEDGE camera**, result in energy savings.

Hanwha Vision's SolidEDGE is the first solid-state drive (SSD)-based camera with a built-in server. The product's key strength is the ability to run the Wisenet WAVE Video Management System (VMS) at the camera, or the "edge," a serverless solution enabling highly efficient operations.

Hanwha Vision said, 'In order to provide a storage solution with stable performance while reducing the number of servers that customers must manage, solid state storage was added to the camera itself, reducing the Total Cost of Ownership(TCO) and electricity consumption for separate server operation. We have created an innovative serverless solution that saves physical energy at management level.



Edge
AI

Let's reduce the energy required to analyze massive amounts of data: **"Edge AI."**

Globally, security cameras generate about 2,500 petabytes of data per day. It takes about 24 days to download a petabyte of data at a maximum speed of 20 Gbps, the maximum for 5G. In other words, storing and analyzing such a large amount of data is a huge energy drain.

Hanwha Vision's Edge AI technology can mitigate the overloading of energy on networks and storage capacity and reduce the resources and time required for data analysis at server level. Adding AI NVR¹⁾ to this, large amounts of video data stored in NVRs can be analyzed and allows users to quickly find what they need through AI-enabled searches.

1) Network Video Recorder (NVR): A digitalized set of cameras, video networks, recorders, and monitors



Low-light
technology

Let's reduce the energy required for clear imaging: **Low-light technology that allows clear imaging in the dark**

If stores made sure close their doors are closed before to running the air conditioning and turned off all lights after closing, they could save nearly KRW 2 trillion a year in electricity bills. While we may turn off the lights to save energy, we cannot stop the security cameras that are responsible for our safety.

Hanwha Vision's low-light technology helps identify people and objects in low-light environments and provides high-quality monitoring footage. With **Hanwha Vision's** low-light technology, customers can avoid wasting power on unnecessary lights while maintaining security.

SUSTAINABILITY MANAGEMENT PHILOSOPHY OF Hanwha Vision

We are working to realize responsible management in the environmental, social, and governance aspects.

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ENVIRONMENT



Hanwha Vision faithfully complies with the obligations of global environmental regulations to create a sustainable future and is making continuous efforts to minimize the impact on the environment wherever our technology and capabilities reach.

Compliance with international environmental standards

Hanwha Vision abides by the European and Chinese RoHS (Restriction of Hazardous Substances Directive) and observes the restriction on substances hazardous to the human body in our product. We have also obtained ISO14001 certification, satisfying international standards for environmental management.

Green purchase

We ensure eco-friendly products through verification in development, gather substance info for component purchases, assess suppliers' environmental efforts, and promote the use of environmentally certified materials in production for customer satisfaction.

Eco-friendly Products

Hanwha Vision attaches environmental labels on products with eco-friendly features so they can be easily identified.





CLIMATE ACTION

Governance

Hanwha Vision fulfills the responsibility and oversight of environmental management across all areas of the company through its board of directors. The Korean Pangyo R&D Center and the Vietnamese subsidiary have designated specialized environmental staff responsible for establishing environmental policies, ensuring regulatory compliance, conducting employee education, and providing ongoing reports to the management. Particularly, the Vietnamese subsidiary is developing processes and regulations required by the ISO 14001 certification, operating the environmental management system through internal audits and third-party verification.

Climate Action Management

Plan to establish the life cycle assessment (LCA) process

Hanwha Vision has its own process to measure greenhouse gas emissions throughout the entire product manufacturing process. We comply with environmental regulations for each major product category and have developed measurement methodologies. We calculate data according to these methods and aim to provide accurate environmental information about our products to customers when necessary.

Environmental Impact Assessment

Hanwha Vision conducts annual environmental impact assessments for its operations, products, and services in line with ISO 14001 certification standards. When new equipment is introduced or changes occur, we reassess their impact on air,

water, soil, waste, and energy usage. We identify "significant environmental aspects" that could have a substantial impact on the environment. Through these assessments, we review the environmental effects throughout the product lifecycle and establish improvement measures via internal communication to minimize adverse impacts.

Energy Efficiency

Hanwha Vision primarily relies on facility and internal power for energy usage. Operating a comprehensive safety center aids in monitoring energy consumption, employing peak power management to reduce equipment load and minimize power usage. Through various initiatives like selling idle equipment, replacing old machinery with LEDs, installing timers, applying insulation films, and other energy-saving activities, they're progressively reducing overall power consumption. Consequently, the Vietnamese subsidiary has achieved a 1% reduction in power usage compared to the previous year as part of its objective.

Energy-saving activities at the Vietnamese subsidiary	Savings
Fan in the cooling tower system is turned off from October to March every year	10,800kwh/month
Main line AHU system turned off 10 minutes before the end of the shift	3,500kwh/month
Installed automatic ON/OFF sensors for locker rooms and restroom lights/fans	2,300kwh/month

Use of Renewable Energy

Hanwha Vision is continuing its efforts to convert existing power sources into renewable energy as a means to reduce greenhouse gases in the workplace. In 2010, a 20.5kW solar power generation system was installed on the roof of the Pangyo R&D Research Institute with Hanwha Aerospace.

The Vietnamese corporation also has solar panels installed on the roofs of offices, workshops, canteen and parking lots, reducing 1,000t CO₂ per year, saving about 17-24% of its annual electricity use.

Solar panels at the Pangyo business site



Solar panels at the Vietnamese subsidiary





CLIMATE ACTION

Energy-saving Activities by Employees

Hanwha Vision encourages employees to actively participate in energy-saving activities by turning off lights during lunch and after work and attaching stickers next to light switches with a message to "Turn off when not in use." In addition, we adjusted the temperature of the office in accordance with the government policy in the summer and launched the "Cool Style" campaign that allows employees to wear short sleeves and shorts to work to reduce their discomfort.

Every year, we participate in the Earth Day event, where all lights in and outside the factory are turned off for 60 minutes.

Shared Commuter Vehicle Support

Hanwha Vision operates shared commuting vehicles (including shuttle buses) as a means of reducing greenhouse gas emissions that would be generated by employees driving their own cars. Considering the commuting routes of our employees, we have established routes and adjustment regulations and are doing our best to operate shared commuter vehicles efficiently in line with demand.

| Wastewater Management

Resource Circulation

Water Resources

Hanwha Vision recognizes the importance of water resources and manages the entire process of water from use to discharge. The amount of wastewater generated is monitored at all times, and the treatment is conducted by a legitimate contractor

selected through a proper process. The Vietnamese subsidiary of Hanwha Vision has established in-house "Water Treatment Operation Guidelines and Standards" to comply with water quality-related laws and regulations and conducts daily water quality monitoring by measuring dissolved oxygen (DO) and hydrogen ion concentration (pH). Concentrations of water pollutants such as COD and SS are measured through a water quality measurement contractor every month to ensure that pollutants are discharged below legal standards. In the water treatment process, probiotics are used to minimize sludge (sediment) generation and to improve existing biochemical treatment processes. This resulted in a reduction of approximately 5 m3 of sludge from wastewater treatment in four months.

| Creating a Water-Saving Culture

Hanwha Vision has implemented water-saving measures such as educating employees on water conservation, reducing water pressure, reducing toilet usage, and reducing water usage for defrosting food in the cafeteria. This resulted in a reduction of approximately 3% from the previous year's water usage.

Waste

| Waste Management

Hanwha Vision categorizes waste at the end of the production process into treatment waste and recycling waste and transfers it over to contractors after internal reporting. Waste disposal companies are pre-screened to ensure that they are legitimate, and priority is given to companies that use environmentally friendly methods.

| Waste Recycling

To reduce the amount of waste generated during production, Hanwha Vision recycles and reuses packaging materials, plastic and wooden pallets. We also work with our suppliers to ensure that packaging specifications use easily recyclable paper materials.

| Simplification of Materials

From the product development stage, Hanwha Vision is simplifying materials to reach certain levels of recycling rates (70%) and recovery rates (80%) in line with EU WEEE¹⁾ standards and designing them to be easily degraded and disassembled. We also design our packaging with easily recyclable paper materials.

1) WEEE: Waste Electrical & Electronic Equipment Directive, 2002/96/EC, European Community Directive on producers' recovery and recycling obligations for waste electrical and electronic products

Reduction of Environmental Pollutants

Air Pollutants

| Air Pollutant Emissions Management

Hanwha Vision's main source of air pollutants comes from seven facilities for surface mount devices (SMD¹⁾). To reduce air pollutants, an exhaust system equipped with an activated carbon filter is used to clean the air generated by the facility before it is discharged into the atmosphere. We also monitor air emissions quarterly, regularly check exhaust systems, and replace activated carbon filters to keep pollutant concentrations below legal limits.

1) SMD(Surface Mount Devices)



CLIMATE ACTION

Hazardous Chemicals

| Principles for hazardous chemical management

Hanwha Vision fulfills our obligation to disclose substance information under Article 33, "Duty to Communicate Information on Substances in Articles." Products such as our cameras and storage devices are finished goods, which are non-intentional emitters and have no registration requirements, and the SVHC content in our products does not exceed 0.1% by weight.

| Enhanced Safety Management of Hazardous Chemicals

Hanwha Vision has appointed a Chemical Accident Response

Command Center and the manager of a specialized chemical systematically supervise chemicals. Every year, we conduct training activities through legally recognized training institutions to improve the professional competence of chemical managers, chemical personnel, chemical users, and chemical transportation and storage. We also provide internal awareness training on chemical safety annually for both existing and new employees. Mock chemical accident response drills are conducted annually as well to train employees on how to respond to and handle emergencies such as leaks, spills, and chemical accidents. We are equipped with protective equipment and materials for chemical accident response at our premises.

| Hazardous chemical management

Hanwha Vision conducts preliminary assessments before introducing products to oversee the environmental impact of chemicals and the safety and health of workers. Users of all chemicals are required to submit pre-purchase review requests to environmental and safety managers, who verify legal requirements to approve product use and guide users on compliance with applicable laws on chemical substances. Users are managing the chemicals in accordance with the compliance guidelines.

Procedures for hazardous chemical management



Green Purchasing

| Green Purchasing Policy

Hanwha Vision aims to fulfill our responsibilities as an eco-friendly company by minimizing our impact on human health and the environment and maintaining a comfortable quality of life and environment by efficiently using finite resources.

Green Purchasing Policy





CLIMATE ACTION

Strategy and Directions

Hanwha Vision is actively implementing various activities to provide customers with more eco-friendly products and develop a competitive edge in global purchasing. In particular, we strive to create market-leading products and services through management that mutually benefits us and our suppliers and transparent purchasing practices.

To practice our corporate social responsibility and meet the environmental demands of the market, we have a verification process during the development and design stages to ensure that our products do not contain harmful substances. We have institutionalized the submission of information on hazardous substances in materials when purchasing components for product manufacturing, and we evaluate the environmental management capabilities of suppliers at the stage of selecting suppliers and procuring supplies.

Furthermore, for auxiliary materials consumed in product manufacturing activities, we encourage the purchase of environmentally certified products. We have simplified the process and joined recycling organizations in each European country to enable recovery. In the future, we plan to operate an improved eco-friendly purchasing process by training the purchasing department and suppliers and gradually stabilizing the process.

Environmental Management Certification and Label

Environmental Management Systems certification

To minimize the environmental impact of the company, Hanwha Vision has introduced an environmental management system since the time of establishing manufacturing plants and incorporated it into our management activities. We have also obtained ISO 14001 certification, an international certification standard on environmental management systems. By installing facilities that power green energy, such as solar power and utilizing them in the manufacturing process, we are able to produce more

ISO 14001 Certification



environmentally friendly products. We are achieving environmentally friendly performance through clean production activities that reduce environmental pollutants generated during process development and operation.

Environmental Label ECO Mark

Hanwha Vision attaches self-declared environmental labels to products with excellent eco-friendly properties to help customers easily recognize the environmental benefits of our products. We inform customers about the environmental information of our products by labeling lead-free products, products with reduced hazardous substances, and products with packaging that meets our internal eco-design standards.

Types of ECO Marks



Pb-Free Product



RoHS Compliant



Eco Information

- Non-use of halogenated flame retardants
- Application of lead-free solder technology
- 20% weight reduction over product A
- Improved the recycling rate by 15%



SOCIAL

Hanwha Vision respects the human rights of its employees, understands the importance of work-life balance, and seeks effective collaboration through win-win cooperation with its partners. Also, by generating additional value for customers and local communities, we are leading positive change.

Flexible organizational culture and systems

Hanwha Vision operates various programs to foster a flexible culture that enables employees to balance work and daily life effectively. Initiatives such as flexible work hours, a sabbatical month, support for paternity leave, and leave for self-development are among the flexible leave systems currently in place.

Mutual growth through win-win cooperation

Hanwha Vision aids SMEs through the Win-Win Cooperation Support Program, utilizing our AI, image processing, and optics technologies to collaboratively manufacture products, enter public procurement markets, and domestically produce previously imported parts and materials.

Safety and trust-based systems

We comply with worker safety standards through ISO 45001 (management systems of occupational health and safety) certification and construct a quality assurance system throughout the entire process of products and services through ISO 9001 (quality management system) to provide our customers with a sense of trust.



Environmental Safety and Health(ESH) Management

ESH Management System

Governance

Hanwha Vision complies with the Serious Accidents Punishment Act, aiming for a 'Risk Zero Company' status. It runs an Industrial Safety and Health Committee and related internal organizations. This setup includes an executive team ensuring management's safety and health, and operational teams managing legal safety tasks at sites. Regular compliance reports are submitted to strengthen employee safety. The Environment and Safety Manager oversees decisions on environmental health, system setup, and accident prevention.

Management Policy

Hanwha Vision has established and operates an environmental safety policy with the goal of achieving zero accidents in the environment, health, and safety to practice top-rated business and improve the health and prosperity of human life. In particular, we are not only making eco-friendly products through environmental management activities but also making improvements in the fields of safety, health, and energy, centered on manufacturing sites, to create a more relaxed and healthier workplace. We comply with the established policies and share with all employees and suppliers, paying close attention to local communities.

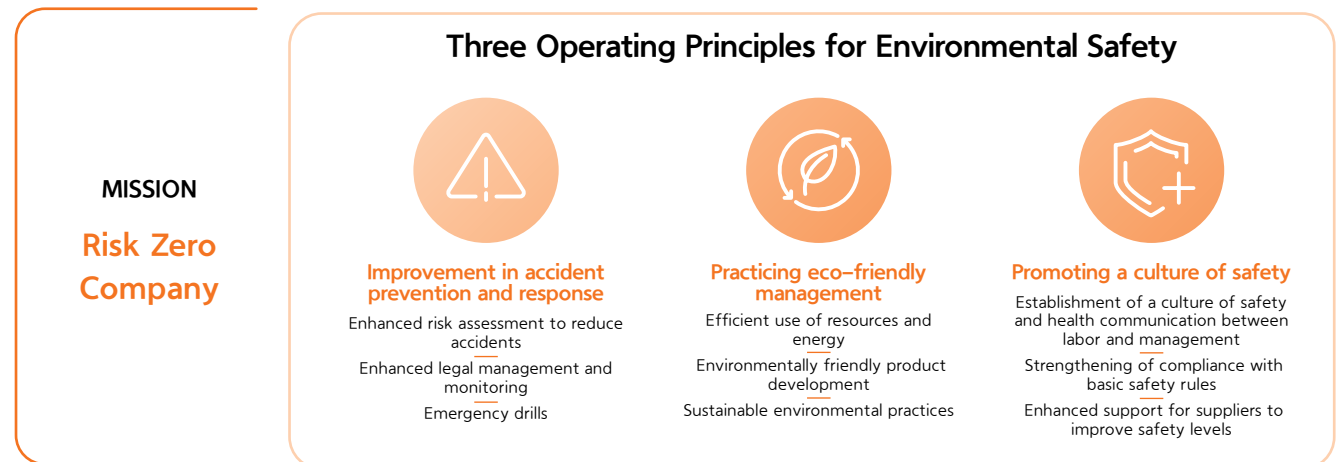
Vision and Strategy

Hanwha Vision has established and managed three core operating principles for environmental safety to achieve a Risk Zero Company status. Firstly, "these principles" strive to prevent environmental accidents and enhance emergency response capabilities. They reinforce risk assessment activities to minimize accidents, continuously monitor regulations, and conduct regular emergency response drills. Secondly, they aim for efficient use of resources and energy. Additionally, they engage in efforts for developing environmentally friendly products and consistent environmental conservation activities. Thirdly, they focus on fostering a culture of safety and health communication between labor and management, providing adherence to safety rules, and supporting the enhancement of safety management levels among collaborating companies.

ESH Organization Chart



Three Operating Principles for Environmental Safety





Environmental Safety and Health(ESH) Management

Evaluation and reporting structure

Hanwha Vision has established and implemented a regular evaluation and reporting process for its safety and health management system. Based on an assessment framework that incorporates legal obligations for safety and health management officers and supervisors in each division, performance is evaluated twice a year. In 2022, we received a rating of 89.8 points. These results are reported to management and used to assess the competency of those evaluated.

Evaluation criteria for supervisor and head of the Vietnamese subsidiary

RATINGS	S	A	B+	B	C
Score	Over 95 points	Over 90 points	Over 80 points	Over 70 points	Less than 70 points

Risk Management

By regularly identifying and managing risks throughout our business, Hanwha Vision is creating a company where employees can work safely. We have established emergency management operating regulations to build a systematic response system to fires, accidents, and natural disasters and are strengthening preliminary inspections and measures. In addition, through regular and frequent risk assessments in collaboration with workers and safety and health experts, we strive to continuously identify and improve risks to enhance safety on site.

Furthermore, we pay attention to preventing the occurrence of major accidents on-site by regularly investigating, confirming, and improving near-misses¹⁾ twice a year.

1) Near-miss accidents: Incidents that may have led to accidents due to worker negligence or defective site equipment but did not result in direct human or material damage

Strengthening the Safety Culture

A Focus on Safety

Hanwha Vision applies the method of sharing knowledge and experience to create an autonomous culture of safety where workers are responsible for their own safety.

In particular, we use our internal bulletin boards to periodically communicate safety-related information and messages, often choosing topics that are closely related to our daily lives. At overseas manufacturing sites, we focus on ensuring that all employees observe safety through various activities such as hazard prediction quizzes, safety slogan campaigns, and safety inspection patrols conducted twice a month.

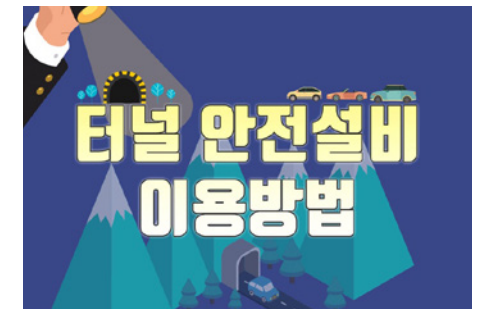
Employee Health Care

Operation of Healthcare Facilities

Hanwha Vision operates various facilities for employee healthcare and emergency response at our business sites. In-house nurses provide personalized health counseling to employees and first-aid.

Maeumnuri Counseling is a facility where employees can receive counseling on various topics, such as anxiety and depression caused by stress. We have psychologists on-site at all times to care of mental health. For office workers, who often complain of musculoskeletal problems due to working in a fixed position for a long period of time, we opened an internal musculoskeletal center that offers customized exercises to relieve pain.

Action Plan for Tunnel Accidents and Fires



Maeumnuri Counseling





Environmental Safety and Health(ESH) Management

| Regular Health Check-Ups

Hanwha Vision conducts various activities to ensure the safety of our employees and promote their health. We carry out health checkups once a year for our executives and employees, and check-ups for occupational diseases every six months for employees exposed to some hazardous work. In addition, during regular health check-ups, we conduct comprehensive checkups that include tumor marker tests and gastroscopy in addition to basic tests such as urine and blood tests.

| Health Check-Up Program

Hanwha Vision diagnoses individual health conditions through a regular internal health checkup program and provides customized health improvement programs for those found to be at risk. Our efforts to promote the health of employees at risk include setting a "step goal for specific time periods, measurable via a mobile app" We also run a program in which in-house nurses and exercise professionals provide dietary management and exercise guidance.

| COVID-19 Response

To prevent the spread of the coronavirus (COVID-19) pandemic in the company and protect the health of our employees, **Hanwha Vision** established a COVID-19 prevention plan and formed a disease prevention steering committee to respond flexibly to the outbreak. In addition to complying with government policies, we took proactive measures such as providing masks, allowing workers with suspected cases to work from home, supporting vaccinations, allowing.

In the case of the Vietnamese subsidiary, the government prohibited workers from traveling to and from work to prevent

the spread of infectious diseases in the region and requested that production be performed in-house. As a result, our employees stayed and worked in-house for a month. **Hanwha Vision** provided individual tents, floor mats, water heaters, showers, washing machines, and more to help staff maintain hygiene

| Safety Inspections and Guidance

Hanwha Vision conducts regular inspections and external diagnostics to identify and improve the working environment and risk factors at our sites. We also hold monthly, worker-led "Safety Inspection Days" to identify problems on site and improve them. At least once a year, a site walkthrough is completed with an external diagnostic organization to identify risk points and ensure **Hanwha Vision's** comprehensive compliance.

In addition, we regularly visit not only **Hanwha Vision's** sites but also major suppliers' sites to examine their safety and health management systems and evaluate them with a separate checklist. We conduct regular activities twice a year to identify improvement measures based on the evaluation results and provide customized guidance and advice to our suppliers, supporting them to build their safety systems as well as prevent accidents from occurring.

Frequency	Safety Inspection
Monthly	<ul style="list-style-type: none"> · Safety Inspection Day (4th week, Wednesday) · Offsite Inspection (Yongin/Suwon) · Performance reporting for healthcare (Health/Maeumhuri, Musculoskeletal Center)
Quarterly	<ul style="list-style-type: none"> · Occupational Safety and Health Committee · Regular safety and health training for employees (online) · Inspection and evaluation of key suppliers
Semi-annually	<ul style="list-style-type: none"> · Semi-annual reports to the management on the Serious Accidents Punishment Act <ul style="list-style-type: none"> – Includes reports to the board of directors (December) · Regular risk assessments · Near-miss management · Inventory check of chemical substances · Inspection of local exhausts and safety gear · Evaluation of safety and health systems at daycare centers and suppliers
Annually	<ul style="list-style-type: none"> · Line evaluations (Supervisors) · Health and safety plan (to achieve zero accidents) · Outsourced lab Inspections · Budget plan for health and safety (October) · Supervisor training (May) · Inspection and assessment of the Vietnamese subsidiary (July)
Other	<ul style="list-style-type: none"> · Fire drills (November) · Themed inspections (pre-holiday, wind and rain damage prevention) · Cross-checks of affiliates



Environmental Safety and Health(ESH) Management

Work Environment Management

Hanwha Vision reviews any potential harmful factors in the workplace and does not introduce materials or facilities that may harm the safety and health of workers, or use them after taking supplementary measures. In addition, we obtain safety information on facilities, including harmful factors in advance, provide and educate workers, and regularly monitor health abnormalities through special medical examinations. We prioritize the safety and health of our workers and recognize that safeguarding them is our greatest competitive advantage. As such, we listen to our employees' and consider ways to improve the working environment.

Emergency Response

Hanwha Vision has established a process for identifying and assessing health and safety hazards to prevent and respond to emergencies and implements them annually or when introducing new changes. We select a person in each department to, provide specialized training to respond to each emergency situation, and constantly conduct annual drills and improvement measures such as fire evacuation and chemical accident drills. In addition, we regularly conduct CPR drills to improve our employees' ability to respond in the event of an emergency.

CPR training



Health and Safety Management System Certification

Hanwha Vision acquired ISO 45001 certification, the global standard for health and safety management systems. We are enhancing our safety and health management system by identifying and addressing where improvement is needed through our own system operation as well as audits by specialized organizations.

Supply Safety Management

Stricter Safety Management for Suppliers

Hanwha Vision requires our suppliers to fulfill their social responsibilities and has established a supplier management process for this purpose. Suppliers must develop a safe work plan and obtain work authorization before working at heights, in confined spaces, using lifting equipment and cranes, and performing excavations, demolitions, and welding. Since 2022, we have been conducting self-inspections on fire safety once a month, safety training for suppliers once a year, and visiting suppliers twice a year to perform fire safety inspections.

SO 45001 Certification



Human Rights and Human Resources Management

Human Rights Policy and Promotion

Declaration of Human Rights Management

Hanwha Vision complies with all labor principles and laws ratified by the state and recommended by the International Labor Organization (ILO) regarding the prohibition of child labor, prohibition of forced labor, health, safety, and working hours. We strive to create a corporate culture where all employees and stakeholders are respected. Where national and regional labor laws differ from our own, we comply with local laws.

Hanwha Vision also demands immediate corrective action from suppliers who have committed serious violations such as child labor and forced labor and suspends trade with them if corrective action is not taken.

Declaration of Compliance



Labor Policy Statement



Measures for Human Rights Protection

Hanwha Vision 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 implements strict disciplinary measures against perpetrators in accordance with the regulations in the event of related violations. When a grievance is received through the Smart Grievance Center, we take immediate preliminary measures to protect victims and hold a disciplinary committee meeting to resolve the issue after verifying the facts.

Efforts for Communication

GWP (Great Work Place)

Hanwha Vision operates the Great Work Place (GWP) system to interact with employees. GWP leaders are selected by teams and serve as VOP (Voice of Persons) messengers to communicate team members' grievances and inconveniences to the company. Furthermore, through weekly, monthly, and part meetings, the GWP system discusses various agendas and presents ideas to create a better place to work.

Departmental workshops

Hanwha Vision fosters an energetic atmosphere through annual department workshops. These sessions encourage discussions and diverse activities to strengthen team camaraderie. Additionally, interdepartmental workshops promote better understanding and communication among teams, helping to prevent silos and cultivate a collaborative environment.

Departmental Workshop- Popcorn Workshop



Zerotalk

Hanwha Vision operates Zerotalk as a channel for collecting VOCs from employees. We have a dedicated email account for Zerotalk, where we receive employee VOCs and give feedback with the cooperation of relevant departments. We post VOC feedback on our internal bulletin board and share it with employees across the company.

Zerotalk notice board





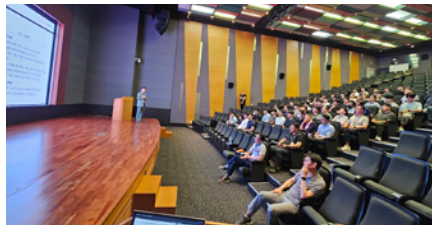
Human Rights and Human Resources Management



Townhall Meeting

Hanwha Vision conducts Townhall Meetings twice a year to share strategies and visions and to engage in two-way communication at office and center levels. The program consists of sharing organizational goals, reviewing performance, encouraging goal achievement, and listening to employees.

Townhall Meeting



Labor-Management Communication

Hanwha Vision respects its employees in accordance with the three labor laws guaranteed by the Constitution. Each year, Hanwha Vision conduct wage negotiations to maintain and improve working conditions. In 2022, for example, more maternity support was made available. They foster a culture of communication and active contribution by regularly engaging in quarterly labor-management meetings and union discussions to gather feedback.

A Good Organizational Culture for Work

Flexible Working Hours

Since 2016, Hanwha Vision has been improving the quality of life of its employees by operating a voluntary commuting system where employees manage their own commuting time and are evaluated based on their performance. (Working 4 hours a day, over 40 hours a week)

Creating a Family-Friendly Corporate Culture

At Hanwha Vision, we value the family experience of our employees to enhance their sense of belonging and pride. To this end, we contribute to creating a family-friendly corporate culture through various initiatives, such as inviting parents and children to activity programs every year.

Invitation Events for Parents and Children



Balanced Work and Family-Life Programs

Hanwha Vision aids work-life balance by offering pregnancy registration and maternity packages. For pregnancy, we allow a 2-hour reduction in working hours beyond legal standards and operate a 2-hour reduction for childcare periods following a single 4-hour operation.

Benefits

Hanwha Vision offers various welfare programs to address common concerns among employees such as health, children's education, and retirement planning. For managers and above, we provide a sabbatical month, enabling a one-month vacation, and operate resorts to offer leisure opportunities and recharge time for employees.

Pleasant Work Environment

To create a pleasant work environment, Hanwha Vision implemented the Good Place Campaign, which promotes etiquette for business spaces and Clean Office Days.

Clean Office Day





Human Rights and Human Resources Management

Culture of Diversity and Inclusion

Supporting Women Employees

Hanwha Vision fosters the development of future female leaders by ensuring career advancement and equitable opportunities for employees. We operate various leaves and reduced working hours for pregnancy, childcare, infertility, and family care. Infertility treatment leave is granted for up to three days annually, with the first day being paid. Moreover, to support employees requiring infertility treatment, we offer annually, with the first instance providing 100% of basic salary.

Support for People with Disabilities

Hanwha Vision supports employees with disabilities, helping them to optimize their skills in an accessible environment. Additionally, we offer extra educational support for employees with children who have disabilities, beyond our regular assistance.

Support for Foreign Employees

Hanwha Vision assists foreign employees and their families relocating to Korea by offering accommodation and educational support for children, visa assistance, and annual round-trip tickets for family members to visit their home countries.

Evaluation and Compensation

A Fair Performance Evaluation System

Hanwha Vision operates a fair compensation system for all employees. Individual performance and capabilities are evaluated, determining compensation through a five-tier rating system including EX (Excellent), VG (Very Good), GD (Good), NI (Needs Improvement), and UN (Unsatisfactory). Additionally, transparency in the compensation system is ensured through feedback and a process for lodging appeals based on evaluation results, promoting long-term growth opportunities for employees.

Transparent Performance Management

Hanwha Vision aims for fair performance evaluation and compensation by implementing a continuous process management system. We align departmental and personal goals with company objectives and conduct interim interviews to oversee progress.

Reasonable Compensation System

Hanwha Vision's pay system covers salaries, travel expenses for holidays, and performance-related incentives like PI(Productivity Incentive) and PS(Profit Sharing) based on individual and corporate performance. These compensation structures reward excellence and motivate employees.

General Awards Program

Hanwha Vision acknowledges contributions through awards like the NewHanwha Award, Challenge Award, Dedication Award, and Integrity Award. These recognize individuals and teams for their roles in profit generation, sales, and alignment with core values. The NewHanwha Award spans six categories including sales growth, cost reduction, R&D, productivity improvement, patents, and environmental safety. The Challenge, Dedication, and Integrity Awards honor initiatives in environment, safety, health, quality, security, cost reduction, technological development, social contribution, labor, and organizational culture change.

Inside Tech Winners

Hanwha Vision runs an idea implementation contest, Inside Tech Winners, to offer employees the opportunity to innovate. Each year, ideas submitted through the open call are reviewed against criteria such as innovation, mass production potential, marketability, and resource input. Ideas selected as Inside Tech Winners are transferred to business units for sustainable development.

Inside Tech Winners





Human Rights and Human Resources Management

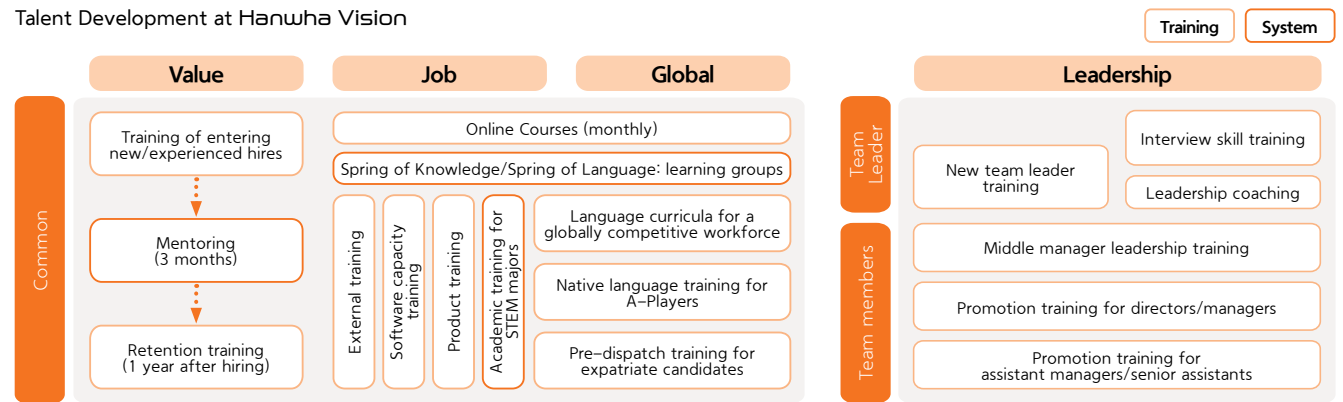
Acquisition and Training of Talent

Talent Training System

At Hanwha Vision, our ideal talent has a sense of ownership, is differentiated from others, and embraces change. We empower our employees to take responsibility, lead change in the age of VUCA,¹⁾ and create superior performance. For the employees of Hanwha Vision, we offer a training system to improve their value, job, global, and leadership capabilities.

1) VUCA: Volatility, uncertainty, complexity, and ambiguity

Talent Development at Hanwha Vision



Talent Development Strategy

Hanwha Vision strives to acquire and nurture talented people based on the belief that talent is the best asset for creating sustainable performance and future growth engines.

Talent Development Strategy at Hanwha Vision





Human Rights and Human Resources Management

Employee Capacity Development Program

| Employee Job Capacity Training

Hanwha Vision operates online and external training to ensure technological competitiveness and improve skills across the organization. We offer a wide range of learning paths and online and offline training to help our employees create self-directed learning plans and take relevant courses.

Employee job capacity training

Online training	Course enrollment through Inlearn (job training site)
External training	Application and training for individual capacity building and reporting of results

| Training for Experienced Hires

Hanwha Vision provides product training to help experienced hires understand the product lineup and gain software competency (Git¹⁾ and Docker (shape management) training for developers). The program increases their understanding of the company and their confidence skills, helping to support organizational growth.

1) Git: A distributed version control system based on a stream of snapshots for tracking changes in computer files and coordinating work on those files among multiple users.

| Onboarding Program for New Hires

Hanwha Vision operates various onboarding programs for new employees, including introductory training. Programs include TA¹⁾ diagnosis, introduction to departmental tasks, team building, experiential learning (visiting Hanwha Memorial Hall and 63 City), and mentoring. They are expected to have positive effects, such as improving new employees' adaptability to the organization and increasing their understanding of departmental tasks.

1) TA: Transactional analysis used to interpret social interactions

| Language training for a global workforce

Hanwha Vision supports employees who need to improve their global competencies through language education programs such as 1:1 video classes and e-learning.

Language Education Program



| Training of A-players

Hanwha Vision runs a development program to select and train top performers and A-players with the potential to perform key roles in the organization, who will rise to key positions and be dispatched overseas.

A-player training program

Workshops	Recognizing the role as a leader, understanding Hanwha Vision's business strategy, and planning career development
Leadership capacity building program	Leadership assessment, 1:1 interviews, group coaching, a roundtable with the CEO
Global capacity building program	1:1 language education program with native speakers based on OPIC grades (IH or higher)
Roundtable with the CEO	Enhancing loyalty through conversations with the CEO

| Training of expatriate candidates

To operate overseas bases (subsidiaries and branches) and perform expatriate duties successfully, Hanwha Vision provides continuous training before dispatching to improve capabilities.

Expatriate candidate training program

1:1 training program with a native speaker	Selection from in-person, video, or phone training
Expatriate candidate and spouse education program	Leadership, local communication skills, and family adaptation



Human Rights and Human Resources Management

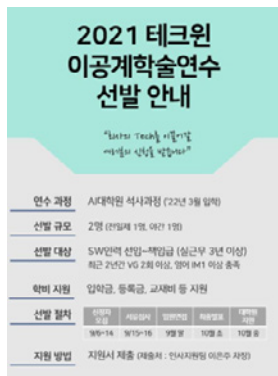
| Academic training in science and engineering

To strengthen our competitiveness as we expand our AI business, Hanwha Vision fosters and attracts talent with knowledge and skills in the AI field. One of the ways we do this is by supporting graduate programs in AI.

| Opportunities for Excellent R&D Talents

Hanwha Vision has selected 13 of the next generation of R&D talents to participate in major events in the U.S. and Europe, providing them the opportunity to meet and share global technology trends and innovative ideas. Selected employees can enhance their expertise and capabilities by working on R&D projects.

Selection Guidance for Academic Training in Science and Engineering



The Security Event



Recruitment

| Job-linked program

Hanwha Vision operates a job-linked internship program for (upcoming) graduates to recruit outstanding talent. During the internship, candidates participate in projects prepared by the team to improve their practical skills and adaptability to the company for their early input to the workforce. In 2023, 25 interns were converted into full-time employees through the internship program, further strengthening its link to recruitment.

| Job capacity-based hiring

As a company that researches and develops both hardware and software, Hanwha Vision operates a recruitment process that focuses on job competencies for each relevant field. The hardware division holds presentation interviews centered on the designated jobs, and the software division conducts coding tests to evaluate development capabilities.

| Specialized Academies

To recruit excellent developers, Hanwha Vision is conducting targeted recruitment via specialized academies (SSAFY, Code States, Human Resources Development Service of Korea, Korea Employment Agency for Persons with Disabilities). As a result, the recruits are able to adapt quickly to the work environment without prior field experience.

| Recruitment by direct sourcing

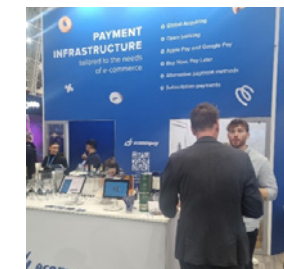
Hanwha Vision recruits by direct sourcing, where our recruiters reach out in person to find the right talent for the company.

Before recruitment begins, we discuss the position to be filled with employees to understand current business needs. Based on this, we find and recruit the appropriate talent on a recruitment platform that fits these needs.

| Recruitment by ATS(Applicant Tracking System)

We have a separate ATS to manage our recruiting process, allowing us to provide the same positive experience for all applicants. By automating repetitive tasks, we free up time to focus on our candidates and personalize the hiring process.

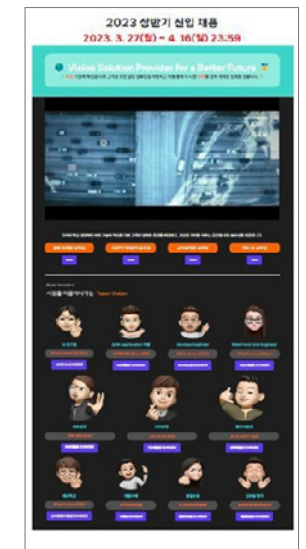
Retail Technology Show



Recruitment Briefing



Recruitment via ATS System





Mutual Growth

Mutual Growth System

Hanwha Vision is operating a roadmap for promoting shared growth and aims to achieve a “corporate ecosystem that goes farther together” by “building a foundation for shared growth,” “improving the competitiveness of suppliers,” and “enhancing sustainable growth.” In particular, we plan to operate a Co-Work Plaza to improve the competitiveness of our suppliers and expand our shared growth program to our second and third-tier suppliers.



Establishing fair trade/subcontracting systems

- Company-wide adoption of the fair trade culture
- Development of creative support programs
- Transition to domestic production and vitalization of transactions between suppliers

Building the foundation for mutual growth

Achieving competitiveness through top-quality

- Co-Work Plaza
- Platform for sharing parent company's know-how
- Nurturing first-class quality and technology

Enhancing the competitiveness of suppliers

Expansion and advancement of mutual growth

- Supporting suppliers to succeed in the market through independence
- Expanding support for tier 2 and 3 suppliers

Advancement of sustainable growth



Mutual Growth

Key Activities for Shared Growth

Win-Win Cooperation Program

| Win-Win Cooperation Network (Win-Win Cooperation Council)

To promote communication and synergies with suppliers, Hanwha Vision operates the Win-Win Cooperation Council, a representative council of suppliers, and holds regular general meetings and management briefings. We also established various communication channels for our partners to listen to their actual pain points and improve them.

| Financial Support

To help our suppliers improve their financial health, Hanwha Vision has improved payment terms, including full cash payment, shorter payment due dates, and early payment before holidays.

Top Four Fair Trade Guidelines



Principles for contract conclusion



Selection and operation of suppliers



Installation and operation of an internal deliberation committee on subcontracting transactions



Issuance and retention of documents

Supply Chain Management

Compliance with Fair Trade Laws

To comply with subcontracting laws and regulations, Hanwha Vision has adopted and operates the four guidelines for fair trade established by the Fair Trade Commission.

Selection and Evaluation of the Supply Chain

Hanwha Vision values transparent and fair evaluation criteria for selecting and managing our business partners, the suppliers. Yearly evaluations focus on quality, delivery, cost reduction, and compliance. We categorize suppliers into grades and collaborate internally to improve lower-rated suppliers. In our 2022 assessment, 96% of suppliers achieved a grade of B or higher, marking a 14% improvement from the previous year.

Supply Chain Assessment Process



Evaluation of new registrations

- Registration of a potential supplier
- Qualification screening and registration evaluations
- Credit checks through credit rating agencies



Regular evaluations

- Quality assessment, technical assessment, purchase assessment, performance assessment
- Are there any violations of integrity management?
- AEO certification, awards related to mutual growth



Management of evaluation results

- Notification of evaluation results and request to derive improvement measures
- Monitoring the completion of improvement measures

Sustainable Purchasing

Conflict Minerals

In order to fulfill its corporate social responsibility, Hanwha Vision does not purchase or use materials containing minerals from conflict areas. We will continue to widely promote the policy to ban conflict minerals through education and informing our suppliers.

Strategic Materials Management

Hanwha Vision fulfills its corporate social responsibility to maintain international security and world peace and complies with relevant laws, including the Foreign Trade Act, as well as the Korean Security Agency of Trade and Industry's voluntary compliance program for strategic materials.

Statement on the Implementation of Autonomous Export Management of Strategic Materials

첫째, 우리는 전략물자 수출통제 제도를 이행하는 것이 국제 안보와 세계평화에 관련된 기업의 책임을 다하는 것임을 모든 임직원이 깊이 인식하고, 이를 공유 하도록 노력한다.

둘째, 우리는 전략물자를 자율적으로 관리하기 위하여 회사내에 필요한 조직과 체계를 구축하기 위해 적극 노력한다.

셋째, 우리는 정부의 전략물자 수출관리 정책에 적극 협력하며, 전략물자 불법 수출 등 위반 행위 발생을 방지하기 위해 최선의 노력을 다한다.

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Quality Management

Quality Management Implementation System

Governance

Hanwha Vision has designated the quality manual based on the ISO 9001:2015 Quality Management System as the highest internal work standard. We continuously strive to realize customer satisfaction beyond customer satisfaction, led by the CEO. We have also designated an executive in charge of global CS as a quality management representative to ensure perfect quality. Every month, we report quality and service-related KPIs, causes and countermeasures for major market and process quality issues through quality management meetings organized by the CEO to continuously improve the quality of our products on the market.

Vision and Mission

Hanwha Vision's quality vision is "Realizing customer satisfaction through perfect quality and service innovation." We have set three goals: zero quality accidents, speeding up service, and pursuing quality efficiency. These are also listed on our website to express our commitment to impeccable quality to our employees and customers, both internally and externally.

Quality Policy Vision

[Delivering Customer Delight through Perfect Quality and Service Innovation]

Zero Defect Mentality, Improved Service Speed, Pursuit of Quality Efficiency

Quality Management Supervision System

Hanwha Vision is ensuring quality stability by clearly defining responsibilities for each department (process) and conducting regular management through the Plan-Do-Check Cycle to achieve its quality vision. Throughout the entire process from product planning to sales, it employs computerized systems and standard processes to establish and rigorously manage a quality verification system. Through systems like ERP (SAP), PLM (development management system), MES (manufacturing management system), CRM (sales/service management system), OPS (supplier/purchasing management system), and SCM (company-wide supply chain management system), it conducts real-time management, analysis, and monitoring based on data linkage between each system.

Key Activities for Quality Management

Sustainable Product Development

Hanwha Vision is developing vision technology-based solutions through its headquarters R&D Center in Pangyo Techno Valley, conducting advanced research in future technology strategies focusing on AI and cloud. Through the Innovation Center in the United States, it is dedicated to developing core technologies for future business such as AI and cloud, which are prospective core competencies for Hanwha Vision. Particularly, it has established a global AI R&D system based on its headquarters, the US R&D Center, and an AI data lab, securing AI full-stack capabilities from strategy formulation to data processing, commercialization, and the development of future elemental technologies, accelerating R&D for sustainable competitiveness.





Quality Management

Quality Management System Certification

Hanwha Vision has been certified as a quality management system (ISO 9001:2015) to provide safe and top-quality products to our customers. We check and improve our processes through internal audits and follow-up and renewal audits every year.

Strengthening of Internal Audits

To strengthen our quality management system, Hanwha Vision has increased the number of internal auditors from 4 to 13 in 2022. The internal auditors were formally granted the auditor qualification through the "Internal Auditor Expert Course" commissioned by an external organization. They maintain the auditor qualification based on prior training and audit experience during internal audits every year. They consist of members from various departments, such as product planning, marketing, development, manufacturing, and quality, to ensure that each step of the process is checked thoroughly.

Increasing Customer Value

VOC management

Hanwha Vision actively reflects the needs and voices of customers through a VOC management system for customers, sales, and business partners. We strive to improve customer satisfaction and secure business continuity by clarifying the handling procedures and information transmission system for VOCs generated domestically and overseas, which allows us to efficiently deliver market-quality information to the relevant departments for prompt resolution.



Customer Satisfaction Surveys

Hanwha Vision conducts customer satisfaction surveys on the results of our service activities (repair results, friendliness of service technicians, repair costs, inconveniences, etc.) for customers who have used Hanwha Vision's after-sales product service (hereinafter referred to as A/S). We are committed to improving satisfaction from customer service by objectively identifying customer satisfaction levels

ISO 9001:2015



according to location, service type, and customer type through regularizing customer satisfaction surveys, identifying and promoting improvement tasks, and analyzing fluctuation trends.

Service Representative Training

Hanwha Vision manages and supervises timely services for defective products within two days through training support activities for service point technicians and representatives in charge of accounts. To minimize customer complaints and achieve higher service satisfaction, we continuously work hard to provide higher quality services during the product maintenance phase and to respond quickly to complaints.

Training support

Awards for service point evaluation results

Regular training of overseas service technicians and representatives in charge of in charge of accounts

Training site at a new service center in the Americas subsidiary

Service representative training





Corporate Social Responsibility

Corporate Social Responsibility System

Governance

Hanwha Vision has designated a social contribution officer in the Management Support Office, who plans and implements social contribution projects for local communities with the help of donations from employees.

According to our annual social contribution plan, a large percentage of our employees participate in social service activities. At the end of the year, we encourage employees to join volunteer activities by awarding outstanding volunteers.

Vision and Mission

Hanwha Vision's social contribution philosophy is "going further together" and our vision is "a happy tomorrow we build together". Based on the founding philosophy of "contribution to the nation through business" and the Hanwha spirit of "trust and loyalty," Hanwha has built strong trust with the local community and aims to fulfill its social responsibility by adhering to the philosophy of "going further together".

Corporate Social Responsibility Slogan



Corporate Social Responsibility Vision and Mission

VISION

'A happy tomorrow we build together'

Hanwha is building 'a happy tomorrow' by 'going further together.'

MISSION

A happy life our employees make together

A society growing together through sharing and caring

Bright and healthy future by creating environmentally friendly values



Corporate Social Responsibility



Corporate Social Responsibility Program

Hanwha Vision's CSR programs, aimed at creating a happy tomorrow together, are categorized into eco-friendly CSR and local community service. The various programs under each category are run with the active participation and support of management and employees.

Environmental Clean-Up



Hanwha Vision conducts quarterly environmental cleanup activities with over 20 voluntary participants each time, four times a year, near the company building's parks and frequent smoking areas near stops. Additionally, approximately 60 volunteers engage in trash collection around the factory every June for Environmental Month.

Donation of Goods



Every December, Hanwha Vision donates items such as groceries and daily necessities for the elderly, single-parent families, and others who are marginalized in the community to provide practical help.

Donation Ceremony



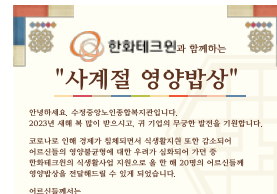
Each year, Hanwha and its affiliates, like Hanwha Vision, host a donation event for employees on the corporate anniversary in October. Revenue from donated item sales supports jobs and salaries for individuals with disabilities, fostering continuous opportunities for their complete independence.

Happy Table



Hanwha Vision, in partnership with the Seongnam Welfare Center for the Disabled, conducts twice-weekly meal delivery to homebound families with disabilities that have limited mobility to provide continuous and systematic support.

Year-round nutritious food support



Hanwha Vision has partnered with the Sujeong Jungang Senior Welfare Center in Seongnam-si to deliver side dishes to the elderly living alone once a week. We are also working to ensure their psychological stability and physical safety by checking in and communicating with them.

Seventieth and eightieth birthdays for solitary seniors in Seongnam



Every year, Hanwha Vision invites the elderly living alone in Seongnam-si who have reached their seventieth or eightieth birthday to the Seongnam Senior Center to celebrate with a meal and various performances.



GOVERNANCE

Hanwha Vision has a compliance committee responsible for ethics and compliance management. We provide guidelines to our members to help them comply with the law and are now developing training programs to increase the understanding of compliance.

Compliance Management Program

Hanwha Vision's internal compliance organization conduct regular self-inspection for our members, distribute specific regulations and manuals, raise awareness on compliance through regular training and check implementation status.

Compliance Organization





Governance

Board of directors

Board composition and role

The board of directors, Hanwha Vision's highest decision-making body, deliberates and resolves major management issues, including management policies, core business goals, and decisions on ESG risks and opportunities.

Board composition

Title	Name	Areas of expertise	Career highlights	Board tenure
Inside director (CEO) (Chair of the Board)	Ahn Soonhong	General Manager (CEO)	Current) CEO of Hanwha Vision Former) Head of Sales & Marketing, Hanwha Techwin Former) President of Hanwha Techwin America	Apr. 1, 2018 (Sep. 23, 2019)–Mar. 24, 2024
Inside director	Kim Ki-chul	Sales & Marketing (CMO)	Current) Head of Sales and Marketing, Hanwha Vision Former) President of Hanwha Techwin America	Oct. 29, 2021–Mar. 23, 2025
Inside director	Lee Sang-won	Development manager (CTO)	Current) Head of Hanwha Vision Development Center Former) SW Development Manager, Hanwha Techwin	Oct. 31, 2022–Oct. 20, 2024
Auditor	Jeon Yeon-bo	Financials (CFO)	Current) Head of Finance, Hanwha Aerospace	Oct. 29, 2021–Oct. 28, 2024

Board operation

Hanwha Vision follows the guidelines of the Articles of Incorporation and the board of directors' Operating Regulations for the overall operation of the board of directors and holds regular meetings every other month in principle, in addition to ad hoc meetings as needed.

In 2022, the board met 17 times, with an average attendance rate of 58.8%, and diligently deliberated and voted on a total of 37 reports and resolutions. Among the key agendas, the main issue related to sustainability management was the report on the safety and health plan.

Board operation

Period	Average attendance at board meetings for all directors
2022	58.8 %
Number of meetings	Number of agendas
17	37

Audit Organization

Hanwha Vision appoints an external auditor with the approval of the Audit Appointment Committee to regularly monitor the effectiveness and operation of the internal accounting management system. We ensure the fairness and transparency of accounting information through regular audits by an independent external auditor and hold regular meetings between the external auditor, the board, and the auditor to review the details and quality of the audit. The audit opinion for the fiscal year 2022 and the last three years was unqualified, with no other findings.



Ethics and Compliance

Ethics and compliance system

Recognizing that establishing compliance management as an organizational culture is an important element of sustainable management, Hanwha Vision has established missions, policies, standards, and regulations and conducts various activities such as training, inspection, evaluation system, and system operation to comply voluntarily with laws and regulations.

Ethics and compliance policy

Hanwha Vision adheres to Hanwha's management philosophy and legal standards, establishing and enforcing codes of conduct and guidelines to foster a transparent and honest culture among all employees. These guidelines, available in both Korean and English within the internal system, ensure compliance with anti-corruption laws and regulations domestically and internationally. They aim to promote fair, transparent business practices and have established practical ethical guidelines to support the company's healthy development and build customer trust.



[Hanwha Vision Employee Code of Conduct](#)



[Hanwha Vision Compliance Control Standards](#)



[Hanwha Vision Compliance Regulations for Anti-Corruption Act](#)

Mission for Ethical Management

We are creating a fair and honest company



- Establishing a clean corporate culture without corruption
- Constant training on fraud standards to build a foundation for preventive audit

We are improving the organization and institutions to maximize business efficiency.



- Enhancing irrational factors that are inefficient in the process
- Eliminating discontinuity of business due to departmental egoism

We strive to increase enterprise value



- Consulting vulnerable sector management and dissemination of success stories
- Introducing an advanced audit system to diagnose signs of insolvency early

Code of Ethics Practice Guidelines

Supplier selection and fair trading

- Selection of suppliers
- Transactions with companies
- Equity investment

Acceptance of money, valuables, and entertainment

- Money and valuables
- Entertainment
- Favors

Prohibition of graft and provision of money and valuables

- Graft
- Provision of money and valuables



Use of company assets

- Misuse of company assets
- Leaking information and personnel
- Embezzlement and appropriation of company funds

Manipulation of documents and calculations and false reporting

- Manipulation and alteration of documents and calculations
- False reporting

Other basic ethics for employees

- Prohibition of sexual harassment and related acts in the workplace
- Prohibition of cash and gift transactions between employees
- Guideline for the correct use of social media

Ethics and Compliance

Governance

Hanwha Vision operates a legal team under the Management Support Office to ensure ethics and compliance. To promote compliance management, it has established the Compliance Committee as the highest decision-making body, comprising top executives, conducting regular biannual meetings to review compliance control operations, resolve related regulation establishment, and recognize outstanding activities. Additionally, the Management Innovation Team within the Management Support Office performs management and irregular audits, appointing compliance supporters to regularly monitor and report on compliance with control standards.

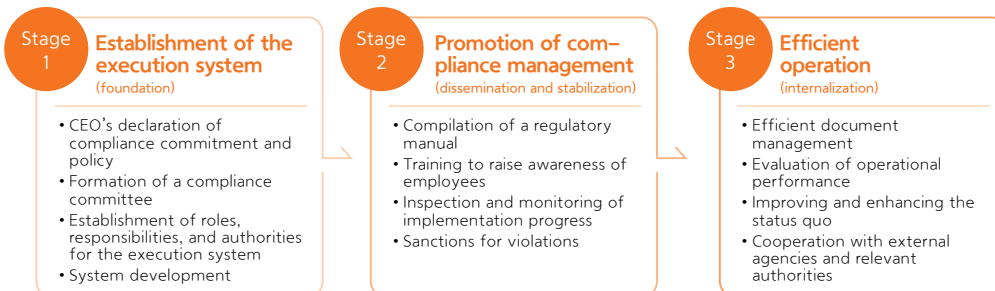
Ethics and Compliance Governance



Management Process

Hanwha Vision manages internal compliance through a three-stage approach: building an execution system, promoting legal compliance management, and ensuring efficient operations. Moreover, it has established a systematic risk management system by categorizing major management targets into seven types, defining the risk types for each, and organizing dedicated departments for them.

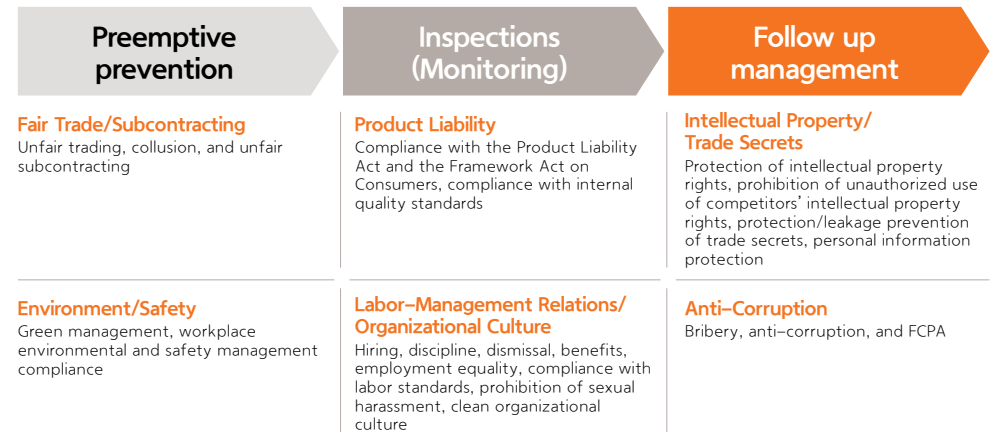
Stages of Compliance Implementation



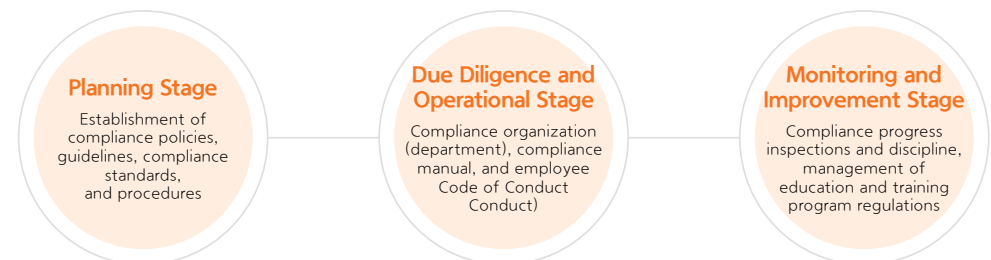
CP (Compliance Program)

Hanwha Vision minimizes potential losses in the corporate business environment and complies with fair trade regulations through its self-governing internal compliance system, CP. This system encompasses compliance with regulations and risk management, evaluating compliance across various aspects of corporate management, from fair trade and subcontracting management to financial and accounting practices. By preventing legal violations, reducing losses, safeguarding employees, and fostering trust among customers and stakeholders, Hanwha Vision aims to build a solid business environment.

Items Subject to Compliance Program



CP Steps and Key Elements





Ethics and Compliance

Key Activities for Ethics and Compliance

Publication of Compliance Results Reports

Hanwha Vision has been publishing an annual Compliance Report since 2020, sharing key compliance initiatives, activities, survey results, and performance. The primary focus areas include enhancing employees' awareness of compliance, fostering a voluntary compliance culture, strengthening leadership's compliance capabilities, and encompassing education, audits, and promotion, structured into seven main categories.

Key Initiatives	Overview
Evaluation through Executive Compliance Index	<ul style="list-style-type: none"> All executives pledge to practice compliance management → Tone at the "TOP" Ensuring evaluation fairness through objective items and quantified criteria
Compliance Index Evaluation of Managerial Positions	<ul style="list-style-type: none"> All managerial positions pledge to practice compliance management → Tone at the "TOP" Encouraging compliance activities of frontline departments through evaluation of managerial positions

Compliance Report, 2020



Compliance Report, 2021



Training

Hanwha Vision conducts various education programs to enhance employees' legal awareness and prevent legal violations. It provides annual legal and foundational educational and training for newcomers and experienced professionals, promotion-focused education, and hands-on learning opportunities. The Eye-Level Education program comprises 16 topics, ensuring employees attend at least one program. Additionally, it conducts online training twice a year for executives, ensuring a consistent learning environment even in situations where on-site training is challenging.

Criteria and Results of Compliance Index Assessment

Ratings	S	A	B+	B	C
Score	Over 105 points	Over 100 points	Over 90 points	Over 80 points	Less than 80 points
Conversion score	5 points	4 points	3 points	2 points	1 point

※ 5 points out of 100 points attributed to the compliance index

Compliance Training

Field	Schedule	Method/description	Result
Compliance training for all employees	April	Basic training in compliance management (basic, subcontracting, and anti-corruption)	705/712 (99%)
Statutory training	May	Sexual harassment and harassment prevention training	799/801 (99%)
Customized training	June to August	Online training of 16 major training themes selected by departments	799 (15 subjects)
Compliance training for executives	March	Basic training for compliance management (insider trading)	8/8 (100%)
	August	Global human rights management and corporate policy of the new administration (online training by an external instructor)	8/8 (100%)
Special training for managerial positions	March	Basic training for compliance management (insider trading)	60/60 (100%)
	August	Sexual harassment and workplace harassment prevention (online training by an external instructor)	60/60 (100%)

Consultation/Report

Hanwha Vision operates a channel for reporting employees' unfair business practices or unfair acts and corruption that abuse their positions. The report can be made through the channel on the Hanwha Vision website or via e-mail. In principle, we respond to reports by phone or e-mail as soon as possible, and the identity of the reporter and the contents of the consultation and report are strictly protected.

Executive Compliance Index Evaluation
105.5
out of 100 points

Occupational Compliance Index Evaluation
102.4
out of 100 points



Ethics and Compliance

Consultation/Report

Hanwha Vision operates a channel for reporting unfair handling of work or misuse of position for unethical behavior and misconduct. Reports can be submitted through the Hanwha Vision main website or via email. The principle is to promptly respond to the reported issues via phone or email and ensure the utmost confidentiality of the reporter's identity and content of the report.

Compliance consultation and reporting channel

Report type	<ul style="list-style-type: none"> • Embezzlement and bribery of employees • Unfair business practices of employees • Soliciting or offering money or entertainment • Unfavorable equity participation in a nonpublicly traded entity • Dual employment of employees • Sexual harassment cases • Workplace harassment • Other Code of Conduct violations
Report method	<p>e-mail audit.techwin@hanwha.com</p> <p>Address Management Diagnostics Team, Hanwha Vision, 6, Pangyo-ro 319beon-gil (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do</p>

Spreading Compliance Culture

Raising Compliance Awareness

Hanwha Vision conducts compliance assessments and holds compliance awareness activities three times a year for executives and managers. This activity involves selecting relevant topics, disseminating them to their teams, and recording outcomes through offline or online means. Through this, it contributes to raising employees' compliance consciousness and establishing a continuous culture of compliance.

Developing Engagement Programs

Hanwha Vision endeavors annually to develop various programs such as Compliance Week and Compliance Practitioner's Day, ensuring participation and engagement from all employees. Through these initiatives, the company strives for comprehensive compliance management, fostering a culture where employees perceive compliance activities not as arduous tasks but as necessary support in their work and daily lives. The aim is to naturally integrate these practices into their routines.

CEO's Letter for Compliance Management

Hanwha Vision understands the significant importance of compliance management in corporate governance. In January 2022, the CEO's comprehensive compliance management statement aimed to reinforce efforts on legal and compliance risks and encourage active participation from all employees. These declarations and similar content were publicly posted on the company's internal bulletin board, allowing everyone to easily verify the company's commitment to compliance practices.

Employee Practice Pledge

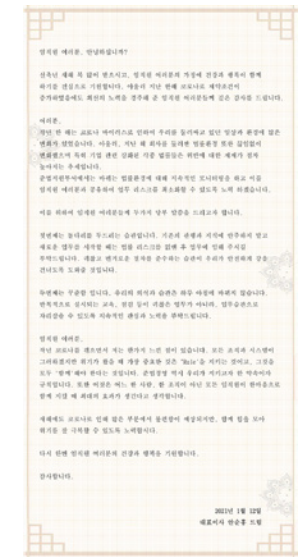
At least once a year, all employees of Hanwha Vision submit a compliance pledge to familiarize themselves with the ethics and compliance regulations and pledge to comply with the policies and systems. The pledge covers our Code of Conduct and various compliance obligations, including improper solicitation, security laws, and fair competition. In 2022, we achieved a 100% pledge submission rate for all employees, including the CEO.

Compliance with Fair Trade

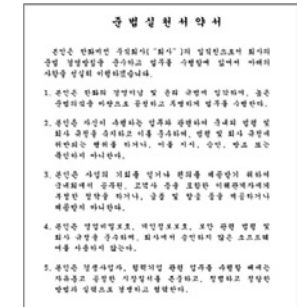
Fair Trade Compliance Activities

Hanwha Vision prepares standard contract templates in accordance with subcontracting laws to provide and guide partners in their transactions, ensuring fair and reasonable dealings. It strictly prohibits the acceptance of monetary gifts or presents and conducts regular inspections to verify compliance with subcontracting laws. If any violations are detected, immediate corrective measures are taken.

CEO's Letter for Compliance Management



Compliance Practice Pledge





Information Security

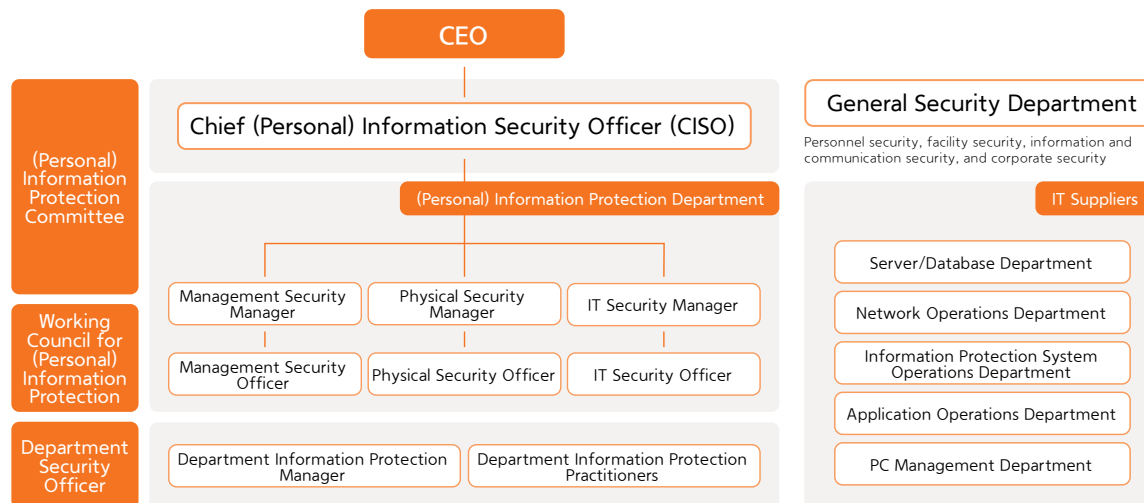
Information Security Management System

Information Security Policy

Hanwha Vision is in the process of taking the leap from selling products to becoming a vision solutions provider. All of our members recognize the importance of information protection for social responsibility and safe delivery of service. We declared a statement of information protection and shared it with all the members. We also administer company-wide information protection activities through an information protection management system based on the information protection guidelines and subordinate standards and procedures. Hanwha Vision is also committed to compliance with personal information treatment regulations.

Governance

Hanwha Vision is placing a strong emphasis on social responsibility and providing safe services as it transitions from mere product sales to becoming a vision solutions provider. It ensures that all employees understand the significance of information security and has established an information security declaration that is shared company-wide. Additionally, the company has implemented an information security management system to adhere to guidelines and procedures while strictly complying with regulations on handling personal data, reinforcing compliance efforts.



Key Activities for Information Security

Certification of the Information Security Management System

Hanwha Vision collaborates with Hanwha Systems in managing information security activities. In order to systematically manage critical information assets and systems while ensuring safe service provision, we obtained the global certification for Information Security Management System (ISO 27001) in October 2023. Additionally, our overseas branches execute protective measures based on ISO 27001's security control criteria, encompassing administrative (security policies, personnel/asset security, etc.), physical (secured areas, personnel control, etc.), and technical (access control, data security, etc.) security actions.

ISO 27001 Certification



- 1) ISO27001: An international standard for information security management systems (ISMS) to improve the security management level of an organization using a PDCA-based life cycle.

Prevention of Information Security Incidents

Hanwha Vision has a specialized team at the Integrated Security Operations Center (Jukjeon IDC) dedicated to detecting and responding to security events continuously. Access to servers and databases for preventing internal information leaks requires prior application and approval based on appropriateness, with regular reviews and reporting for ongoing management. Additionally, to prevent security incidents, they conduct biannual vulnerability assessments, phishing email response training, and annual penetration tests. To enhance employee awareness of information security, they use the groupware bulletin board to regularly share the latest updates.



Information Security

Assessment of Information Security Levels

In the latter half of each year, **Hanwha Vision** evaluates security across five areas: management, physical security, information system management, operation, and personal data protection. In 2022, they reviewed overseas subsidiary security, implemented improvements, developed cloud security plans, enhanced strategies for recognized security certifications, achieving a score of 4.13 (out of 5) in the overall security assessment. Scoring between 4.1 and 5.0 signifies the ongoing integration of best information security practices.

Evaluation items		Controlled area
Management security		<ul style="list-style-type: none"> Establishment and operation of an information protection policy Operation of an information protection organization Personnel security Raising awareness Information asset management
Physical security		<ul style="list-style-type: none"> Access control Computer equipment and facility protection Protection of office space
Technological area	Information system security management	<ul style="list-style-type: none"> Server security Network security Database security Information protection system security Business system security PC security Special purpose server security
	Operation of information system	<ul style="list-style-type: none"> Examination and management of vulnerabilities Malware control and patch management Encryption control Remote access control Backup and log management Development security
Personal information protection		<ul style="list-style-type: none"> Collection of personal information Use of personal information Disposal of personal information

Information Security of Suppliers

In accordance with the Personal Information Protection Act, **Hanwha Vision** annually conducts inspections and training for our suppliers in 21 branches nationwide that have concluded consignment contracts with us to process personal information. In the metropolitan areas, we are conducting in-person inspections, and if in-person inspections are not feasible, they are conducted online. To correct the deficiencies discovered during inspections, we created and distributed guidelines for providing technical data to protect the technical data of our suppliers. As follow-up measures, we have been continuously monitoring the provision of technical data to subcontractors to ensure that no violations of the law occur.

Management of Personal Information Security

Hanwha Vision utilizes various activities through 'Personal Information Security Measures' employing technological safeguards. When accessing the personal information processing systems externally, they use methods such as VPNs or dedicated lines, and have established access control systems to regulate server and database access. Each handler accessing the personal information processing systems is given individual accounts, prohibiting sharing or simultaneous access. Additionally, access privileges vary according to the tasks of each personal information handler, and features like automatic logoff after a certain period of inactivity are employed to prevent unauthorized access attempts. Furthermore, the personnel responsible for personal information protection conduct checks on access privileges' appropriateness at least twice a year.

Insider Trading Review

Hanwha Vision has established a process for internal transaction deliberation and operates it internally. We have produced a guide and distributed it to the entire company and continually provide information and respond to inquiries.

Participation in Exhibitions

Hanwha Vision has participated in various exhibition events to enhance understanding of its products and security technologies. They showcased various technologies at events like the 'SECON 2023,' presenting insights using AI-based technology in the Vertical Solution Zone, Smart Parking Solution Zone, and an exhibit zone offering experiences with innovative products. Additionally, at exhibitions like ISC West 2023, the largest security exhibition in the United States, they introduced regionally customized solutions.

International Security Exhibition & Conference





ESG FACTBOOK

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ECONOMIC

Economic data was prepared based on Hanwha Vision's Audit Report (2022.12) for consistency with the disclosure report.

Consolidated Financial Statement

(Unit: KRW million)

Category	2020	2021	2022
Assets			
Current assets	198,775	314,020	377,140
Cash and cash equivalents	47,665	14,619	11,800
Other current financial assets	900	-	-
Other financial assets	-	343	-
Trade and other current receivables	121,419	240,189	319,889
Other current assets	6,290	8,119	3,425
Inventories	22,500	50,751	42,026
Non-current assets	189,090	221,070	227,218
Other non-current financial assets	35	35	1,536
Long-term trade receivables and other non-current receivables	1,352	8,424	2,457
Investments in subsidiaries and associates	36,928	57,023	57,244
Tangible assets	57,380	59,925	62,805
Right of use assets	2,915	2,406	1,881
Intangible assets	66,794	69,314	74,313
Other non-current assets	-	-	2,694
Deferred tax assets	23,686	23,942	24,288
Total assets	387,865	535,090	604,358

Category	2020	2021	2022
Equity			
Controlling interest	207,936	293,554	300,501
Share capital	10,000	10,000	10,000
Capital surplus	171,250	171,250	171,250
Accumulated other comprehensive income	2,375	2,375	2,375
Retained earnings or accumulated deficit	24,311	109,929	116,876
Total equity	207,936	293,554	300,501
Total equity and liabilities	387,865	535,090	604,358



ECONOMIC

Credit Rating

Category	Unit	2020	2021	2022
NICE Credit Rating ¹⁾	Rating	A-	A-	A0

1) 2020 A- (Stable) – 2019 Financial Statement / 2023 A0 (Stable) – 2022 Financial Statement.

Stock Ownership

Category	Unit	2020	2021	2022	
Ownership Status	Hanwha Aerospace	%	100	100	100
Total number of shares	Total number of issued shares	Shares	2,000,000	2,000,000	2,000,000
	Outstanding shares ¹⁾	Shares	0	0	0

1) Not applicable because it is a privately held corporation.

Distribution of Economic Values for Stakeholders

Category	Unit	2020	2021	2022	
Customers	Sales	383,877	611,027	804,087	
Employees	Employee wages ¹⁾	83,881	100,855	117,750	
	Wages and benefits	91,494	109,369	124,798	
Suppliers	Cost of purchasing from suppliers ²⁾	99,808	167,856	178,203	
Shareholders	Total cash dividends	KRW million	0	35,000	55,000
Investors	Interest expense on borrowings	1,236	696	4,684	
Government	Corporate tax+taxes and dues	4,508	32,513	31,256	
Local community	Donations ³⁾ and corporate social responsibility expenses	0	25	187	

1) Employee wages are reported under "Employee wages" in "Classification of cost of goods sold, selling and administrative expenses" in the financial statement.

2) The cost of purchasing from suppliers is based on the amount of raw materials used, as stated in the notes of the financial statement and the amount of current tangible assets acquired.

3) Contributions are based on the issuance of the statement of contributions and include employee contributions.



ECONOMIC

R&D Investment

Category	Unit	2020	2021	2022
R&D investment cost	Research expenses (ordinary development expenses) KRW million	77.4	90.6	111.3
R&D personnel ¹⁾	Persons	361	386	413
Patent and trademark registrations (cumulative) ²⁾	Korea	702(699/13)	803(799/14)	943(927/16)
	Overseas	789(573/216)	907(688/219)	963(743/220)

1) The number of R&D personnel is based on the number in the development personnel tax credit documents submitted in the corporate tax return.

2) Only applicable to the currently held rights (patents/trademarks).

Shares and Dividends

Category	Unit	2020	2021	2022
Total cash dividends	KRW million	5,000	35,000	55,000
Dividend type	-	Year-end dividend	Year-end dividend	Interim dividend
Cash dividend payout ratio	%	57	39	62
Cash dividends per share (common shares)	KRW	2,500	7,500	7,500
Voting in writing	-	Yes	Yes	Yes



ENVIRONMENT

Environment data was created by integrating data from the Vietnamese subsidiary where Pangyo operations and major manufacturing plants are located.

Greenhouse Gases

Category	Unit	2020	2021	2022
Total greenhouse gas emissions (Scope 1 + Scope 2) ¹⁾	tCO ₂ eq	6,743.7	7,121.6	7,141.3
Scope 1	tCO ₂ eq	270.7	248.3	258.0
Scope 2	tCO ₂ eq	6,473.0	6,873.3	6,883.3

1) Scope 1 and 2 emissions are based on the GHG statement for 2021 in the domestic emissions trading system, which may change after the statement is finalized. The total emissions of Scope 1 and 2 may differ from the combined value of each of Scope 1 and 2 depending on the application of the aggregation criteria after the business site-level audit.

Energy

Category	Unit	2020	2021	2022
Total energy consumption	TJ	109.1	114.9	114.5
Direct energy consumption	Subtotal	4.4	3.8	3.8
	Gasoline	0.5	0.9	0.8
	Diesel	1.5	1.6	1.9
	LPG	0.4	0.6	0.5
	LNG	2.0	0.7	0.6
Indirect energy consumption	Subtotal	125.2	133.5	133.4
	Electricity	118.8	125.9	126.3
	Steam	6.4	7.6	7.0

Category	Unit	2020	2021	2022
Total power usage at business sites		15,940.1	16,993.9	17,096.8
Renewable energy usage at business sites ¹⁾	MWh	1,358.0	1,394.5	1,410.2
Percentage of renewable energy consumption	%	8.5	8.2	8.2
Savings in energy consumption	TJ	0.3	0.4	0.6
Renewable energy usage by procurement method at business sites (self-generation and solar)	MWh	1,358.0	1,394.5	1,410.2

1) In the case of Pangyo, Hanwha Aerospace manages solar facilities and uses solar power as lighting on the 7th floor.

Concentration of Air Pollutant Emissions

Category	Unit	2020	2021	2022
NOx emissions	ppm	1,760	690	190
SOx emissions	ppm	5,240	2,620	2,620
Dust emissions	mg/Sm ₃	1.9	1.7	1.6



ENVIRONMENT

Concentration of Water Pollutant Emissions

Category	Unit	2020	2021	2022
Concentration of COD emissions		4.6	5.8	4.7
Concentration of BOD emissions	ppm	27.8	29.9	29.0
Concentration of SS emissions		25.0	18.0	25.0

Water and Wastewater

Category	Unit	2020	2021	2022
Water usage		47,449	54,190	52,401
Water supply usage		47,449	54,190	52,401
Sewage emissions	Ton	19,737	22,541	21,797
Wastewater emissions		18,218	20,807	20,120
Annual wastewater generation (Korea)		37,955	43,349	41,917

Waste

Category	Unit	2020	2021	2022	
Total waste generation ¹⁾	Ton	628.7	712.3	680.5	
General waste	Subtotal	604.3	689.6	667.1	
	Recycled	257.2	336.3	322.8	
	Landfilled	0	0	0	
	Incinerated	347.1	353.3	344.3	
	Other	0	0	0	
Designated waste	Subtotal	24.4	22.7	13.4	
	Recycled	0.5	0.5	0.6	
	Landfilled	0	0	0	
	Incinerated	3.3	2.1	4.0	
	Other	20.5	20.1	8.8	
Amount of recycled waste	Amount recycled	Ton	182.7	265.4	249.9
	Percentage of recycled waste	%	33.0	41.4	41.2
Waste disposal costs	KRW 100 million	0.1	0.1	0.2	

1) General waste + designated waste.



ENVIRONMENT

Hazardous Chemicals

Category	Unit	2020	2021	2022
Hazardous chemical usage	Ton	9.9	11.1	12.8

Environmental Training

Category	Unit	2020	2021	2022
Environmental training time ¹⁾	Hours	32	32	32
Number of employees participating in environmental training ²⁾	Persons	240	657	470

1) Total training hours.

2) Accumulated number of people who completed environmental education.

Environmental Management Systems

Category	Unit	2020	2021	2022
Percentage of environmental management systems (ISO 14001) certification ¹⁾	%	100	100	100
Number of certified business sites	-	1	1	1

1) ISO14001 certification by the Vietnamese subsidiary.

Environmental Laws

Category	Unit	2020	2021	2022	
Number of environmental law violations	Number of violations of legal regulations	Cases	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
Total amount of fines		KRW	0	0	0



SOCIAL

Social data is based on Pangyo operations and plans to expand the reporting scope to include data from major overseas subsidiaries in order to improve the completeness of the data in the future.

Employees

Category		Unit	2020	2021	2022
Total number of employees (Korea)		Persons	811	788	833
By form of employment	Permanent positions	Persons	792	761	802
	Men	Persons	671	646	675
	Women	Persons	121	115	127
	Percentage of permanent positions	%	98	97	96
	Temporary positions ¹⁾	Persons	19	27	31
	Men	Persons	11	15	10
	Women	Persons	8	12	21
	Percentage of temporary positions	%	2	3	4
Categories of temporary positions	Service workers ²⁾	Persons	12	16	12
	Percentage of service workers	%	63	59	39
	Dispatched workers ³⁾	Persons	7	11	19
	Percentage of dispatched workers	%	37	41	61

1) Contract + Dispatched.

2) General contract positions.

3) Dispatching services.

Category		Unit	2020	2021	2022
Gender	Subtotal	Persons	811	788	833
	Men	Persons	682	661	685
	Women	Persons	129	127	148
By age	Subtotal	Persons	811	788	833
	Under 30	Persons	48	44	69
	30-50	Persons	613	578	588
	Over 50	Persons	150	166	176
By nationality	Subtotal	Persons	811	788	833
	Korean	Persons	809	784	828
	International	Persons	2	4	5
	Subtotal	Persons	811	788	833
	Korea total	Persons	809	784	828
By region	Subtotal	Persons	1,798	1,941	2,126
	Korea total	Persons	811	788	833
	Headquarters ⁴⁾	Persons	784	760	806
	Headquarters (Expatriates)	Persons	27	28	27
	Overseas ⁵⁾	Persons	987	1,153	1,293

4) Pangyo business site.

5) Americas, Europe, Vietnam, Mexico, Singapore.



SOCIAL

Employees

	Category	Unit	2020	2021	2022
By rank	Subtotal	Persons	811	788	833
	Executive	Persons	9	13	13
	Men	Persons	9	13	13
	Women	Persons	0	0	0
	Managerial positions ⁶⁾	Persons	622	618	631
	Men	Persons	541	535	542
	Women	Persons	81	83	89
	Middle managers ⁷⁾	Persons	115	101	97
	Men	Persons	91	80	79
	Women	Persons	24	21	18
	Associate level	Persons	65	56	92
	Men	Persons	41	33	51
	Women	Persons	24	23	41

6) Manager or above.

7) Assistant manager.

Average Tenure

	Category	Unit	2020	2021	2022
Average tenure of employees	Average tenure		12.9	13.6	13.2
	Permanent positions	Years	13	14	13.7
	Temporary positions		4	3	0.8

Employee Diversity

	Category	Unit	2020	2021	2022
Female talent	Number of female managers (manager or above)	Persons	81	83	89
	Percentage of female managers	%	13	13	14
Recruitment of socially marginalized groups (Permanent + temporary)	Number of people with disabilities	Persons	23	21	12
	Percentage of people with disabilities	%	3	3	1
	Number of national veterans	Persons	9	8	8
	Percentage of national veterans	%	1	1	1
	Number of international employees	Persons	2	4	5
	Percentage of international employees	%	0	1	1



SOCIAL

New Recruitment

Category		Unit	2020	2021	2022
Total number of new recruits (Korea)		Persons	41	72	102
By form of employment	Permanent positions (new)	Persons	6	2	22
	Permanent positions (experienced)	Persons	15	34	56
	Temporary positions	Persons	20	36	24
Subtotal		Persons	41	72	102
Gender	Men	Persons	29	45	66
	Women	Persons	12	27	36
Subtotal		Persons	41	72	102
By age	Under 30	Persons	19	21	41
	30-50	Persons	22	50	61
	Over 50	Persons	0	4	0

Turnover and Retirement

Category		Unit	2020	2021	2022
Total number of turnover and retirement ¹⁾		Persons	35	95	54
Reasons for turnover and retirement	Voluntary turnover	Persons	23	72	39
	Early retirement	Persons	0	0	6
	Voluntary turnover ²⁾	Persons	23	72	33
	Involuntary turnover	Persons	12	23	14
	Regular retirement	Persons	0	7	0
	Contract expiration	Persons	11	15	14
	Disciplinary dismissal	Persons	0	1	0
	Resignation under suggestion	Persons	1	0	0
	Other ³⁾	Persons	0	0	1
	Turnover rate	%	4.3	12.1	6.4
Voluntary turnover rate	%	2.8	8.1	4.7	
Involuntary turnover rate	%	1.5	2.9	1.7	
Subtotal		Persons	35	95	54
Gender	Men	Persons	25	68	39
	Women	Persons	10	27	15



SOCIAL

Turnover and Retirement

Category		Unit	2020	2021	2022
By age	Subtotal	Persons	35	95	54
	Under 30	Persons	10	17	8
	30-50	Persons	35	87	54
	Over 50	Persons	3	18	10

- 1) The return-to-work rate after parental leave is calculated by counting the number of people who have returned to work at the time of the parental leave user's return.
- 2) Personal reasons, parenting, further education, voluntary move to a different company.
- 3) "Other" reasons for involuntary separations include employee deaths.

Parental Leave and Childbirth Leave

Category		Unit	2020	2021	2022
Childbirth leave users	Subtotal	Persons	43	37	29
	Men	Persons	34	29	20
	Women	Persons	9	8	9
Returnees to work after childbirth leave	Subtotal	Persons	34	29	20
	Men	Persons	34	29	20
	Women ¹⁾	Persons	0	0	0
Percentage of returns to work after childbirth leave	Subtotal	%	79	78	69
	Men	%	100	100	100
	Women ¹⁾	%	0	0	0

- 1) The return-to-work rate after parental leave is calculated by counting the number of people who have returned to work at the time of the parental leave user's return.

Category		Unit	2020	2021	2022
Number of parental leave users	Subtotal	Persons	16	26	17
	Men	Persons	5	17	8
	Women	Persons	11	9	9
Employees subject to return after parental leave	Subtotal	Persons	18	21	19
	Men	Persons	6	13	10
	Women	Persons	12	8	9
Returnees to work after parental leave	Subtotal	Persons	17	19	19
	Men	Persons	5	11	10
	Women	Persons	12	8	9
Percentage of returning to work after parental leave ²⁾	Subtotal	%	94	90	100
	Men	%	83	85	100
	Women	%	100	100	100
Number of employees working for more than 12 months after returning to work after parental leave	Subtotal	Persons	17	18	19
	Men	Persons	5	10	10
	Women	Persons	12	8	9
Percentage of work for more than 12 months after returning to work after parental leave	Subtotal	Persons	94	86	100
	Men	Persons	83	77	100
	Women	Persons	100	100	100

- 2) The rate of return to work after parental leave is calculated by calculating the number of persons returned by the user of parental leave at the time of return.



SOCIAL

Employee Training Performance

Category	Unit	2020	2021	2022	
Total number of employees participating in training ¹⁾	Subtotal	Persons	792	761	802
	Men	Persons	671	646	675
	Women	Persons	121	115	127
Total cost of training	Subtotal	KRW million	141	331	414
Total training time	Subtotal	Hours	18,321	24,421	24,810
Training cost per person ²⁾	Subtotal	KRW 1,000	177	434	517
Training time per person ²⁾	Subtotal	Hours	23	32	31
Number of online job training academy courses	-		1,324	1,324	2,550
Number of employees completing online job training academy courses	Persons		699	504	492

1) The total number of employees participating in training is calculated as the end of the period, not cumulative.

2) Training costs and training hours per person are calculated as total training costs and training hours divided by the number of full-time employees.

Employee Benefits

Category	Unit	2020	2021	2022	
Total benefit expenses	Total expenses ¹⁾	KRW 100 million	141.5	149.1	147.8
	Benefit expenses per person ²⁾	KRW/Person	17,867	19,592	18,423

1) Benefit expenses are presented in the notes to the consolidated financial statements under "Classification of expenses by nature Benefit expenses" in the notes to the consolidated financial statements.

2) Benefit expense per person is calculated as total benefit expenses divided by the number of permanent employees.

Performance Evaluation

Category	Unit	2020	2021	2022
Number of people subject to performance evaluation	Persons	786	785	785
Number of employees who received regular performance evaluations	Persons	786	785	785
Percentage of employees who received regular performance evaluations	%	100	100	100



SOCIAL

Labor Union Membership

Category	Unit	2020	2021	2022
Number of people eligible to join the union ¹⁾	Persons	811	788	833
Number of labor union members	Persons	247	262	299
Percentage of labor union membership	%	30	33	36
Number of Works Council meetings	Times	4	4	4
Number of Works Council agendas passed	Cases	17	15	15
Total amount of fines for violations of labor laws	KRW	0	0	0

1) Labor union eligibility: professional groups subject to collective agreement.

Employee Wages

Category	Unit	2020	2021	2022
Average base pay for men ¹⁾	KRW million	6.1	6.5	6.9
Average base pay for women ¹⁾	KRW million	5.3	5.6	6.0
Ratio ²⁾	%	0.9	0.9	0.9

1) Contract salary (monthly wages + travel expenses for Seollal and Chuseok holidays) / 12 months.

2) Ratio = Average for women/average for men.

Retirement Pensions

Category	Unit	2020	2021	2022	
Defined Benefit Retirement Pension	Number of subscribers	Persons	640	687	698
	Subscription amount (estimated amount)	KRW million	63,693	72,321	71,448
	Amount managed-consolidated (DB)	KRW million	4,821	9,411	13,873
Defined Contribution Retirement Pension	Number of subscribers	Persons	66	78	91
	Amount managed-separate (DC)	KRW million	4,385	5,721	6,689

Suppliers

Category	Unit	2020	2021	2022
Total number of suppliers	Sites	178	199	206
Number of new registered suppliers ¹⁾	Sites	-	22	26
Cost of purchasing from suppliers ²⁾	KRW 100 million	557	958	843
Total purchased amount from SMEs	KRW million	16,756	29,094	29,735

1) No new companies registered in the Open Procurement System in 2020.

2) Suppliers are calculated as companies that supply raw materials and inputs for our products.



SOCIAL

Supplier Communication

Category	Unit	2020	2021	2022
Number of win-win meetings held ¹⁾	Times	-	-	3

1) Not held in 2020–2021 due to COVID-19.

Comprehensive Evaluation of Suppliers

Category	Unit	2020	2021	2022
Number of suppliers evaluated	Sites	23	22	23
Number of excellent-rated suppliers ¹⁾	Sites	14	18	23

1) B or higher rating in regular supplier evaluations.

Occupational Accidents

Category	Unit	2020	2021	2022	
Number of occupational accidents	Total	Cases	0	0	0
Number of serious accidents	Employees	Cases	0	0	0
	Suppliers	Cases	0	0	0
Occupational accident rate (Number of accident victims/workers) * 100	Employees	%	0	0	0
	Suppliers	%	0	0	0
LTIR (Lost Time Incident Rate) Lost time incidents / total hours worked * 1,000,000	Employees	-	0	0	0
	Suppliers	-	0	0	0

Category	Unit	2020	2021	2022	
OIFR (Occupational Illness Frequency Rate) Number of workers with occupational illnesses / total hours worked *1,000,000	Employees	-	0	0	0
	Suppliers	-	0	0	0
TRIR (Total recordable incident rate) Number of recordable incidents/ total hours worked *1,000,000	Employees	-	0	0	0
	Suppliers	-	0	0	0
Number of deaths	Employees	Cases	0	0	0
	Suppliers	Cases	0	0	0
Number of serious injuries	Employees	Cases	0	0	0
	Suppliers	Cases	0	0	0
Number of minor injuries	Employees	Cases	0	0	0
	Suppliers	Cases	0	0	0
Number of accident victims	Employees	Persons	0	0	0
	Suppliers	Persons	0	0	0



SOCIAL

Health and Safety Management System

Category	Unit	2020	2021	2022
Health and safety management system (ISO 45001) certification rate	%	100	100	100
Number of certified business sites	Sites	1	1	1
Number of business sites subject to certification	Sites	1	1	1
Number of OHSAS 18001 (or KOSHA 18001) certified sites	Sites	0	0	0

Employee Health Care

Category	Unit	2020	2021	2022
Health check-ups	Total	1,106	1,125	1,133
	Employees	752	729	756
	Spouses	354	379	377

Occupational Safety Training

Category	Unit	2020	2021	2022
Occupational safety training time	Hours	17,880	17,872	18,200
Number of employees involved in occupational safety training ¹⁾	Persons	765	768	783

1) Excludes absenteeism (vacation, etc.) and those working overseas.

Corporate Social Responsibility Activities

Category	Unit	2020	2021	2022	
Contributions	Total contributions	KRW 68.5	64.3	59.2	
	Employee contributions	million	68.5	64.3	59.2
Employee outreach	Total time of volunteer service	Hours	0	0	1,123
	Volunteer service hours per person ¹⁾		0	0	5
	Participation rate	%	0	0	30
Corporate social responsibility activities	Number of programs	-	13	10	15
	Total number of participants	Persons	0	0	224
	Total beneficiaries		0	0	1,335

1) 2020 and 2021 not conducted due to COVID-19.

2) Volunteer hours per person = Total volunteer hours / Participants.

Customer Satisfaction Levels

Category	Unit	2020	2021	2022
Customer satisfaction survey results ¹⁾	Points	Not conducted	76	Not conducted ²⁾

1) Customer satisfaction survey results refer to the percentage of satisfied customers compared to the total number of customers who responded to the survey.

2) In 2021, a customer satisfaction survey was conducted in Korea and Europe, and in 2022, it was replaced with a survey in Asia (India/Vietnam/Japan) due to the opening and operation of a new service center in Asia.



SOCIAL

Voice of customers

Category	Unit	2020	2021	2022
Number of customer complaints received ¹⁾	Cases	30	38	40
Number of customer complaints handled ¹⁾	Cases	30	38	40
Percentage of resolved customer complaints ¹⁾	%	100	100	100
Percentage of timely action on user dissatisfaction ²⁾	%	89.5	89.7	88

1) Total VOCs received in Korea (defects, need for improvement, other).

2) Percentage of action taken within 30 days of defect-related VOCs in Korea.

Labor-Management Communication

Category	Unit	2020	2021	2022
Number of grievances received from employees	Cases	2	3	0
Number of employee grievances addressed	Cases	2	3	0
Percentage of employee grievances addressed	%	100	100	0



GOVERNANCE

Governance data is based on the Pangyo office, and some data is based on the **Hanwha Vision** Audit Report (December 2022) for consistency with public reports. We plan to expand the reporting scope to include data from major overseas subsidiaries in order to improve the completeness of the data in the future.

Board Operation

Category		Unit	2020	2021	2022
Board composition	Inside director	Persons	3	3	3
Number of board meetings	Number of meetings	Times	9	10	17
Board attendance	Average attendance	%	100	100	58.8
	Inside director attendance rate	%	100	100	58.8
Average tenure of directors	Inside director	Years	1.33	1.75	2.58
Board agendas	Resolutions	Cases	17	17	33
	Reports	Cases	4	4	4

Board Remuneration

Category		Unit	2020	2021	2022
CEO pay	Total CEO pay	KRW million	1,095	2,284	3,618
Registered directors	Number of directors	Persons	3	3	3
	Total remuneration	KRW million	1,639	2,831	5,008
	Average remuneration per person	KRW million	546	944	1,669

Internal Compliance Inspections

Category		Unit	2020	2021	2022
Internal ethics and compliance inspections	Number of internal ethics and compliance inspections	Cases	5	3	1
	Number of internal violations of ethics and compliance	Cases	3	0	0
Addressing employee grievances	Grievance report	Cases	2	3	0
	Number of grievances addressed	Cases	2	3	0
Compliance by type Reports ¹⁾	Sexual harassment	Cases	0	0	0
	Anti-corruption	Cases	0	0	0
	Unfair trade	Cases	0	0	0
	Noncompliance with the Code of Ethics	Cases	1	0	0
	Other	Cases	0	1	0

¹⁾ For compliance by type, all 2022 baseline action processing is complete.



GOVERNANCE

Internal Compliance Inspections

Category		Unit	2020	2021	2022
Legal and regulatory compliance	Number of compliance violations	Cases	0	0	0
	Number of lawsuits filed	Cases	1	0	1
	Number of lawsuits completed	Cases	0	0	2
	Number of non-monetary sanctions	Cases	0	0	0
	Amount of fines	KRW million	0	0	0
Compliance with fair trade	Number of fair trade violations	Cases	0	0	0
	Amount of fines	KRW million	0	0	0

Ethics and Compliance Training

Category		Unit	2020	2021	2022
Basic compliance training for all employees	Participants	Persons	795	704	712
	Training time per person ¹⁾	hr/Persons	30 minutes	30 minutes	30 minutes

Category		Unit	2020	2021	2022
Compliance training for executives and managerial positions	Participants	Persons	51	60	71
	Training time per person ²⁾	hr/Persons	60 minutes	45 minutes	60 minutes
Sexual harassment and workplace harassment prevention training	Participants	Persons	829	834	827
	Training time per person ³⁾	hr/Persons	24 minutes	30 minutes	34 minutes
Customized training	Participants	Persons	720	758	781
	Training time per person ⁴⁾	hr/Persons	60 minutes	60 minutes	40 minutes
Internal compliance-related reports	Number of corruption reports	Cases	0	0	0
	Percentage of corrective action on reported corruption cases	%	0	0	0

1) Training is conducted under two themes (compliance basics, fair trade, anti-corruption, etc.), and each theme is reflected based on the video length of 15 minutes.

2) Training is conducted on 2-3 themes, and each theme is reflected based on a video length of 20-30 minutes.

3) Sexual harassment prevention/workplace bullying is reflected based on the total length of the training video.

4) When conducting training, students must attend at least 2 out of 10 themes, and each theme is reflected based on a video length of 20 to 30 minutes.



GOVERNANCE

Information Protection Violations

Category	Unit	2020	2021	2022	
Number of information protection violations or cybersecurity incidents	Cases	0	0	0	
Number of customers affected by data breaches, theft, and losses	Persons	0	0	0	
Number of improvement measures based on internal information protection level inspections	Cases	1	1	1	
Number of personal information leaks	Cases	0	0	0	
Number of cases where personal information was used for secondary purposes	Cases	0	0	0	
Total monetary losses, such as fines or penalties, paid as a result of a breach of privacy or cybersecurity incident	KRW million	0	0	0	
Number of information protection personnel	Persons	2	2	2	
Information protection of suppliers	Number of suppliers' information protection inspections	Cases	1	1	1

Category	Unit	2020	2021	2022	
Information protection training	Training time ¹⁾	Hours	-	-	-
Personal information protection	Training time	Hours	1	1	1
	Participants ²⁾	Persons	779	724	804

1) Information protection training is always conducted through internal bulletin boards when security-related issues (news) arise.

2) 2019: Offline training, 2020-2022 - Online training due to COVID-19.







APPENDIX

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UN SDGS COMMITMENT

Hanwha Vision's is fulfilling its responsibilities to the global society through various activities linked to the UN Sustainable Development Goals (UN SDGs).

UN SDGS GOALS	Major Initiatives of Hanwha Vision's
 <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"> • Donate food, daily necessities, etc. to vulnerable groups • Delivery of side dishes to disabled families at home • Operating nutritious meals for all seasons and a 70th or 80th birthday party program for seniors living alone
 <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"> • Monitoring wastewater discharge water quality and managing discharge below legal standards • Improvement of facilities to minimize the generation of environmental pollutants in the process and management of emissions below legal standards • Conducting safety training for hazardous chemicals and purchasing protective equipment and materials to respond to accidents
 <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> <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"> • Operating a recruitment-linked internship system • Development of specialized academies • Support for separate educational expenses for children with disabilities
 <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"> • Implementation of various leave systems for pregnancy/childcare/infertility/family care, etc. • Operation of reduced working hours during pregnancy/childcare/family care







UN SDGS COMMITMENT

UN SDGS GOALS	Major Initiatives of Hanwha Vision's
 <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"> • Implementation of in-house conservation activities such as water conservation education and reducing water pressure • Utilization of probiotics and improvement of biochemical treatment process in water treatment process
 <p>7.3 By 2030, double the global rate of improvement in energy efficiency</p>	<ul style="list-style-type: none"> • Installation of a solar power generation system with a capacity of 20.5 kW on the roof of the Pangyo R&D Research Center. • Installation of solar panels on the roofs of Vietnamese subsidiary offices, workshops, canteens, and parking lots.
 <p>8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors</p> <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"> • Development and commercialization of various solutions based on vision technology through the head office R&D center (R&D Center) • Acquired quality management system (ISO 9001:2015) certification • Operating a roadmap for promoting shared growth • Operating the Win-Win Cooperation Council and holding regular general meetings, management briefing sessions, etc.
 <p>9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities</p>	<ul style="list-style-type: none"> • Acquired international certification standard ISO 14001 certification • Development of energy saving technology (SolidEDGE camera, Edge AI, low light)



UN SDGS COMMITMENT

UN SDGS GOALS	Major Initiatives of Hanwha Vision's
 <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"> • Provide various programs to help foreign employees and their families adapt • Implementation of welfare system to support equal employment between men and women and work–family balance
 <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> <p>12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse</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"> • Establishment of processes and regulations required in the ISO 14001 certification process • Operation of environmental management system through internal audit and third party verification process • Establishment of life cycle assessment (LCA) process • 2023 Hanwha Vision Sustainability Report published
 <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"> • Conduct environmental impact assessment every year • Constant monitoring of energy usage through the Comprehensive Disaster Prevention Center • Prevent unnecessary power waste by reducing the load on energy–consuming equipment and reducing in–house power usage
 <p>16.5 Substantially reduce corruption and bribery in all their forms</p>	<ul style="list-style-type: none"> • Conduct periodic monitoring of the effectiveness and operation of the company's internal accounting management system by appointing an external auditor • Conduct compliance control effectiveness evaluation • CP (Compliance Program) operation • Operating a reporting channel for compliance violations, such as unfair business practices and unfair actions using one's position



STAKEHOLDER ENGAGEMENT

Hanwha Vision's actively communicates with major stakeholders (customers, employees, local communities, partner companies) directly or indirectly linked to management activities through various communication channels and strives to reflect the voices of stakeholders throughout the management.

Stakeholders	Interest	Communication Channels
Customer	<ul style="list-style-type: none"> • Product, solution and service quality • Providing accurate product information • Safe product use • Transparent communication • Environmental impact of value chain • Latest technologies and trends 	<ul style="list-style-type: none"> • Customer visit meetings and technical support • Sales Channel – Customer satisfaction survey • Customer VOC and Contact Center • Hanwha Vision's online website and social media channels
Employees	<ul style="list-style-type: none"> • Development of employee capabilities • Employment and welfare benefits • Education and career development • Sound labor–management relations • Executive and employee human rights and diversity 	<ul style="list-style-type: none"> • GWP (Great Work Place) Leader • Executive and employee meetings, town hall meetings • Organizational culture diagnostic survey • Labor union, labor–management council • Complaints and reporting channels (Smart Complaint Handling Center, Psychological Counseling Center) • GWP (Great Work Place) Leader • Executive and employee meetings, town hall meetings • Organizational culture diagnostic survey • Labor union, labor–management council • Complaints and reporting channels (Smart Complaint Handling Center, Psychological Counseling Center)
Local community	<ul style="list-style-type: none"> • community development • Social contribution activities such as donations and volunteering • Environmental protection near the workplace • Contributions to UN SDGs 	<ul style="list-style-type: none"> • Hanwha Vision's Online Home Page and Social Media Channel • Employee volunteer group • Community Service Agencies and Associations • Various social contribution activities
Suppliers	<ul style="list-style-type: none"> • Creation of fair trade and win–win cooperation ecosystem 	<ul style="list-style-type: none"> • Operation of consultative bodies and meetings with partner companies (commercial associations, service–designated branch exchange meetings) • Operate reporting channels related to partner company VOC, fair trade, and corruption (Cyber Sinmungo channel operation (in purchasing OPS system))



GRI CONTENT INDEX

GRI Standards	Category	Disclosure No.	Disclosure Name	Page	Note
Universal Standards					
GRI 1: Foundation 2021	Statement of use		Hanwha Vision's reported according to the GRI standard for the reporting period (January 1, 2022 to December 31, 2022).		
	GRI 1 used		GRI 1: FOUNDATION 2021		
	Applicable GRI Sector Standard		N/A		
GRI 2: General Disclosures 2021	The organization and its reporting practices	2-1	Organizational details	6	
		2-2	Entities included in the organization's sustainability reporting	4	
		2-3	Reporting period, frequency and contact point	4	
		2-4	Restatements of information	-	[Not applicable] ¹⁾
		2-5	External assurance	89	
	Activities and workers	2-6	Activities, value chain and other business relationships	6, 8	
		2-7	Employees	64-65	
		2-8	Workers who are not employees	64-65	
	Governance	2-9	Governance structure and composition	50	
		2-10	Nomination and selection of the highest governance body	50	
		2-11	Chair of the highest governance body	50	
		2-12	Role of the highest governance body in overseeing the management of impacts	50	
		2-13	Delegation of responsibility for managing impacts	50	
		2-14	Role of the highest governance body in sustainability reporting	50	
		2-15	Conflicts of interest	80	
		2-16	Communication of critical concerns	80	
		2-17	Collective knowledge of the highest governance body	50	
		2-18	Evaluation of the performance of the highest governance body	-	[Confidential constrains] ²⁾
		2-19	Remuneration policies	38	
		2-20	Process to determine remuneration	38	
		2-21	Annual total compensation ratio	-	[Confidential constrains] ²⁾

1) [Not applicable] As this report is the first publication, it is not applicable.

2) [Confidential constraints] This information is not disclosed to the public due to management judgment.



Gri standards	Category	Disclosure no.	Disclosure name	Page	Note
GRI 2: General Disclosures 2021	Strategy, policies and practices	2-22	Statement on sustainable development strategy	5	
		2-23	Policy commitments	36, 51, 55	
		2-24	Embedding policy commitments	32	
		2-25	Processes to remediate negative impacts	33	
		2-26	Mechanisms for seeking advice and raising concerns	36, 46	
		2-27	Compliance with laws and regulations	51-54	
	2-28	Membership associations	-	[Confidential constrains] ¹⁾	
Stakeholder engagement	2-29	Approach to stakeholder engagement	80		

Material Topics

GRI 3: Material Topics 2021	Disclosures on material topics	3-1	Process to determine material topics	20	
		3-2	List of material topics	21	
		3-3	Management of material topics	22-23	

Economic Performance (GRI 200)

GRI 201: Economic Performance 2016	Economic Performance	201-1	Direct economic value generated and distributed	59	
		201-2	Financial implications and other risks and opportunities due to climate change	-	[Information unavailable/incomplete] ²⁾
		201-3	Defined benefit plan obligations and other retirement plans	69	
GRI 202: Market Presence 2016	Market Presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	-	[Confidential constrains] ¹⁾
		202-2	Proportion of senior management hired from the local community	-	[Not applicable] ³⁾
GRI 203: Indirect Economic Impacts 2016	Indirect Economic Impacts	203-1	Infrastructure investments and services supported	48, 70-71	
		203-2	Significant indirect economic impacts	48, 77	
GRI 204: Procurement Practices 2016	Procurement Practices	204-1	Proportion of spending on local suppliers	59	
GRI 205: Anti-corruption 2016	Anti-corruption	205-1	Operations assessed for risks related to corruption	52-54	
		205-2	Communication and training about anti-corruption policies and procedures	52-54	
		205-3	Confirmed incidents of corruption and actions taken	71	
GRI 206: Anti-competitive Behavior 2016	Anti-competitive Behavior	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	71	

1) [Confidential constraints] This information is not disclosed to the public due to management judgment.

2) [Information unavailable/incomplete] There is insufficient information about the information.

3) [Not applicable] No locally hired senior management



GRI Standards	Category	Disclosure No.	Disclosure Name	Page	Note
Environmental Performance (GRI 300)					
GRI 301: Materials 2016	Materials	301-1	Materials used by weight or volume	-	[Confidential constrains] ¹⁾
		301-2	Recycled input materials used	-	[Confidential constrains] ¹⁾
		301-3	Reclaimed products and their packaging materials	-	[Confidential constrains] ¹⁾
GRI 302: Energy 2016	Energy	302-1	Energy consumption within the organization	27, 61	
		302-2	Energy consumption outside of the organization	27, 61	
		302-3	Energy intensity	-	[Information unavailable/incomplete] ¹⁾
		302-4	Reduction of energy consumption	61	
		302-5	Reductions in energy requirements of products and services	61	
GRI 303: Water and Effluents 2018	Water and Effluent	303-1	Interactions with water as a shared resource	28, 62	
		303-2	Management of water discharge-related impacts	62	
		303-3	Water withdrawal	-	[Information unavailable/incomplete] ²⁾
		303-4	Water discharge	62	
		303-5	Water consumption	62	
GRI 304: Biodiversity 2016	Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	-	[Not applicable] ³⁾
		304-2	Significant impacts of activities, products and services on biodiversity	-	[Not applicable] ³⁾
		304-3	Habitats protected or restored	-	[Not applicable] ³⁾
		304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	-	[Not applicable] ³⁾
GRI 305: Emissions 2016	Emissions	305-1	Direct (Scope 1) GHG emissions	61	
		305-2	Energy indirect (Scope 2) GHG emissions	61	
		305-3	Other indirect (Scope 3) GHG emissions	-	[Information unavailable/incomplete] ¹⁾
		305-4	GHG emissions intensity	-	[Information unavailable/incomplete] ¹⁾
		305-5	Reduction of GHG emissions	27	
		305-6	Emissions of ozone-depleting substances (ODS)	-	[Not applicable] ³⁾
		305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant	61	
GRI 306: Waste 2020	Effluents and Waste	306-1	Water discharge by quality and destination	28, 62	
		306-2	Waste by type and disposal method	28	
		306-3	Significant spills	28, 62	
		306-4	Transport of hazardous waste	28, 62	
		306-5	Water bodies affected by water discharges and/or runoff	28, 62	

1) [Information unavailable/incomplete] Preparing measurement process for the information

2) [Information unavailable/incomplete] Water intake amount not managed

3) [Not applicable] This information is not an internal management indicator.



Gri standards	Category	Disclosure no.	Disclosure name	Page	Note
GRI 308: Supplier Environmental Assessment 2016	Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria	43	
		308-2	Negative environmental impacts in the supply chain and actions taken	43	
Social Performance (GRI 400)					
GRI 401: Employment 2016	Employment	401-1	New employee hires and employee turnover	41, 66	
		401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	38	
		401-3	Parental leave	38, 66	
GRI 402: Labor Management Relations 2016	Labor/Management Relations	402-1	Minimum notice periods regarding operational changes	-	[Not applicable] ¹⁾
GRI 403: Occupational Health and Safety 2018	Occupational Health and Safety	403-1	Occupational health and safety management system	32	
		403-2	Hazard identification, risk assessment, and incident investigation	33	
		403-3	Occupational health services	33	
		403-4	Worker participation, consultation, and communication on occupational health and safety	33, 34	
		403-5	Worker training on occupational health and safety	34	
		403-6	Promotion of worker health	33, 34	
		403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	33, 34	
		403-8	Workers covered by an occupational health and safety management system	33, 34	
		403-9	Work-related injuries	70	
		403-10	Work-related ill health	70	
GRI 404: Training and Education 2016	Training and Education	404-1	Average hours of training per year per employee	70	
		404-2	Programs for upgrading employee skills and transition assistance programs	39-40	
		404-3	Percentage of employees receiving regular performance and career development reviews	38, 68	
GRI 405: Diversity and Equal Opportunity 2016	Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	38	
		405-2	Ratio of basic salary and remuneration of women to men	38	
GRI 406: Non-discrimination 2016	Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	72	
GRI 407: Freedom of Association and Collective Bargaining 2016	Freedom of Association and Collective Bargaining	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	36	

1) [Not applicable] We do not currently have relevant company regulations



Gri standards	Category	Disclosure no.	Disclosure name	Page	Note
GRI 408: Child Labor 2016	Child Labor	408-1	Operations and suppliers at significant risk for incidents of child labor	36	
GRI 409: Forced or Compulsory Labor 2016	Forced or Compulsory Labor	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	36	
GRI 410: Security Practices 2016	Security Practices	410-1	Security personnel trained in human rights policies or procedures	-	[Information unavailable/incomplete] ¹⁾
GRI 411: Rights of Indigenous Peoples 2016	Rights of Indigenous Peoples	411-1	Incidents of violations involving rights of indigenous peoples	-	[Not applicable] ²⁾
GRI 413: Local Communities 2016	Local Communities	413-1	Operations with local community engagement, impact assessments, and development programs	47-48	
		413-2	Operations with significant actual and potential negative impacts on local communities	-	[Not applicable] ³⁾
GRI 414: Supplier Social Assessment 2016	Supplier Social Assessment	414-1	New suppliers that were screened using social criteria	43	
		414-2	Negative social impacts in the supply chain and actions taken	43	
GRI 416: Customer Health and Safety 2016	Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	45-46	
		416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	63	
GRI 418: Customer Privacy 2016	Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	75	

1) [Information unavailable/incomplete] There is insufficient information about the information.

2) [Not applicable] This information is not an internal management indicator.

3) [Not applicable] There is no business related to this information.



SASB INDEX

Sector: Resource Transformation – Electrical & Electronic Equipment

Topic	Code	Accounting metric	Page
Energy Management	RT-EE-130a.1	(1) Total energy consumed	114.5TJ
		(2) percentage grid electricity	N/A
		(3) percentage renewable	8.2%
Hazardous Waste Management	RT-EE-150a.1	Amount of hazardous waste generated, percentage recycled	680.5Ton, 41.2%
	RT-EE-150a.2	Number and aggregate quantity of reportable spills, quantity recovered	N/A
Product Safety	RT-EE-250a.1	Number of recalls issued, total units recalled	40 cases (total number of customer complaints received)
	RT-EE-250a.2	Total amount of monetary losses as a result of legal proceedings associated with product safety	N/A
Product Lifecycle Management	RT-EE-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances	This indicator is not an internal management indicator.
	RT-EE-410a.2	Percentage of eligible products, by revenue, certified to an energy efficiency certification	This indicator is not an internal management indicator.
	RT-EE-410.3	Revenue from renewable energy-related and energy efficiency-related products	N/A
Materials Sourcing	RT-EE-440a.1	Description of the management of risks associated with the use of critical materials	Refer to pages 28–29 of this report.
Business Ethics	RT-EE-510a.1	(1) corruption and bribery	0 cases
		(2) anti-competitive behaviour	Refer to pages 51–54 of this report.
	RT-EE-510a.2	Total amount of monetary losses as a result of legal proceedings associated with bribery or corruption	0 (KRW)
	RT-EE-510a.3	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behaviour regulation	0 (KRW)



Sector: Resource Transformation — Electrical & Electronic Equipment

Topic	Code	Accounting metric	Page
Environmental Footprint of Hardware Infrastructure	TC-SI-130a.2	(1) Total water withdrawn	N/A
	TC-SI-130a.2	(2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	N/A
	TC-SI-130a.3	Discussion of the integration of environmental considerations into strategic planning for data centre needs	N/A
Data Privacy & Freedom of Expression	TC-SI-220a.1	Description of policies and practices relating to behavioural advertising and user privacy	Refer to pages 55–56 of this report.
	TC-SI-220a.2	Number of users whose information is used for secondary purposes	0 person
	TC-SI-220a.3	Total amount of monetary losses as a result of legal proceedings associated with user privacy	0 (KRW)
		(1) Number of law enforcement requests for user information	This indicator is not an internal management indicator.
	TC-SI-220a.4	(2) number of users whose information was requested	This indicator is not an internal management indicator.
		(3) List of countries where core products or services are subject to government-required monitoring, blocking, content filtering, or censoring	This indicator is not an internal management indicator.
		(1) Number of data breaches	0 cases
Data Security	TC-SI-230a.1	(2) percentage involving personally identifiable information (PII)	This indicator is not an internal management indicator.
		(3) number of users affected	0 person
	TC-SI-330a.1	(1) Percentage of employees that are foreign nationals and located offshore	N/A
Recruiting & Managing a Global, Diverse & Skilled Workforce	TC-SI-330a.2	Employee engagement as a percentage	This indicator is not an internal management indicator.
	TC-SI-330a.3	Percentage of gender and racial/ethnic group representation for (1) management, (2) technical staff, and (3) all other employees	Refer to pages 64–65 of this report.
Intellectual Property Protection & Competitive Behaviour	TC-SI-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behaviour regulations	0 (KRW)
Managing Systemic Risks from Technology Disruptions	TC-SI-550a.1	Number of (1) performance issues and (2) service disruptions; (3) total customer downtime	N/A
	TC-SI-550a.2	Description of business continuity risks related to disruptions of operations	N/A



TCFD INDEX

	Category	Page
Governance	a) Describe the board's over-sight of climate-related risks and opportunities.	27
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	
Strategy	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	27-30
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	
Risk Management	a) Describe the organization's processes for identifying and assessing climate-related risks.	27-30
	b) Describe the organization's processes for managing climate-related risks.	
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	
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.	27-28, 61
	b) Disclose Scope 1 (direct emissions), Scope 2 (indirect emissions), and Scope 3 (miscellaneous indirect scope) greenhouse gas (GHG) emissions, and the related risks.	
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against target.	



INDEPENDENT ASSURANCE STATEMENT

To the management of Hanwha Vision CO., LTD.

We performed a limited assurance engagement on the following sustainability information of Sustainability Report 2023 of Hanwha Vision CO., LTD. (the "Company") for the year ended December 31, 2022 (the "Report").

Scope and Subject matter information

For the year ended December 31, 2022, we provide a limited assurance on the following:

The ESG information (the "Subject matter information"), stated on 'ESG FACT BOOK' of the Report Appendix, is prepared in accordance with the Company's 'Reporting Framework' described on the 'ABOUT THIS REPORT'.

We read the other information included in the Report and considered whether it is consistent with the Subject matter information. We considered the implications for our report in the case that we became aware of any apparent misstatements or material inconsistencies with the Subject matter information. Our responsibilities do not extend to any other information.

Criteria

The Company prepared the Subject matter information in accordance with Global Reporting Initiative (GRI) Standards 2021 and Task Force on Climate-related Financial Disclosures (TCFD). The report contains indicators set by the Sustainability Accounting Standards Board (SASB) and UN Sustainable Development Goals (SDGs) indicators.

Inherent limitations

Non-financial information is subject to more inherent limitations than financial information, given the characteristics of the subject matter and the methods used for determining such information. Qualitative interpretations of relevance, materiality and the accuracy of data are subject to individual assumptions and judgments.

- We did not attend any stakeholder engagement activities. Therefore, our conclusion is based on our discussions with management and staff of the Company and our review of selected documents provided to us by the Company.
- The scope of our work was restricted to performance for the year ended December 31, 2022, only, as set out in the scope and subject matter section above. Information for the year ended December 31, 2021, and earlier periods have not been subject to assurance by us.

Responsibility of the management of the Company

Company responsibility is for the following :

- The management of the Company is responsible for selecting and establishing suitable criteria for preparing the Subject matter information and the preparation of the Subject matter information in accordance with the Criteria.

Our responsibility

Our responsibility is for the following:

- Determining and performing the procedures to provide a limited assurance whether a material matter has come to our attention to cause us to believe the Subject matter information is materially misstated.
- Independently expressing a conclusion in accordance with provided evidence by the Company.



INDEPENDENT ASSURANCE STATEMENT

Because we engaged to form an independent conclusion on the Subject matter information prepared by the Company, our involvement may compromise our independence and is therefore not permitted.

This report, including the conclusion, has been prepared for the Company's management as a body, to assist the management in reporting on the Company's sustainability performance and activities. We do not accept or assume responsibility to anyone other than the Company's management as a body and the Company for our work or this report save where terms are expressly agreed and with our prior consent in writing.

Our independence and quality control

We have complied with the independence and other ethical requirements of the code of ethics issued by the Ethics Standards Board of the Korean Institute of Certified Public Accountant. We apply International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

The standard of assurance engagement

We performed a limited assurance engagement in accordance with Assurance Engagement other than Audits and Reviews of Historical Financial Information issued by the Korean Institute of Certified Public Accountants (International Standard on Assurance Engagement 3000 (Revised) as adopted by the Republic of Korea).

Summary of the assurance work we performed

A limited assurance engagement is less in scope than a reasonable assurance engagement. Consequently, the nature, timing, and extent of procedures for gathering sufficient, appropriate evidence are deliberately limited relative to a reasonable assurance engagement.

Our work includes the following activities:

1. Interviews with the Company's personnel responsible for internal reporting and data collection
2. Review on the samples of the Company's internal documents related to output from the risk assessment process, sustainability-related policies and standards, the sustainability materiality assessment matrix, and other documents from stakeholder-engaged activities.
3. Understanding the Company's design and implementation of key processes and controls for managing and reporting the Subject matter information
4. Limited testing, through inquiry and analytical review procedures, of the preparation and collation of the Company's Subject matter information

Conclusion

Based on the procedures we performed as described under the "Summary of the assurance work we performed" and the evidence we have been provided by the Company, nothing has come to our attention that causes us to believe that the Company's Subject matter information in the Report for the year ended December 31, 2022, is not prepared, in all material respects, in accordance with the Company's reporting Criteria.

October 31, 2023

Shinhan Accounting Corporation

Seoul, Korea

Jong-Man Choi

Chairman, Board of directors

