

Hanwha Engine
Sustainability Report
2026

About This Report

Purpose of Publication

This is the thirteenth Sustainability Report published by Hanwha Engine, covering the full range of the company’s ESG (Environmental, Social, and Governance) management activities. Through the regular publication of its Sustainability Report, Hanwha Engine seeks to transparently disclose its ESG performance and to actively reflect the expectations of its stakeholders. We pledge to continue issuing the Sustainability Report on a regular basis and to communicate ever more actively with our stakeholders.

Reporting Standards

This report has been prepared with reference to the GRI Standards (2021), the international standard for sustainability reporting. It has also been developed with reference to ISO 26000, the international standard for social responsibility.

Reporting Period and Scope

This report primarily covers Hanwha Engine’s ESG management activities and key achievements from January 1, 2025 to December 31, 2025. To allow readers to identify trends, quantitative results for the most recent three years are included, and selected results from the first half of 2026 are also reflected. The reporting boundary is Hanwha Engine’s domestic business site, accounting for 100% of revenue and production volume.

Report Assurance

To ensure the appropriateness of the reporting process and enhance the reliability of the disclosed information, this report was assured by an independent third-party organization. Detailed assurance results can be found in the Assurance Statement provided in the Appendix.



Cover story

Driven by a relentless spirit of creativity and challenge, Hanwha Engine continues to grow into a leading global company at the center of the world stage.

Report Contact Information

Department : ESG Office
Contact : 055-260-6101
Email : jongmok.lee@hanwha.com

Website : www.hanwha-engine.com
Address : 67, Gongdan-ro, Seongsan-gu, Changwon-si,
Gyeongsangnam-do, Republic of Korea

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Interactive User Guide

The 2026 Hanwha Engine Sustainability Report is designed to enhance reader convenience and has been published as an Interactive PDF with navigation to related pages and other features.



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Introduction

CEO Message

Company Profile

Value Chain

CEO Message



Dear valued stakeholders,

Hanwha Engine delivered remarkable business performance in 2025 despite continued heightened geopolitical risks and concerns over a shifting newbuilding market. In particular, focused on competitive vessel segments such as LNG carriers and container ships, it secured a record KRW 2,196.5 billion (approx. KRW 2.20 trillion) in new orders.

Hanwha Engine, since 2024, has been driving forward—building on the synergy of Hanwha Group’s energy and shipbuilding value chain—toward its vision of becoming “a company that leads the way toward a safe, clean marine environment and the advancement of maritime transport” Amid the transition toward sustainable shipping, we will continue to innovate and contribute to the sustainable development and long-term value creation of the shipping and shipbuilding industries.

First, we will provide eco-friendly engine and propulsion-system solutions that substantially reduce carbon emissions across the entire vessel life cycle. We are actively responding to increasingly stringent global policies, such as IMO environmental regulations and EU measures, by steadily expanding stable supplies of LNG and methanol low-carbon fuel engines, while continuously expanding our technology development and production capacity for next-generation carbon-free fuel engines such as ammonia.

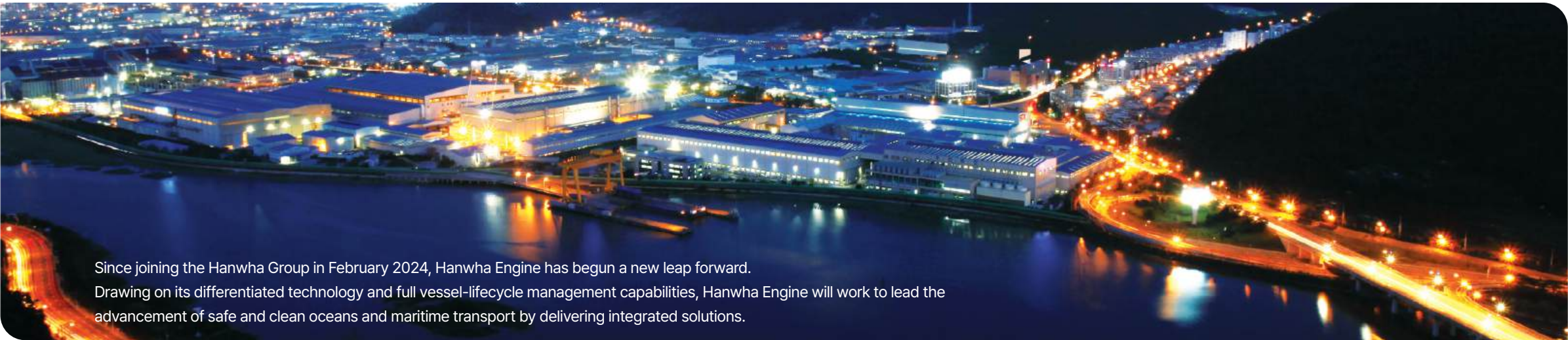
Second, we will create a safe and sustainable environment that every member can trust. By further strengthening the effectiveness of our safety, health, and environmental management system, we will proactively manage risk factors and do our utmost to prevent accidents and establish a strong safety culture. We will also build a sustainable supply-chain ecosystem through win-win cooperation programs with our partners, and foster a vibrant organizational culture through talent and human-rights management.

Third, centered on the ESG Committee under the Board of Directors, we will further strengthen the management and supervision of ESG matters. In accordance with domestic and international regulations and the shipbuilding-industry environment, we will select and systematically manage key ESG core issues. In addition, through transparent ESG information disclosure and communication, we will further solidify trust with our stakeholders.

We ask for your continued interest and encouragement on Hanwha Engine’s journey of sustainable development and responsible growth.

CEO **Jong-Seo Kim**

Company Profile



Since joining the Hanwha Group in February 2024, Hanwha Engine has begun a new leap forward. Drawing on its differentiated technology and full vessel-lifecycle management capabilities, Hanwha Engine will work to lead the advancement of safe and clean oceans and maritime transport by delivering integrated solutions.

Company Overview

Hanwha Engine provides services across the entire vessel lifecycle—from producing marine diesel engines, the ship-building industry’s core equipment, to engine-parts sales and after-sales service—and is one of the world’s leading marine engine manufacturers.

Amid tightening environmental regulations and decar-bonization, it became the world’s first to commercialize dual-fuel (LNG, methanol) low-speed engines, and will keep leading the eco-friendly marine engine market through the development of carbon-free vessel engines.

Company Name	Hanwha Engine Co., Ltd.
CEO	Jong-Seo Kim
Business Areas	Marine Engines, Aftermarket Business, ESS Business, Environmental Pollution Prevention Facilities
Business Operations	Head Office 67, Gongdan-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do, Republic of Korea Domestic Offices Geoje-si, Gyeongsangnam-do, Republic of Korea (Hanwha Ocean Site, Samsung Site) Overseas Branches China, Germany, Singapore, Greece



Established
December 31,
1999



Total Assets
1,695.7
KRW billion



Total Equity
556.1
KRW billion



Revenue
1,371
KRW billion

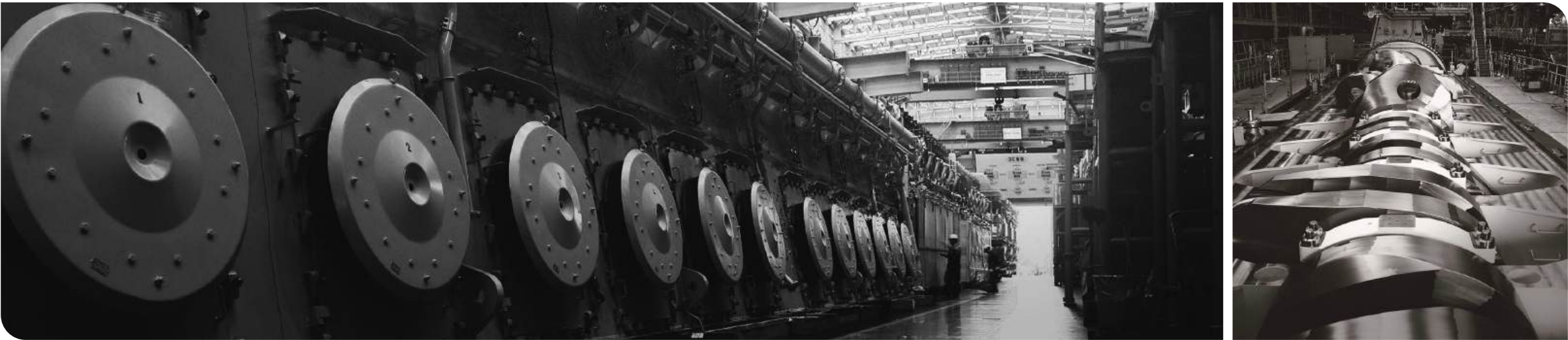


Employees
878
(As of Dec 31, 2025)



Credit Rating
Korea Investors
Service **BBB0 (P)**

Business Overview



Marine Engines

Hanwha Engine, as one of the leading global diesel engine manufacturers, operates a turnkey service system covering design, production, sales, and after-market services. Based on its abundant production experience, it proactively responds to diverse customer needs and strict environmental regulations.



AM Business (After Market, Engine parts and Paid Services)

Hanwha Engine’s aftermarket business includes genuine spare parts, technical services, and paid services that support safe and reliable vessel operation. Through engine data-based parts management, a global supply network, and integrated procurement programs, Hanwha Engine enhances operational efficiency and delivers lifecycle value to customers.



Eco-friendly equipment

DeI₂NO_x® SCR System, developed with Hanwha Engine’s proprietary technology, is an eco-friendly denitrification solution that reduces more than 90% of nitrogen oxides (NO_x) from engine exhaust by converting them into harmless water and nitrogen. The system complies with IMO Tier III requirements and helps customers respond to increasingly stringent environmental regulations.



ESS Business (Energy Storage System)

Leveraging its expertise in clean energy technologies, Hanwha Engine develops ESS and OPS solutions that support safe and efficient ship operation while contributing to low-carbon maritime infrastructure. These integrated energy solutions improve operational stability, optimize energy use, and support the transition toward carbon-neutral shipping and green ports.

▼
Company History

Birth of the Engine Business



Shipment of the 1st Engine

Business Expansion and
Production-System Buildout



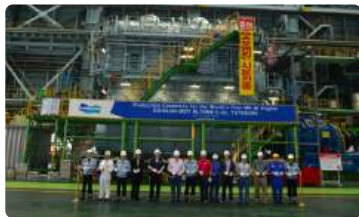
Completion of the Production-System Foundation

Large-Engine Technology
Innovation and Global Growth



Successful Test Run of the World's Largest Engine

Leading Eco-Friendly
Technology and Strengthening
Global Competitiveness



World's First Successful Dual-Fuel Engine Test Run

Beyond Engines,
Expansion into a Solutions Company



Launch of Hanwha Engine

1980s

- 1983
Korea Heavy Industries enters the engine business

1990s

- 1994
Samsung Heavy Industries enters the engine business
- 1999
Registered the establishment of HSD Engine Co., Ltd.

2000s

- 2000
Launched the HSD engine business
- 2002
Achieved 20 million horsepower in cumulative production
- 2003
Held the world's first official commissioning ceremony for a large ME engine
- 2004
Successfully completed the world's first official commissioning of the RT-flex 96C
- 2005
Renamed the company to Doosan Engine
- 2006
Cumulative production reaches 40M HP
- 2007
Received the USD 1 Billion Export Tower Award
- 2008
Achieved 50 million horsepower in cumulative production

2010s

- 2010
Produced the world's first eco-friendly, low-vibration premium engine
- 2011
Listed on KOSPI
- 2012
Achieved 80 million horsepower in cumulative production
- 2013
Developed the world's first low-temperature SCR for marine applications
Successfully commercialized the world's first dual-fuel low-speed marine engine
- 2014
Successfully completed the world's first commissioning of a dual-fuel low-speed marine engine
- 2017
Achieved 100 million horsepower in cumulative production of low-speed engines
- 2018
Renamed the company to HSD Engine Co., Ltd.
- 2019
Selected as a World-Class Product for marine NOx reduction systems

2020s

- 2022
Signed an MOU with Hanwha Ocean and Samsung Heavy Industries for the joint development of next-generation eco-friendly marine engines
- 2023
Secured the first order for a methanol dual-fuel engine
- 2024
Launched Hanwha Engine
- 2025
Acquired SEAM, Norway (a specialist in electric propulsion systems)
Produced the world's first engine with VCR applied for LNG carriers



Value Chain

Business Value Chain

Building on its growth in diesel engines, Hanwha Engine creates new value in the global market with the goal of “Powering the Future of Maritime” based on its advanced business management system and high-end engine technology. The ships equipped with Hanwha Engine’s top-quality electronic control engines also deliver sustainable value around the world. We will keep advancing toward healthier, more productive lives for all.



ESG Enabler

ESG Strategy

Stakeholder Engagement

Double Materiality Assessment



Hanwha Engine recognizes the diverse risks it may face in a rapidly changing global business environment and manages and responds to them proactively. In addition, recognizing the importance of open communication with stakeholders, we operate channels that enable stakeholders to actively participate. Through materiality assessment, we identify key sustainability issues and transparently report the related goals, performance, and plans, thereby building the foundation for sustainable growth.

ESG Strategy

For the strong implementation of ESG management, we have established an ESG mission called ‘Supporting Responsible and Sustainable Growth’ and are systematically promoting ESG management. Hanwha Engine has established and implemented three directions (strategic goals) and nine strategic tasks (priority tasks) such as respect for people, reliable operation, and value creation for stakeholders. Hanwha Engine will continue to create shared value for all stakeholders through the efforts of our employees.



Stakeholder Engagement

Major Stakeholders Identification & Engagement

Hanwha Engine defines individuals or organizations that have an impact on its business activities as its stakeholders. Based on the standard of identification of stakeholders proposed in ISO 26000, we set the six stakeholder groups: shareholders & investors, customers, suppliers, licensors, local community, and employees. We enhance stakeholder engagement by running various communication channels for each stakeholder group. Through these channels, we efficiently identify and respond to the concerns and expectations of the stakeholders to practice sustainability management with our stakeholders.

Hanwha Engine Stakeholders

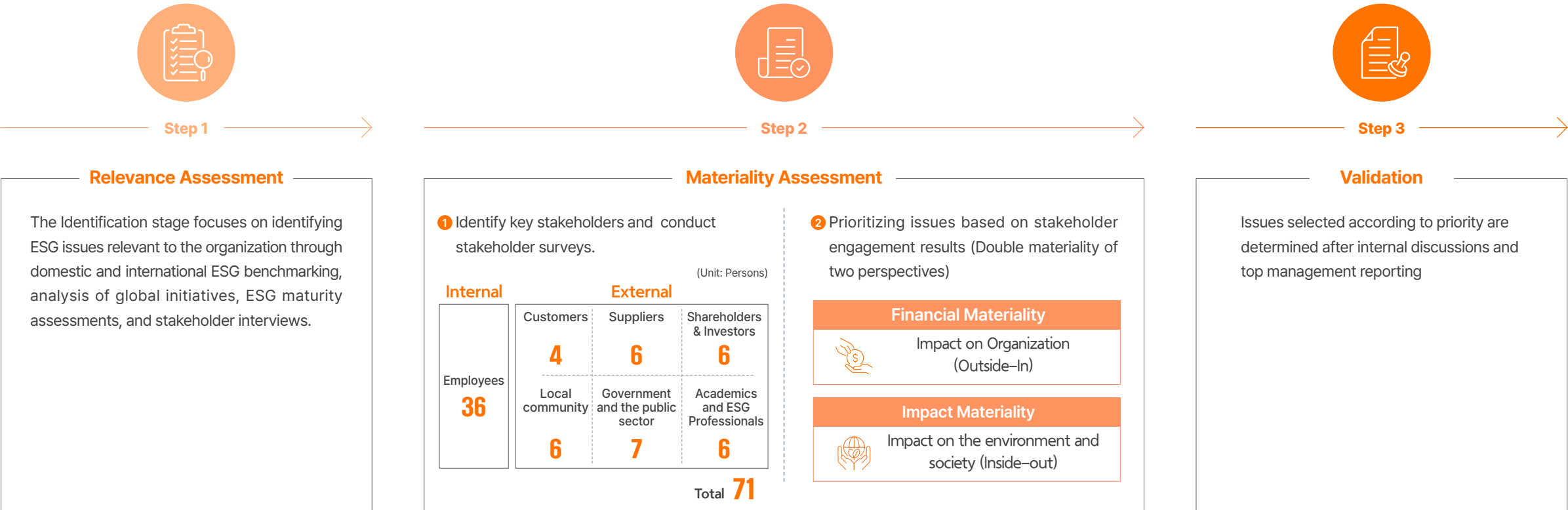
Stakeholders	Issues and Expectations	Communication Channels
Shareholders & Investors	Improved profitability, Securing financial soundness	Shareholders' meetings, Public disclosures, Investor information (website), IR meetings
Customers	High-quality engines, Differentiated and fast service & feedback, High-efficiency, environmentally friendly engines	Technology seminars, Technical newsletters, Customer satisfaction surveys
Suppliers	Stronger support for supplier competitiveness & capacity building, Fair trade, Shared growth	Quality forums, Supplier training, Supplier councils, Technical support for suppliers
Licensors	Joint technology development	Technology forums, Regular technology meetings
Local Community	Economic revitalization & job creation, Social contribution and volunteer activities	Local community councils, Sisterhood ties & community contribution activities
Employees	Shared growth in labor-management relations, Better internal communication, Talent development support, Fair appraisal & compensation, Work-life balance	Labor-management councils, Grievance handling system, Intranet, Internal communication programs, Employee satisfaction surveys

Double Materiality Assessment

Hanwha Engine conducted stakeholder engagement and materiality assessment based on GRI Standards and ISO 26000 to derive ESG material issues to be considered in its management activities. Based on the derived ESG material issues, the contents of this report were organized and reflected in the ESG strategy.

Assessment Process

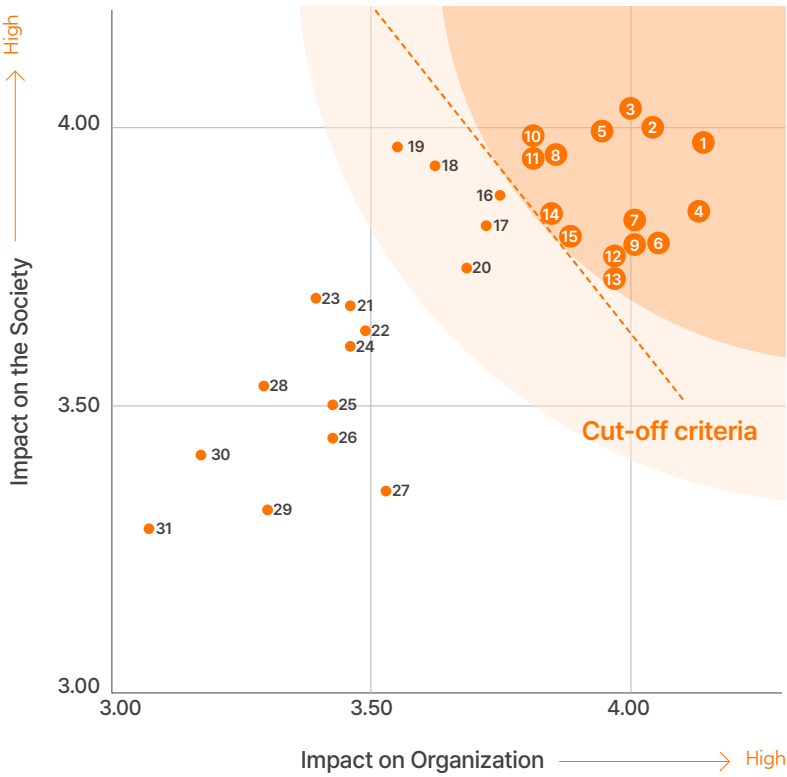
Hanwha Engine derived material issues by dividing them into three stages as follows through the Double Materiality Assessment to consider both the impact on the company’s financial performance and the impact on the environment and society.



▼
Materiality Assessment Results

Fifteen material issues were identified—including employee health and safety, social dialogue (labor–management relations), pollution prevention, and talent development and training—and these material issues were reflected in the ESG strategy and in prioritizing the contents of the Sustainability Report.

Materiality Matrix



ESG Material Issue and Reports Page

Div.	Material Issues	Report Contents	Page
1	Employee health and safety	Safety & Health Management	37~40
2	Social dialogue (Labor-Management Relations)	Talent Management	35
3	Pollution Prevention	Green Management, Eco-friendly Products and Technology Development	16~25
4	Human Development and Training	Talent Management	32~33
5	Fair competition	Ethics & Compliance	55~56
6	Employment and employment relationships	Talent Management	34, 59
7	Conditions of work and social protection	Talent Management	34
8	Awareness and commitment to ESG management	ESG Strategy, Governance	53~54
9	Customer complaint and dispute resolution	Customer Satisfaction Management	45, 60
10	Contribution to society through technological development	Development of Environmentally Friendly Products and Technologies	22~23
11	Promotion of ESG management in the supply chain (shared growth)	Shared Growth	41~44
12	Anti-corruption	Ethics & Compliance	55~56
13	Fundamental principles and rights at work	Talent Management	34
14	Protecting consumers' health and safety	Safety & Health Management, Customer Satisfaction Management	37~40
15	Climate change mitigation and adaptation	Eco-friendly Products and Technology Development	28~30

ESG Performance

●
Environmental

- Green Management
- Eco-friendly Products and Technology Development
- Climate Change Response

●
Social

- Talent Management
- Safety & Health Management
- Shared Growth
- Customer Satisfaction Management
- Social Contribution

●
Governance

- Governance
- Ethics & Compliance

For the sustainable development of humanity, practicing ESG management is not a choice but a necessity. Hanwha Engine considers the economic, environmental, and social impacts of its decisions and activities, and listens to and communicates with a diverse range of stakeholders. By practicing people-centered management that values talent, realizing a transparent and fair company, and delivering stakeholder-centered value, we will establish ourselves as a sustainable company.

Environmental

- Green Management
- Eco-friendly Products and Technology Development
- Climate Change Response

Hanwha Engine is working to expand green management by improving energy efficiency to minimize the energy costs incurred at its worksites and by managing greenhouse gas emissions.

In addition, to comply with IMO environmental regulations and carbon-neutrality policies and to enhance business competitiveness, we are advancing eco-friendly products and technologies to achieve sustainable growth.

Green Management

Management Approach

Context

As concerns over climate change and energy issues spread worldwide, companies are continually required to shift their paradigm to respond proactively to environmental issues such as the tightening of various environmental regulations. Accordingly, we need to actively participate in domestic and international climate-change policies and pursue diverse efforts to minimize environmental risks, such as developing eco-friendly engines and carrying out company-wide energy-saving activities.



Our Approach

Hanwha Engine recognizes green management as a social and ethical corporate responsibility. We strive to minimize the environmental impacts arising across the entire course of corporate management, from product development through assembly, transport, and disposal. Through green-management activities, we aim to cultivate environmental awareness among all employees and become an eco-friendly company.



Next Step

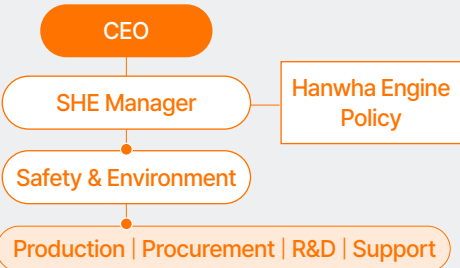
To expand green management, we will continuously produce eco-friendly engines that reduce exhaust emissions and fuel consumption from the engine-development stage, and we will disclose our green-management strategy and performance externally. We proactively manage environmental issues for new businesses, and through the production of clean-fuel (LNG, methanol, ammonia, etc.) engines and eco-friendly marine equipment (air-pollutant reduction devices), together with reductions in test-run fuel and electricity use, we will actively address climate change and greenhouse-gas reduction. In addition, as a worksite subject to the emissions trading scheme, we identify in advance the impacts on the worksite arising from the expansion of the carbon market and are preparing related manuals, procedures, and guidelines to facilitate carbon trading.



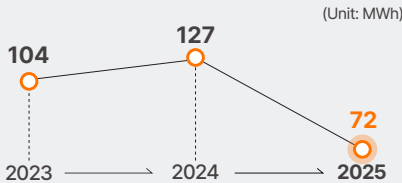
Environmental Management System Certificate



Green Management Promotion Organization



Energy Reduction Performance



Water Usage Promotion Performance

Water Usage Promotion Performance		
(Unit: ton)		
Implementation Year	Target	Performance
2023	180,000	175,649
2024	235,000	227,735
2025	250,000	248,588

* Water source: industrial water; Supplier: K-water

Green Management Policy and Strategy



Amid growing demands for environmental-information disclosure and the standardization of environmental-management systems, we operate a systematic framework in line with our company-wide green-management policy. Starting with foundation-building through regulatory response and process establishment, we are rolling out a gradual green-management strategy aimed at establishing an external evaluation framework in the future.

The Hanwha Engine Board of Directors reviews the green-management strategy and implementation plans, while management and a dedicated organization manage the status and performance of environmental-management implementation and identify and manage the material environmental impacts that affect corporate activities.

Green Management System



Hanwha Engine systematically operates a green-management system, establishing an environmental-management plan each year to review the worksite’s environmental impacts and pursuing continuous monitoring and improvement activities.

Since obtaining ISO 14001, the environmental-management system standard established by the International Organization for Standardization, we have maintained a green-management system that conforms to the international standard through regular surveillance and re-certification audits. In particular, a system that strengthens environmental-issue and risk management, ISO 14001:2015 transition-audit certification, has been completed; through such continuous system-improvement activities, we are doing our best to leap forward as an eco-friendly company.

Energy Management



We systematically manage total energy use and report annual energy consumption to the government, and we carry out activities to minimize energy consumption by analyzing the facilities that use each energy type. In addition, to promote the microgrid, a new energy-industry business model, Hanwha Engine, Korea South-East Power, and Doosan Enerbility signed an MOU and completed a successful system build-out. As Korea’s first case of an ‘industrial-complex microgrid,’ this project continues to operate successfully to date.

Energy (Including Water) Saving Activities

Hanwha Engine carries out a variety of activities to save energy. Through energy-saving campaign announcements, we instill a company-wide energy-saving mindset and pursue low-carbon green growth through energy-saving activities and improvements in facility energy efficiency.

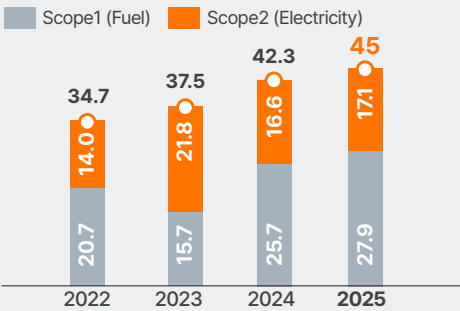
By making company-wide energy saving a habit, we turn off lighting in all plants and offices during lunchtime, and at night, substation shift teams patrol to cut off unnecessary lighting and electric heaters. By introducing an automatic control system for cooling and heating, we halt full operation at set times, divided into morning and afternoon in winter and summer, thereby minimizing energy use. To save water, we also produce and attach water-saving stickers where water is used, encouraging users to conserve water voluntarily, and we strengthen periodic preventive inspection and maintenance to minimize pipe leakage.

Energy and Raw Material Usage

Div.	Electricity (MWh)	B-A (kℓ)	LNG (1,000m³)	LNG (ton)	Gasoline (kℓ)	Diesel (kℓ)	Kerosene (kℓ)
2023	34,141	5,524	1,136	1,335	43	50	45
2024	36,152	5,852	1,831	1,902	27	44	46
2025 Target	39,000	6,500	2,100	1,605	30	52	50
2025 Actual	37,302	6,418	1,878	1,208	21	58	52

Greenhouse Gas Emission Amount

(Unit: ktCO2eq)



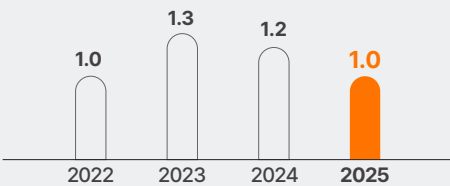
Greenhouse Gas Reduction Performance

(Unit: ktCO2eq)

Div.	2022	2023	2024	2025
Process Improvement	-	-	-	-
High-Efficiency Equipment Replacement	104	48	60	34
Total	104	48	60	34

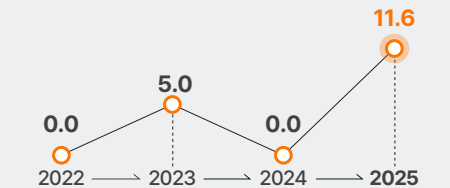
Dust Emission Concentration

(Unit: mg/m³)



Wastewater Consignment Treatment Amount

(Unit: m³)



Greenhouse Gas Emissions Management



Based on international standards such as ISO 14064, IPCC, WRI, we built a greenhouse-gas inventory for the Changwon worksite in 2009 and calculated the worksite’s emission sources and emissions. We systematically monitor and manage direct greenhouse-gas (Scope 1) and indirect greenhouse-gas (Scope 2) emissions.

To reduce test-run fuel, the largest source of greenhouse-gas emissions, we have selected it as an innovation-task theme and are continuously reducing greenhouse-gas emissions. We are reviewing and investing in technology development to improve ship-engine efficiency and in the construction of carbon-free and low-carbon fuel test-run facilities.

In addition, by adopting the latest design techniques and more, we produce high-efficiency, low-carbon, eco-friendly GAS engines. We have also introduced a central HVAC control system, replaced lighting with high-efficiency fixtures, and run company-wide power-saving campaigns, with all employees participating in greenhouse-gas reduction activities.

Environmental Pollutant Emissions Management

Air Pollutants

We have established and strictly comply with in-house environmental standards to emit dust, a major pollutant, at below 30% of the legal emission limit. The departments operating, inspecting, and managing the emission and abatement facilities jointly monitor proper operating conditions and continuously improve them, and they periodically replace consumables and abatement-facility fillers to maintain optimal performance. Beyond managing the air pollutants generated in its own production processes, Hanwha Engine is committed to fundamentally reducing air pollutants through product technology development. The air-pollutant reduction device developed with Hanwha Engine’s proprietary technology, the SCR (Selective Catalytic Reduction unit), is mounted on engines so that, while customers operate the engines, it dramatically reduces the air pollutants in engine test-run exhaust and lowers greenhouse gases, leading the way in protecting the global environment.

Water Pollutants

All wastewater generated at our factory, even in small amounts, is fully outsourced to specialized contractors for safe treatment. We operate a strict management system to prevent any external leakage from our storage tanks. In addition, our final discharge outlet is equipped with advanced automatic shut-off systems and

alarms to proactively prevent oil or wastewater from reaching the nearby coast during emergencies. We also remain fully compliant with all other water pollution regulations.

Soil-Contaminant and Oil-Spill Prevention System

We operate a dedicated department responsible for inspecting and improving the oil tanks used in the engine test-run process, and we conduct soil-contamination and leak inspections in accordance with legal standards. To prevent spills, we install oil-monitoring sensors and CCTV at major storage sites and have established response scenarios and an emergency-drill system for rapid response, thoroughly blocking the external release of hazardous pollutants.

Establishment of a Storm-and-Flood Emergency Response System

To prevent storm and flood incidents caused by climate change, we operate an early-warning system, and we have established an emergency-contact system for immediate response, giving top priority to protecting people and critical facilities. To prevent environmental incidents from typhoons and torrential rain, we conduct intensive preventive inspections of oil-storage and outdoor facilities and establish protective measures, striving to respond to incidents in advance. We pursue continuous improvement activities to minimize damage from natural disasters and create a safe worksite.

Greenhouse Gas Emission Target and Performance

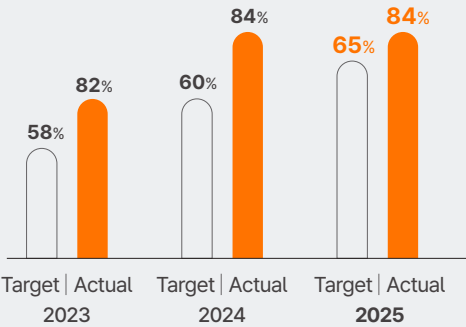
(Unit: ktCO2eq)

Year	Target	Performance	Emission Intensity	
	1,000ton	1,000ton	Sales (KRW 100 million)	Production Horsepower (1,000hp)
2023	38.0	37.5	0.00439	0.01173
2024	43.5	42.3	0.00352	0.01297
2025	47.5	45.0	0.00328	0.01329

Main Raw (By-)Material Usage Performance (Unit: ton)

Year	Product	Raw materials	Usage	Tons/ Million won
2023	Marine Engine	Steel and Others	43,200	0.05
2024	Marine Engine	Steel and Others	50,000	0.04
2025	Marine Engine	Steel and Others	49,200	0.03

Waste Circular Economy Goal Achievement Rate (Resource Recycling Rate)

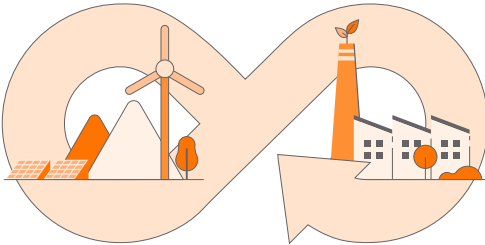


Year	Target		Actual	
	ton	%	ton	%
2023	2,117	58	2,993	82
2024	3,015	60	4,270	84
2025	3,727	65	4,787	84

Resource Recycling and Management



We recognize the importance of limited resources, and to use resources efficiently we continuously seek diverse resource-management methods such as by-product management and waste recycling.



By-product and Waste Management

We separate and collect various scrap metals, machining chips (Chip), and copper scrap generated at the plant for recycling and sale. Waste is separated into general and designated waste, moved to the waste storage yard, and treated in accordance with the Wastes Control Act. We also suppress waste incineration and landfill as much as possible and identify companies that can recycle it. We actively recover refinable waste oil, while waste wood used in parts packaging is recycled after sorting, actively participating in the government's circular-economy policy.

By-product Sales Status

(Unit: ton, KRW 100 million)

Div.	2023		2024		2025	
	Sales Volume	Amount	Sales Volume	Amount	Sales Volume	Amount
Scrap metals, Machining chips	955	4.3	1,221	4.4	1,183	3.5
Copper Scraps	4.0	0.3	6.0	0.6	3.5	0.4
Total	959	4.6	1,227	5.0	1,186.5	3.9

* Amount is subject to fluctuation depending on steel maker purchase price

Waste Treatment Status

(Unit: ton)

Div.	2023	2024	2025
Incineration	460	554	465
Landfilling	0	0	24
Recycling	2,993	4,008	5,267
Total Treatment Amount	3,453	4,562	5,756

Stakeholder Communication



We identify and manage in advance the needs of stakeholders (nearby businesses, NGOs) arising from exhaust gas (smoke) and noise generated in the final test-run stage after ship-engine assembly. By building mutual networks with stakeholders, we invite NGOs and related organizations to the plant and let them directly inspect our clean engine production lines. We also continuously carry out activities (volunteering, environmental clean-ups) that maintain communication and trust.

We conduct an annual stakeholder risk assessment and establish management plans.

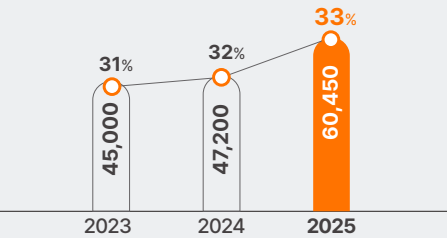
Compliance with Environmental Laws and Regulations

We apply strict in-house management standards and guidelines, and we operate a regulation-monitoring system for rapid response to increasingly stringent new laws and regulations.

Eco-friendly Product Purchasing Performance

(Unit: 1,000 KRW)

Office Supplies and Others Purchase Rate



Environmental Management Education Status (2025)

Div. (month)	Content	Number of trainees	Education Method
4	Waste Management (Statutory Education)	1 (Environmental Engineer)	Online
1~12	Hazardous Chemical Substance User Training	16	Collective
1~12	Hazardous Chemical Substance Manager Training	1,230	Online
5~11	New Employee Orientation	46	Collective

Supplier Environmental Management Support Status

Year	Visiting Month	Number of Suppliers	Number of Improvements
2023	March	2	6
2024	June	2	5
2025	June	2	6

Efforts to Spread Green Management



Promoting Eco-Friendly Product Purchasing

To protect the environment, Hanwha Engine has established and implements a green procurement policy that promotes the use of eco-friendly products. By redefining its purchasing regulations, it reviews in advance, from the purchasing stage, whether products are eco-friendly, and operates a process of registering green products and giving them purchasing and usage priority.



Supplier Environmental-Management Capability Building Program

To strengthen the environmental-management capabilities of suppliers (partners), we regularly provide consulting to suppliers and carry out activities with them to prevent environmental risks in advance.



Environmental Education and Environmental-Incident Response Drills

We regularly provide environmental-management education to employees, and legally appointed personnel such as environmental technicians complete the relevant training on the legally required cycle in accordance with environmental laws. We also identify in advance the material risks of environmental incidents based on environmental-impact assessments, and we establish environmental-incident emergency systems suited to each plant's characteristics and conduct response drills.



Establishing and Implementing Environmental Investment Plans

To minimize the environmental impact of our business activities, we continuously invest in environment-related facilities for air, water, waste, and more, and when reviewing new investment projects we closely examine environmental risk and opportunity factors through ESG assessment. In particular, for painting facilities—a major pollutant-emitting facility—we replace the auxiliary equipment and filler media of air-pollution prevention facilities anew each year to minimize pollutant emissions. We have also installed and operate scrubbers and absorption facilities to remove volatile organic compounds.



Renewable Energy Use and Investment

An ESS is a storage device that uses lithium-ion batteries to store electricity generated by solar power for use when needed; we have invested in and operate it for renewable-energy utilization and power efficiency.

Eco-friendly Products and Technology Development

Management Approach

Context

The International Maritime Organization (IMO)* began regulating nitrogen oxide(NOx) emissions from marine diesel engines starting in 2000 in order to improve atmospheric environmental quality resulting from nitrogen oxide (NOx) contained in exhaust gases from ships. Globally, Tier II (Stage 2) regulations apply, and in Emission Control Areas (ECA),** Tier III (Stage 3, NOx ≤3.4 g/kWh) regulations have taken effect and are being applied primarily to the North American coast. From 2021 onwards, Tier III (Stage 3) regulations are being expanded to broader regions including the North Sea and the Baltic Sea.

*International Maritime Organization (IMO)
**Emission Control Area (ECA): A region notified to the IMO by neighboring signatory states for the purpose of preventing, reducing, and controlling the discharge of nitrogen oxide (NOx), sulfur oxide (SOx), particulate matter (PM) from ships, or the discharge of any of these three pollutants.



Our Approach

In response to the strengthening of marine environmental regulations and intensifying competition in the marine engine business field, Hanwha Engine is researching and developing high-efficiency eco-friendly engines and eco-friendly equipment such as denitrification systems, and by providing related products to customers, the company is continuously making efforts to contribute to the improvement of future value and global environmental improvement. Furthermore, in line with the trend of eco-friendly Smart Ship development, Hanwha Engine is promoting the development of engine equipment utilizing ICT and Digital Solutions.



Next Step

Hanwha Engine is taking the lead in technology development that creates eco-friendly future value and in leading global technology trends, and in response to changes in Decarbonization and Digitalization, is concentrating research capabilities to strengthen its position as a Global Provider through eco-friendly and digital solution product development. Hanwha Engine is taking the lead in supplying advanced maritime transportation technology and products, starting with the provision of differentiated integrated solutions for eco-friendly equipment and engine packages. Additionally, to strengthen engine competitiveness in the autonomous vessel and related industrial markets, the company is promoting diverse research activities including prediction technology through data analysis and AI technology development for anomaly diagnosis.



R&D Framework



Hanwha Engine operates an R&D Center for securing fundamental competitiveness, including internalization of core low-speed engine technology. The R&D Center is organized into a Core Technology R&D Team, which is responsible for the development of engine core components and Sub-Systems, and a Green Technology Development Team, which is responsible for the development of eco-friendly equipment including exhaust gas aftertreatment technology, and is conducting R&D through these teams.

Strengthening R&D Capabilities



To achieve differentiated technology development and strengthen fundamental competitiveness, Hanwha Engine is promoting continuous R&D capability enhancement for engine core components and eco-friendly equipment technology through industry-academic cooperation and collaboration with government-funded research institutes such as the Korea Institute of Science and Technology (KIST), Korea Institute of Materials Science (KIMS), and Korea Institute of Industrial Technology (KITECH).

Expansion of R&D Organization and Strengthening of Technology Network



Hanwha Engine is continuously expanding excellent R&D personnel and diversifying the R&D network to explore new business opportunities and maximize research and development synergy. The R&D Center is promoting engine Sub-System technology development to strengthen market competitiveness in the engine business, and is supporting the development and commercialization of eco-friendly technology, including spray/reaction analysis, catalyst development, and verification tests. Additionally, through joint research with major industry-academic research institutes, domestic and overseas shipyards, and ship equipment manufacturers, the company is developing advanced ICT (Information & Communication Technology) and Digital Solution technologies to be applied to the Smart Ship Platform.



EDPD Monitoring System
(Engine Driving Parts Diagnosis)

Development of Eco-friendly High-Efficiency Engines

Eco-friendly High-Efficiency Engines (Everllence – G, WinGD - X Engines)

To meet customer demands for environmental sustainability, Hanwha Engine is leading the eco-friendly engine market by co-developing high-output marine engines that improve fuel efficiency and reduce emissions. Notably, the company applies Sequential Fuel Injection technology to Everllence engines to optimize SFOC and NOx levels. Additionally, for WinGD engines, Hanwha employs Variable Compression Ratio (VCR) technology, which optimizes the compression ratio under all operating conditions to deliver peak thermal efficiency and power.

Electronic Control Dual Fuel Engines (ME-GI, ME-GA, LGIM DF Engines)

In 2025, Hanwha Engine successfully commercialized the LGIM Dual Fuel engine from Everllence, which can utilize methanol and heavy fuel oil (HFO) in addition to conventional liquefied natural gas (LNG), and successfully delivered it to a Taiwanese shipowner. For the existing ME-GI engines that use LNG and HFO, we are meeting customer demands by preemptively applying technology that optimizes SFOC (Specific Fuel Oil Consumption) by increasing the LNG fuel supply pressure to 325 bar. Furthermore, we are preparing an engine capable of achieving even higher fuel efficiency by increasing the LNG fuel supply pressure to 380 bar in the future. In the case of WinGD’s DF engines, we are applying Small GAV (Gas Admission Valve) and Wide Gasket technologies to mitigate the issue of methane slip. We expect a total improvement of 30% in methane slip reduction—approximately 20% through the Small GAV and 10% through the Wide Gasket. Through collaboration with Everllence and WinGD, we continue to strive toward optimizing fuel consumption and reducing pollutant emissions, maintaining our market leadership.

Eco-friendly Dual-Fuel Medium-Speed Engine (Everllence - DF Engine)

Hanwha Engine has supplied more than 1,800 conventional fuel medium-speed engines in the past, and as the company resumes medium-speed engine business in 2025, it is constructing a new medium-speed engine-dedicated assembly and commissioning plant equipped with the latest test facilities within the company premises. From 2026 onwards, the company plans to produce medium-speed engines for ship propulsion, power generation, and electric propulsion (EPS), as well as medium-speed engines for on-shore power generation. Additionally, through licensing cooperation with Everllence, the company plans to primarily produce not only diesel medium-speed engines but also DF engine models using eco-friendly fuels such as LNG, and supply them as power generation engines for large-scale vessels such as container ships, LNG carriers, and VLCCs. Furthermore, targeting the small and medium-sized vessel market, the company plans to produce and supply eco-friendly DF medium-speed engines not only for power generation but also for mechanical propulsion and electric propulsion (EPS) use, and continuously expand the market. The eco-friendly DF medium-speed engines produced by Hanwha Engine are equipped with high output, methane slip reduction and other features to satisfy environmental regulations, as well as real-time monitoring and control capabilities to respond to market demand and environmental regulations. Additionally, based on cooperation with Everllence, the company is continuously promoting performance enhancement of eco-friendly DF medium-speed engines and development of next-generation eco-friendly high-efficiency medium-speed engines.

SCR (Selective Catalytic Reduction)

Environment

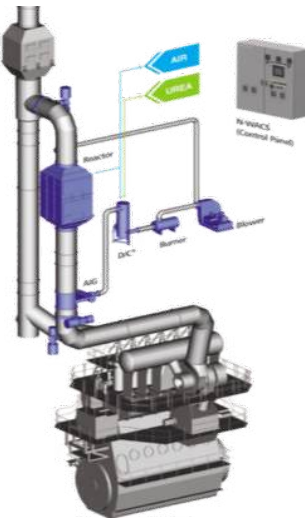
From 2016 onwards, as the International Maritime Organization (IMO)’s Tier III (Stage 3) regulation for the prevention of atmospheric pollution came into effect, nitrogen oxide emissions from marine engines must be reduced by 80% compared to Tier I levels (Stage 1) regulation. Hanwha Engine, as a Top Tier level engine maker, commenced the development of marine SCR from 2011 based on design and analysis technology and applied control technology that it possesses, and successfully achieved technology development and product commercialization. SCR is an eco-friendly product that converts nitrogen oxide (NOx - NO, NO₂, etc.) contained in exhaust gas into harmless nitrogen (N₂) and water (H₂O) using low-temperature activation catalysts and discharges them.

Technology

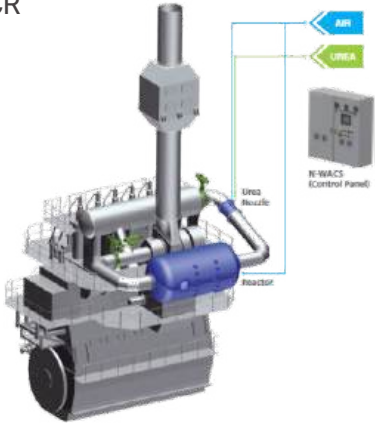
Generally, denitrification systems can be applied in exhaust gas at temperatures of 300 degrees or higher, so SCR had to be installed in a location close to the engine, which imposed constraints on the space utilization of the vessel. In order to overcome the technical limitations of existing SCR, Hanwha Engine jointly developed low-temperature activation catalysts with government-funded research institutes possessing world-class technical capabilities, and at the same time promoted the development of LP (Low Pressure) SCR system using proprietary technology. Additionally, the company was the first in the industry to install it in an actual-size dedicated test low-speed engine and performed performance testing and technical verification of the catalyst and SCR system, and in 2013 obtained a certificate from German Classification Society (GL) satisfying IMO Tier III regulation, thereby proving the excellence and originality of the technology. Hanwha Engine’s denitrification system (brand name: DelNOx) demonstrates superior performance even in regions where exhaust gas temperature is low, so installation is possible downstream of the turbocharger, raising the space utilization of SCR vessels and the flexibility of ship design. Additionally, in order to respond to diverse customer demands and provide value, the company has completed the development of HP (High Pressure) SCR that is installed upstream of the turbocharger, and based on the SCR technical capabilities accumulated in the marine field, is pursuing expansion into the on-land plant field's fine particulate matter reduction environmental business field, and is realizing eco-friendly technology leadership and future value creation based on excellent technical capabilities.

Service

Hanwha Engine has successfully achieved the world’s first LP SCR order and commercialization through differentiated technology development and securing of fundamental competitiveness, and is leading the global LP SCR market through the excellence of quality and performance. Additionally, the company was recognized again for its technical capabilities through HP SCR development and product orders and entry into the on-land plant catalyst market, provides diverse and differentiated integrated solutions from engine and SCR package supply to core equipment and component sales, etc., and through Premium service based on the quality technical capabilities possessed through engine business and a global network, is realizing customer-centered value improvement not only in the marine market but also in the on-land plant market.



LP SCR



HP SCR

GCU (Gas Combustion Unit)

Environment

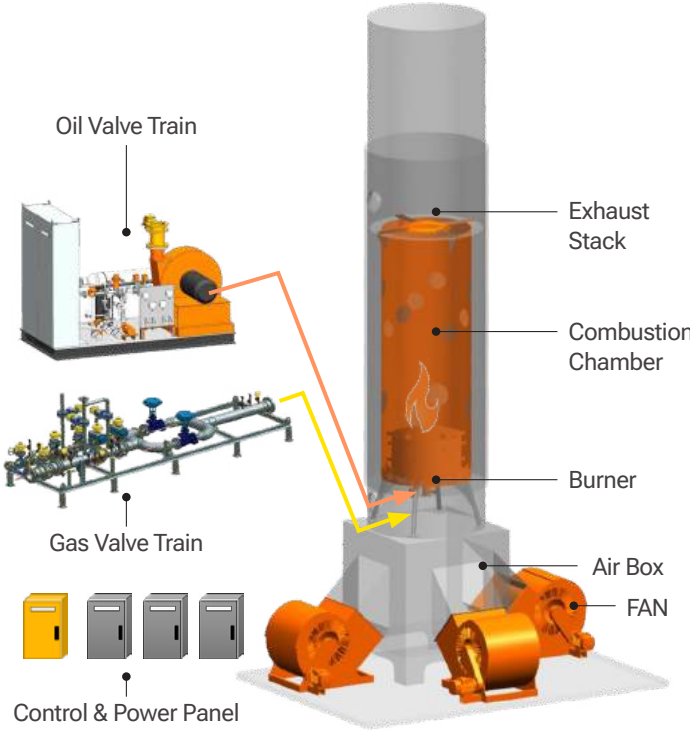
GCU is a core device for safely combusting and treating surplus gas (Boil-off Gas, BOG) and emergency discharge gas generated from LNG carriers and gas facilities. Since gas generated during ship operation cannot be discharged as it is, GCU is designed to completely combust it in a high-temperature combustion chamber and discharge it. In particular, in accordance with the strengthening of environmental regulations by IMO and each classification society, GCU is becoming established as an essential system that must simultaneously satisfy not only stable discharge control but also environmental protection, going beyond a simple incineration facility. Based on accumulated technical capabilities in gas combustion systems, Hanwha Engine has continuously developed and enhanced GCU suitable for marine applications. Through this, the company has secured stable ignition, flame maintenance, exhaust gas reduction, and safe gas processing performance under diverse operating conditions, and it is increasing the operational reliability of LNG carriers and gas fuel propulsion vessels.

Technology

GCU is a system that requires stable flame maintenance, rapid responsiveness, and complete combustion performance in order to safely handle combustible gas. Unlike general combustion devices, GCU must be operated in limited space on ships, so compact design and automatic control functions are very important. Additionally, air volume, fuel supply, ignition conditions, and flame detection must be precisely controlled to ensure incomplete combustion does not occur during the combustion process. Hanwha Engine has developed GCU based on combustion technology and ignition systems capable of stable operation from low load to high load, and flame monitoring and interlock control technology. Additionally, the company has strengthened combustion stability and control logic to respond to rapid gas flow rate changes and abnormal operating situations during ship operation, and through this it has secured both safety and operational convenience simultaneously. This technology serves as a foundation that enables expansion and application not only to BOG treatment of LNG vessels but also to diverse gas fuels and alternative fuel systems in the future.

Service

Hanwha Engine provides integrated services including design, testing, manufacturing, and commissioning in the GCU field. The company proposes optimal specifications tailored to customer requirements and ship operating environments, and secures stable quality through performance verification and interface adjustment at each project stage. Additionally, even after ship delivery, the company provides long-term reliability through operation support, performance inspection, component supply, and maintenance technical support. In particular, since GCU is equipment directly linked to safety, Hanwha Engine places importance on testing and verification that reflect actual operating conditions and has established Full Scale test equipment and is continuously improving performance. Based on this, the company provides customized solutions that satisfy environmental regulation response, operational stability, and maintenance efficiency required by customers, and is continuously strengthening competitiveness in the marine combustion device field.



[Gas Combustion Unit]

ESS (Energy Storage System)

To advance its eco-friendly ship-solutions business and strengthen competitiveness, in April 2026 Hanwha Engine acquired the related business from Hanwha Aerospace and newly established a dedicated ESS business organization, the ESS (Energy Storage System) Business Division.

In response to government and industry efforts toward carbon neutrality, and to address the eco-friendly and electrification trends of internal-combustion engines as well as various ship-operation issues, Hanwha Engine, building on electrification and digitalization technologies in the maritime field, is advancing its marine ESS business.

Building on the ESS (Energy Storage System) — the power source for eco-friendly vessels — the product lineup aims to deliver eco-friendly marine solutions by extending its value chain into the software and service domains. Through this, Hanwha Engine will pioneer eco-friendly vessel markets at home and abroad and grow into a global top-tier eco-friendly ship solution provider.

For Eco-Friendly Ships ESS

The ‘marine ESS (SEAL)’ developed by Hanwha Engine is an innovative system designed by filling lithium-ion modules with insulating oil so that, even if one battery cell ignites, the fire does not propagate to other cells. The product is ruggedly designed to prevent insulation failure caused by external environmental factors such as dust and salinity, and, having proven outstanding safety, it recently obtained certifications from global certification bodies including DNV (Norway), ABS (USA), and KR (Korean Register). Based on this fire safety and differentiated technology, Hanwha Engine is firmly establishing its position in the domestic government-vessel and small-to-mid-sized private vessel markets. Furthermore, through cooperation with large overseas system integrators, it aims to position itself as an ‘eco-friendly marine solution leader,’ and it is developing models using new battery materials to meet diverse overseas customer requirements (operating profiles, lifespan, etc.). Through this, Hanwha Engine plans to continuously expand its presence in overseas markets.



SEAL Standard



SEAL Energy



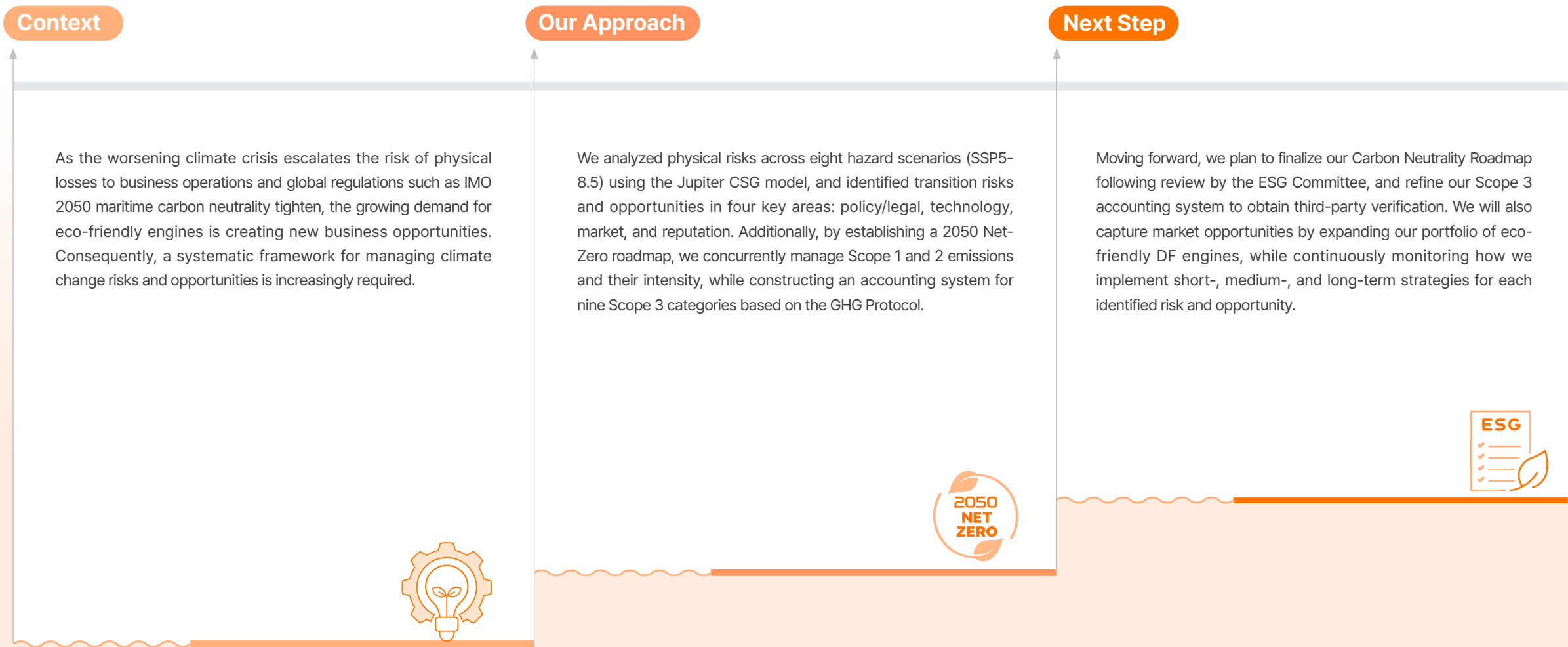
Coral Eco



Coral Life

Climate Change Response

Management Approach



Climate Scenario Analysis

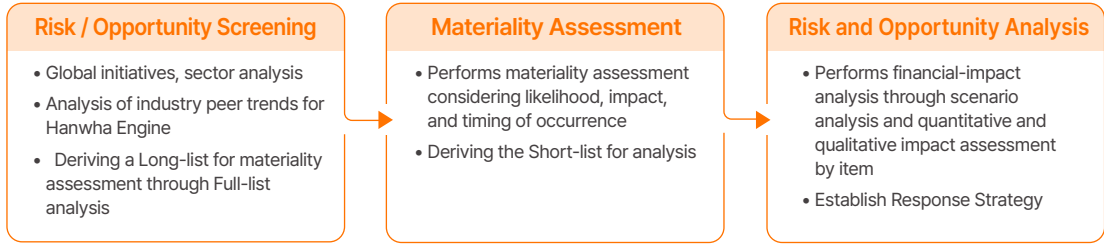


Hanwha Engine, based on the TCFD recommendations, analyzed physical risks and transition risks and opportunities over time and quantified the medium-to-long-term financial impact. Through this, we analyze the impact of propagation pathways under each scenario to respond proactively to climate change and take appropriate measures.

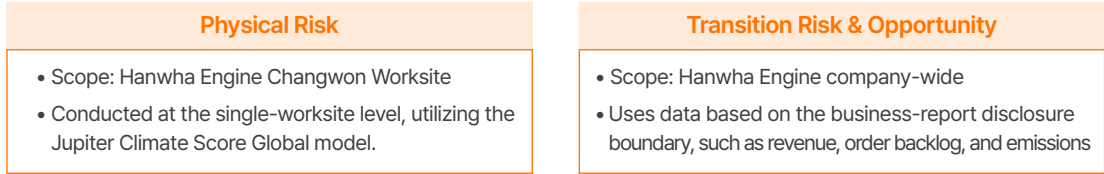
Overview of Hanwha Engine’s Climate Scenario Analysis

Hanwha Engine’s climate scenario analysis focuses on multidimensionally identifying the financial impacts where opportunities and risks intersect over time. In this way, our scenario analysis functions as a key tool for proactively grasping climate variables that unfold differently by period and for refining response strategies.

Climate-Related Risk and Opportunity Analysis Process



Scope of Climate Scenario Analysis



Time Horizon Definition



Physical Risk and Transition Risk & Opportunity Analysis Scenarios

For physical risks, we used the Shared Socioeconomic Pathway (SSP) scenarios used in the IPCC 6th Assessment Report, which reports natural disasters based on carbon emissions and the rise in global average temperature. For transition risks and opportunities, we partly adopted the KAU outlook scenarios published by the Bank of Korea. The domestic carbon-emission allowance, a key indicator of transition risk, serves as the baseline for quantitatively estimating the long-term price outlook and the resulting financial cost burden on companies.

SSP (Shared Socioeconomic Pathways)		Bank of Korea KAU outlook	
Comprehensively considers radiative forcing together with factors from socioeconomic change		Based on the 4th Emissions Trading Scheme planning period, predicts KAU prices according to climate-change impacts	
Scenario	Meaning	Scenario	Meaning
SSP 1-2.6	Assumes minimized fossil-fuel use through the advancement of renewable-energy technology and eco-friendly, sustainable economic growth	Current Policy	A pathway that maintains the 2030 NDC trajectory and increases the proportion of paid allocation.
SSP 2-4.5	Assumes a middle stage of climate-change mitigation and socioeconomic development	Enhanced NDC	A pathway that introduces a linear reduction trajectory and achieves 100% paid allocation by 2034.
SSP 5-8.5	Assumes increased fossil-fuel use and unchecked development expansion due to rapid industrial-technology advancement	Carbon Neutrality	A pathway that commercializes low-carbon technologies and achieves 100% paid allocation early by 2030.

Input Variables and Parameters Used in Financial-Impact Estimation

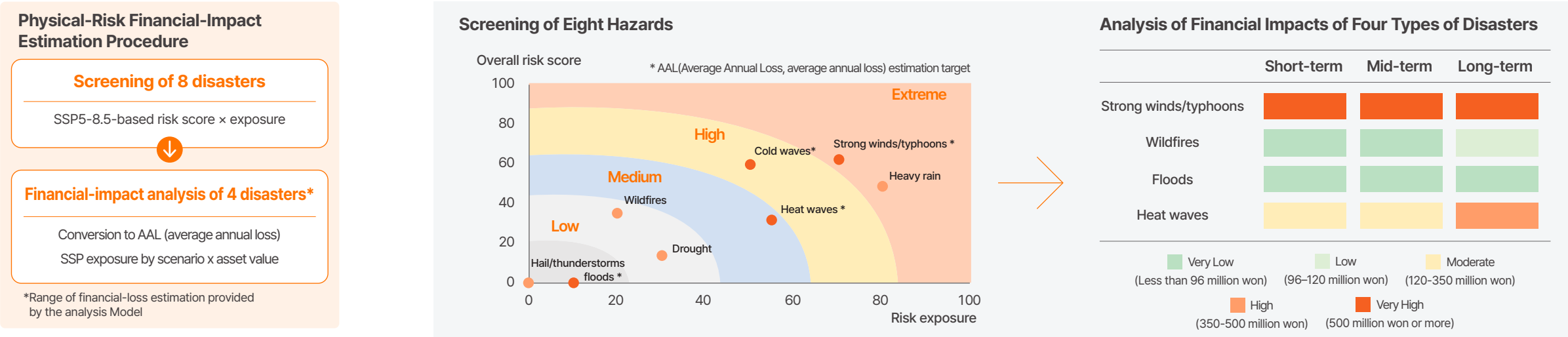
Category	Key Analysis Variables	Source of Data Used
Physical Risk	Precipitation, typhoon frequency, average-temperature change, etc.	IPCC scenario
Transition Risk	Allowance price, ETS free allocation, climate-environment charges, facility investment cost	Bank of Korea, KEPCO, internal data
Opportunity	Allowance price, electricity rates, scheduled delivery revenue	Bank of Korea, KEPCO, internal data

Physical Risk

Physical-Risk Analysis Overview

The physical-risk analysis found that strong winds and typhoons pose the highest financial impact, and heat-wave risk is projected to expand over the medium-to-long term.

To prevent potential losses from the deepening climate crisis and to secure the resilience of the Changwon worksite, Hanwha Engine performed a physical climate-risk scenario analysis using Jupiter Intelligence’s CSG (Climate Score Global) model. Based on the SSP5-8.5 scenario used in the IPCC’s 6th Assessment Report, we assessed the risk exposure of 8 disasters—floods, strong winds/typhoons, heat waves, drought, wildfires, heavy rain, cold waves, and hail/thunderstorms—and the worksite’s overall risk level was 36 points (low). Considering likelihood, impact, and management capability comprehensively, we manage risk across 5 levels (very low to severe). Of these, the financial impact combined with asset value (AAL, average annual loss) was quantified for 4 items—acute (strong winds/typhoons, wildfires, floods) and chronic (heat waves)—and derived cumulatively by short-, medium-, and long-term periods.



Physical-Risk Analysis Results

Key Physical-Risk Assessment Results and Response Measures

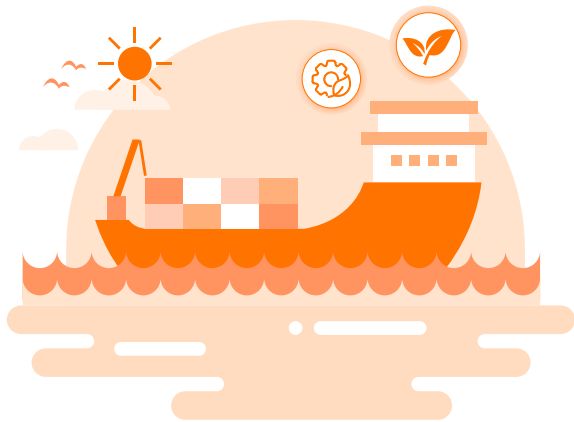
(Unit: Million KRW)

Type	Risk Factor	Impact on Hanwha Engine	Financial Impact			Response Measures	
			Short-term	Mid-term	Long-term		
Physical Risk	Acute	Strong winds/typhoons, wildfires, floods	Damage to worksite facilities and losses from operational shutdown	1,176~1,199	1,793~1,807	12,303~12,550	Inspect the wind resistance of envelope structures such as roofing and cladding; maintain fire-response plans and fire-equipment inspection cycles for warehouses and storage yards
	Chronic	Heat waves	Reduced labor productivity and increased cooling costs	251~260	485~493	5,514~7,779	Review strengthening of worker-protection standards for outdoor and non-air-conditioned work areas

Transition Risks and Opportunities

The identification of transition risks and opportunities found that the IMO’s strengthening of shipping carbon-neutrality regulations simultaneously creates the risk of declining fossil-fuel engine demand and the opportunity of expanding eco-friendly engine orders.

The IMO’s 2050 net-zero target is driving growing demand for eco-friendly ship conversion in line with international shipping carbon-neutrality goals, and together with strengthened domestic K-ETS, climate-environment charges, and other carbon-neutrality policies, it affects both Hanwha Engine’s risks and opportunities. Accordingly, we identified transition risks and opportunities from multiple angles (policy and regulation, technology, and market) and established financial impacts and response measures by scenario.



 Low  Medium  High

Key Transition Risk and Opportunity Assessment Results and Response Measures

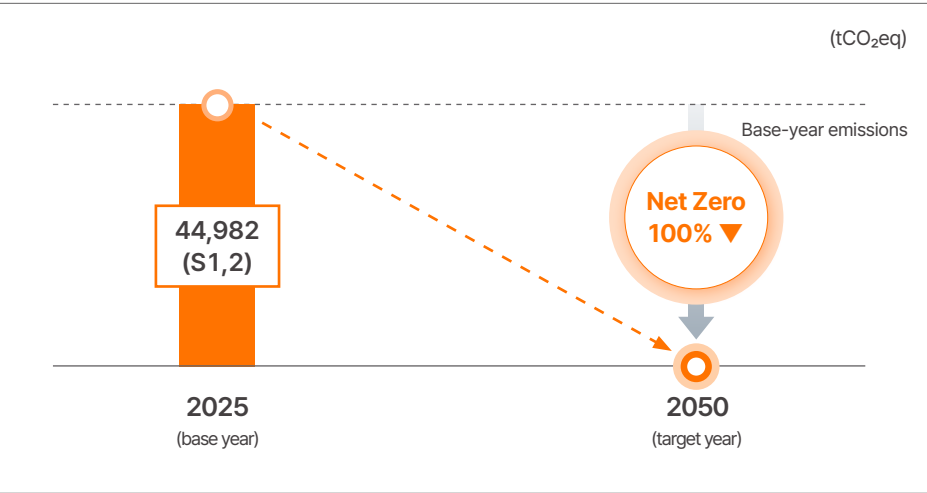
Type	Risk & Opportunity Factor	Impact on Hanwha Engine	Financial Impact			Response Measures	
			Short-term	Mid-term	Long-term		
Transition Risk	Policy & Regulation	Reduction of K-ETS free allocation and rising allowance prices	Higher allowance purchase costs				Improve efficiency of worksite fuel, facilities, and test-run processes; procure renewable energy through self-generation, green premium, etc.
	Policy & Regulation	Imposition and strengthening of climate/ environmental regulations	Higher power costs				Procure renewable energy through solar, self-generation, PPA, green premium, etc.
	Technology	Process and facility transition for eco-friendly engine production	Increased CAPEX investment burden			-	Establish a CAPEX investment plan centered on worksite fuel and facility transition
	Market	Acceleration of the shift to eco-friendly vessels	Declining demand for fossil-fuel engines and increasing production-plan uncertainty	-	-	-	Monitor the IMO regulatory roadmap and shipowner trends
	Reputation	Failure to meet carbon-reduction targets and delayed transition	ESG rating downgrade and reputational damage	-	-	-	Implement the carbon-neutrality roadmap and pursue a K-RE100 target-achievement strategy
Opportunity	Energy Source	Expansion of the renewable energy transition	Lower power costs and allowance purchase costs	-			Expand renewable-energy procurement options and reduce allowance purchase costs
	Products, Services & Market	Growing demand for eco-friendly fuel transition	Revenue growth from rising orders for DF (dual-fuel) engines			-	Expand LNG, methanol, and DF engine orders and raise the share of the eco-friendly engine portfolio
	Resilience	Holding a multi-fuel-capable engine portfolio	Enhanced responsiveness to regulatory and market changes through secured fuel flexibility (improving business stability)	-	-	-	Maintain and strengthen the multi-fuel-capable engine portfolio

Carbon-Neutrality Roadmap

To respond to global carbon-neutrality policy, in May 2026 Hanwha Engine established the ESG Committee under the Board of Directors to set up climate-response governance, and it formulates and implements its climate-response strategy through the ESG Secretariat and a working-level task force (safety & environment module).

Hanwha Engine has established a greenhouse-gas reduction roadmap targeting 2050 carbon neutrality (Net-Zero), to be finalized through ESG Committee deliberation. Setting 2025 as the base year, indirect emissions (Scope 2) are reduced first through 100% renewable-energy (RE100) conversion by 2030, while direct emissions (Scope 1) are planned to be reduced over the long term by reviewing reduction measures. In addition, using engine production horsepower (reflecting product characteristics and production activity) as the key indicator, we derived a production-intensity reduction path, achieving intensity reduction rates (vs. 2025) of 37.9% by '30, 68.2% by '40, and 100% by '50, thereby managing and reducing both absolute volume and intensity simultaneously. Based on the GHG Protocol, Hanwha Engine calculated its 2025 value-chain-wide greenhouse-gas emissions (Scope 3) for the first time, across 9 categories totaling 220,806 tCO2eq. Going forward, we will annually review and upgrade the accounting system and disclose reliable data through third-party verification.

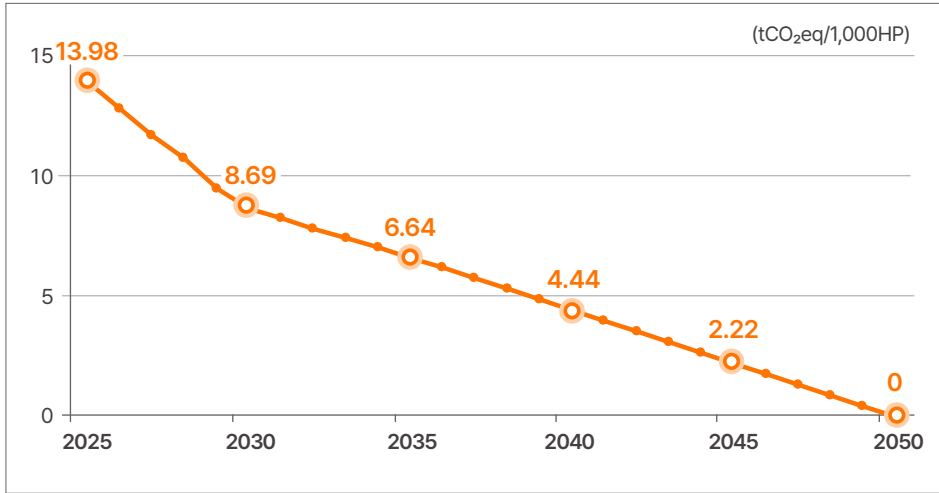
Carbon-Neutrality Roadmap (SCOPE 1&2)



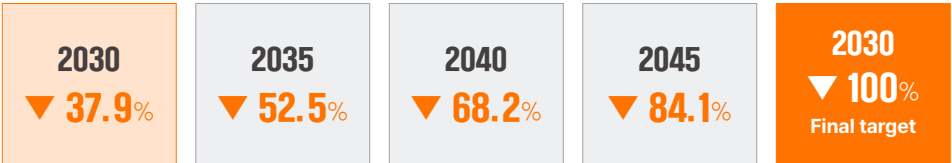
Carbon-Neutrality Targets and Implementation Strategy

Setting 2025 as the base year, we target 100% renewable energy by 2030 (RE100) and a 100% reduction in absolute emissions and intensity by 2050 (Net-Zero). Indirect emissions (Scope 2) are reduced first through the renewable-energy transition, while direct emissions (Scope 1) are reduced over the long term through measures such as low-carbon and carbon-free conversion of engine test-run fuel, process efficiency, and CCU (carbon capture and utilization). We also intend to continuously upgrade the roadmap to reflect technological and policy conditions.

Production-Intensity Reduction Path



Intensity reduction rate (vs. 2025) | 2050 final target (Net-Zero)



Scope 3 Calculation '25 basis)

Category	Emissions (tCO2eq)
Purchased goods	209,477
Capital goods	2,146
Fuel and electricity	4,104
Upstream transport	1,750
Waste generated	708
Business travel	779
Employee commuting	844
Downstream transport	643
End-of-life of sold products	355
Total	220,806

Social

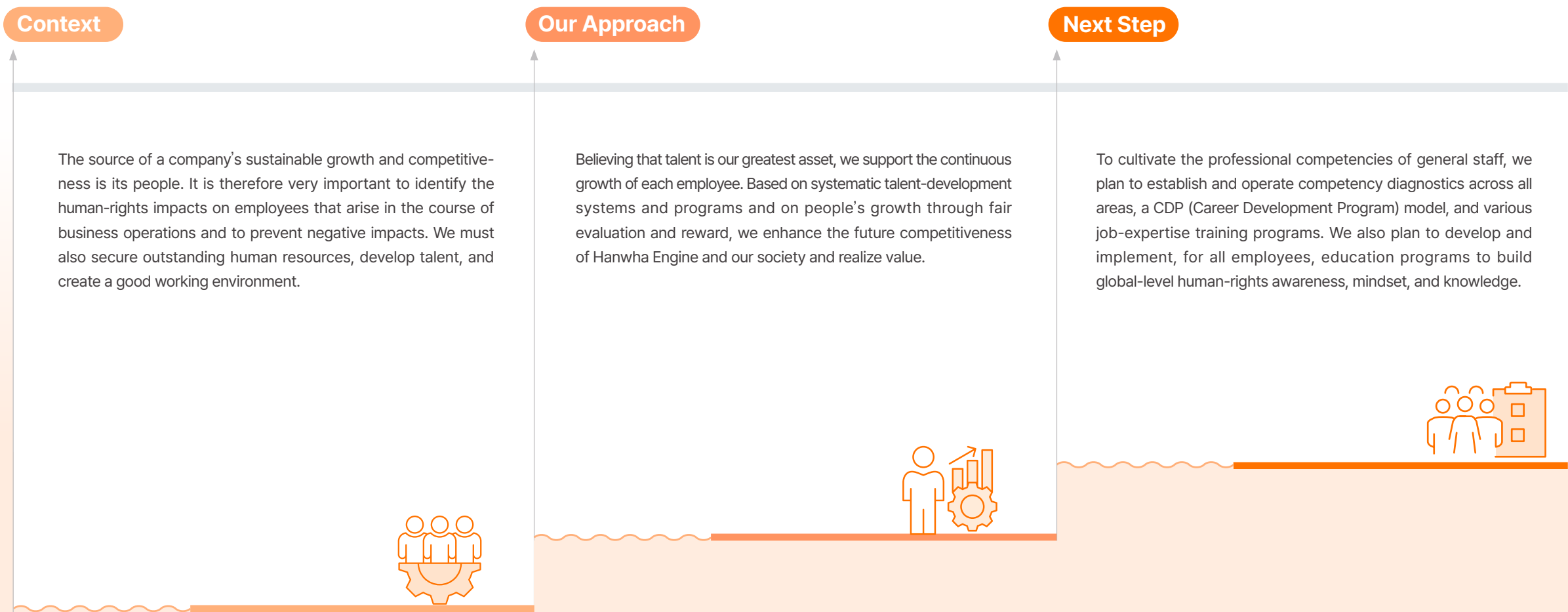
- Talent Management
- Safety & Health Management
- Shared Growth
- Customer Satisfaction Management
- Social Contribution

Hanwha Engine’s sustainable foundation is its people. Beyond creating a safe working environment, we pursue shared growth and customer satisfaction, and as a corporate citizen we carry out community-contribution activities for sustainable social development and a prosperous future for humanity.



Talent Management

Management Approach



Talent Development

Hanwha Engine has established a career development framework to enhance employee engagement and job satisfaction by supporting employees in developing career paths aligned with their individual competencies and aptitudes, and is implementing a talent development strategy based on a career-stage-based training system. Hanwha Engine defines its ideal talent as a “Great Challenger” embodying a mindset of ownership, exceptional distinction, and adaptability. To cultivate talent aligned with this vision, Hanwha Engine has established four core talent development pillars (Leadership, Global, Functional Competency, Values) and operates a talent development system based on these directions.

1

Leadership Field

Hanwha Engine conducts leadership development programs to enhance the competencies and mindsets required of executives and leaders at each level. In addition to MBA programs for executive development, the company provides training for new leaders to redefine their roles and strengthen leadership capabilities, thereby enhancing core competencies in performance management, communication, and organizational management.

2

Global Field

Hanwha Engine provides a range of training programs to enable employees to effectively operate in global markets. The company operates language development programs, including intensive language courses, for employees across all career levels, thereby systematically cultivating global talent capable of performing effectively in overseas expansion and international assignments.

3

Job Competency Field

Hanwha Engine provides diverse educational programs to improve job competency and expertise. In particular, to secure excellent engineers, the company independently designs and operates overseas technical training assignments, as well as commissioning and design capability development programs. The company has conducted comprehensive competency assessments across all functions, including quality and planning/support sectors, and will establish and implement individualized development plans to strengthen job-specific expertise.

4

Values Field

Hanwha Engine operates orientation programs for new hires and experienced hires to cultivate talent aligned with the Group’s core values and the company’s talent philosophy, and implements systematic onboarding programs to support the successful integration and early performance of new employees.

5

Developing Technical Experts

Hanwha Engine develops technical experts through hands-on, experience-based development programs, including structured internship programs for new hires and 1–2 months of post-entry on-the-job training (OJT). When introducing new engine models, the company conducts design-led briefings on specification changes in the assembly field prior to the assembly of new specifications. In the commissioning field, it develops model-specific procedures and provides in-house training, thereby ensuring high-quality product manufacturing.

6

Retirement Planning Support Education

Hanwha Engine operates a retirement planning program to support employees in leading a stable and fulfilling life after retirement. The company provides education and resources on change management, career planning, and financial planning, thereby supporting employees in preparing for their post-retirement life.

7

Measuring Education Effectiveness

Hanwha Engine evaluates training effectiveness by assessing satisfaction, learning outcomes, and on-the-job application for external training programs directly related to job competencies.



Job Creation

To secure the outstanding workforce essential to continued business growth, we recruit talent through diverse means. The company hires through hire-linked internships and experienced professionals with expertise in each field, and—maintaining ongoing attention to vulnerable groups—participates in disability job fairs and conducts diverse hiring.

Fair Evaluation and Reward

Based on its core values (Challenge, Dedication, Integrity), Hanwha Engine operates its evaluation and reward systems objectively and fairly. It conducts performance evaluations and competency diagnostics for general staff and, on the principle of performance-based differentiated reward, operates an annual-salary and incentive system. In particular, since 2024 it has abolished relative ranking-style evaluation and introduced an absolute-evaluation system focused on challenging strategic goals and employee growth, strengthening evaluation fairness through multi-rater leadership diagnostics.

We also operate a reward system that links wage increases and incentives to performance-evaluation results so that those who contributed to performance receive commensurate rewards. We operate an expatriate program to ensure stable living for staff working overseas. To enable all employees operating worldwide to work under equivalent conditions, we have established a fair compensation system, and for overseas assignments we provide cost-of-living support reflecting the host country’s price levels and living environment, helping employees maintain the same standard of living amid the changed environment.

Improving Employee Rights

In accordance with in-house policies established across the entire hiring, employment, and retention process, Hanwha Engine builds a working environment where employees can continuously work in a stable setting. We comply with laws on human rights and working conditions and, in accordance with the Labor Standards Act and the International Labour Organization (ILO) guidelines, prohibit child labor and forced labor at all worksites. Hanwha Engine does not discriminate on the basis of gender, religion, race, age, education, or the like. To prevent career interruption for female staff, we provide pre- and post-natal leave and parental leave. In addition, pursuant to laws on equal employment and work-family balance, we conduct sexual-harassment prevention training for all employees and operate a grievance-handling system, among other activities to respect employees’ diverse rights.

Human Rights and Gender Equality Education

To prevent various in-house human-rights violations caused by ignorance, Hanwha Engine periodically conducts education on the code of ethics, sexual-harassment prevention, workplace harassment, and disability-awareness improvement.

Human-Rights Management Channels

To prevent and manage human-rights risks within the organization, we operate always-on communication channels, as well as a dedicated organization and procedures to directly address grievance counseling, workplace sexual harassment, and workplace bullying. Furthermore, to prevent and proactively respond to human-rights issues, we share information between management departments—HR, labor relations, legal—and field departments so that no secondary harm arises from undesirable rumors or gossip within the organization.



Human-Rights Respect and Anti-Discrimination Reporting Process

Report Received

- When an issue subject to reporting arises, the parties and stakeholders file an internal report
- Internet Portal (internal reporting center)
- In-person visits/consultations, email, phone, postal mail, etc.

Fact-checking and Investigation

- During investigation, observe the principle of confidentiality, maintain secrecy, and respect the human rights of both victim and perpetrator

Result Review and Reporting

- If necessary, convene the HR committee and discuss disciplinary measures

Follow-up Actions

- Proceed with disciplinary procedures per the reward-and-punishment rules
- Notify the reporter of the outcome of the reported matter

Labor-Management Win-Win



Hanwha Engine recognizes its labor union as a partner and maintains a mutually cooperative relationship. As of the end of 2025, the union had 416 members out of 557 eligible employees, a unionization rate of 74.7%, and in accordance with relevant laws we conduct annual wage negotiations and biennial collective-agreement bargaining. To enhance worker welfare, handle grievances, improve the work environment, and promote health, we hold quarterly labor-management council meetings and ad hoc special meetings. For items tabled at the council, we devise measures through candid labor-management consultation to promote both sides' mutual interests. Beyond wage and collective bargaining and the labor-management council, major labor-management communication channels include the Industrial Safety and Health Committee, the grievance committee, joint labor-management safety inspections, and musculoskeletal hazard-factor surveys. Through frequent labor-management dialogue we share the business situation and we are developing a win-win, cooperative labor-management relationship by listening to each other's views on matters requiring cooperation and devising reasonable measures.



Industrial Safety and Health Committee

We established the Industrial Safety and Health Committee, composed of an equal number of employee and employer representatives, to deliberate or resolve important matters concerning industrial safety and health. Through regular meetings held at least once per quarter and ad hoc and working-level meetings as needed, labor and management consult on and operate overall SHE (safety, health, and environment) matters.



Strengthening Communication

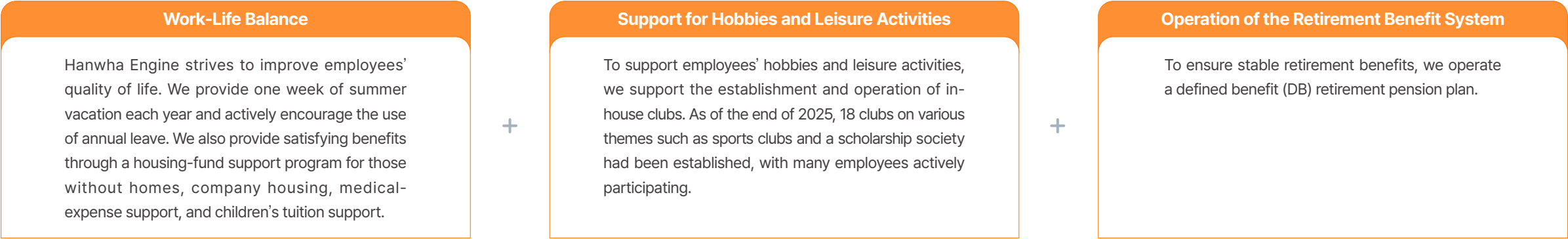
We establish short-, medium-, and long-term career-development plans for each employee's growth and communicate with supervisors periodically. We also conduct job rotation reflecting individual aspirations and capabilities, supporting capability enhancement through work and the realization of personal visions. Beyond this, we operate a grievance-handling system that gathers and resolves employee grievances and improves job satisfaction. Going forward, we plan to continuously study grievance-handling processes tailored to the times and to employees' expectations, thereby raising job satisfaction.



Industrial Safety and Health Committee Composition and Implementation

Classification	Implementation Cycle	Committee Composition
Regular Meetings	At least once per quarter	• Labor: Employee representative, Honorary Industrial Safety Inspector (Head of Industrial Safety and Health Department), and up to 9 workers designated by the employee representative • Management: Representative of the business (Safety and Health Management Officer), Safety Managers and Health Managers, and up to 9 department heads designated by the business representative
Temporary Meetings	As needed	Same as above
Practical Working Meetings	At least once per month	• Labor: honorary industrial-safety supervisor, up to 2 Safety & Health Committee members • Management: safety & health team leader, safety manager, health manager

Welfare and Benefits



Major Employee Benefits and Welfare Status

Leisure Support	Housing Support	Child Rearing Support	Vehicle Support	Mutual Aid	Medical and Health Support	Other Support
Summer vacation	Dormitory for single employees	Tuition and admission congratulatory grants	Commuter bus operation	Mutual-aid support service system	Surgery-cost support	Long-service awards
Resort condo support, etc.	Company housing for those without homes	Childcare-facility cost support	Vehicle support for family events	Family-event (congratulation/condolence) cash support	Comprehensive health-checkup support	Welfare points and refresh points, etc.
	Housing-purchase funds and housing support for long-distance commuters, etc.				Group accident insurance and savings insurance enrollment	
					Operation of a medical office and physical-therapy room	
					Operation of a primary-care-doctor system, etc.	

Safety and Health Management

Management Approach

Context

Workers have the right to work in a safe and pleasant environment. Recognizing that worker safety and health are essential to the company’s sustainable development, Hanwha Engine prioritizes worker safety in all production activities. From the design stage through production and investment, we review operations so that they are run in the safest way, identifying and addressing hazards in advance through systematic safety assessments and hazard-factor surveys.



Our Approach

Hanwha Engine not only complies with domestic and international safety and health requirements but also applies in-house standards stricter than legal requirements to create worksites where employees can work safely and healthily. We also extend the scope of safety and health management to partners and the local community, doing our utmost to create accident-free, pollution-free worksites.



Next Step

The ultimate goal of safety management is the respect for human dignity. To ensure that worker safety is the top priority in all production activities, we review and implement the safest methods at every stage, from initial design to investment and production. We will continue to develop and support various SHE (Safety, Health, and Environment) training, practical exercises, and experiential programs to further strengthen our execution capabilities on the shop floor. Furthermore, by identifying individual environmental factors and transparently disclosing our health and safety performance, we are fully committed to fostering a world-class safety culture.



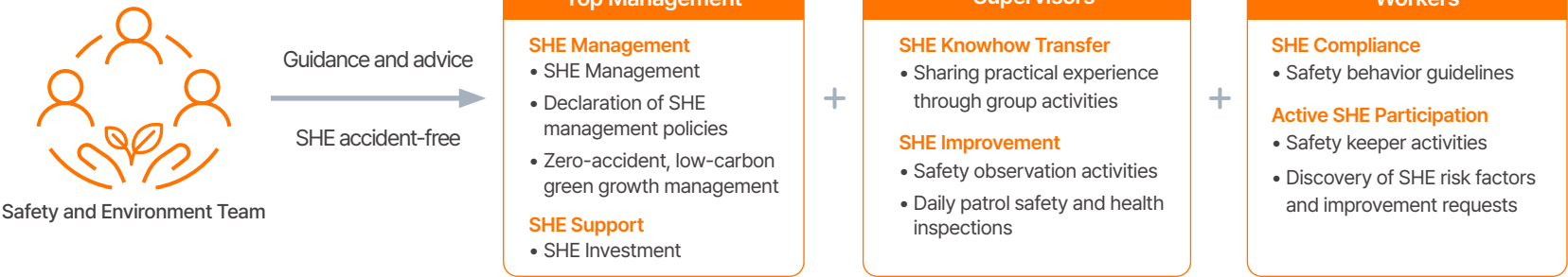
Safety and Health Management Framework

Based on a management philosophy of respect for people, to realize employees' safety and health and the satisfaction of internal and external stakeholders in all management activities, Hanwha Engine establishes and complies with an SHE management policy.

Safety and Health Management Organization and System

To create a healthy and safe work environment, Hanwha Engine operates a safety and health management system in accordance with ISO 45001 and conducts safety and health management activities by department and rank. The Industrial Safety and Health Committee, composed of 10 members (5 each from labor and management), discusses and improves specific matters such as environmental improvement, accident prevention, health checkups, and education, and employees themselves set and practice safety goals to reduce the accident rate.

SHE Roles by Level



Field-Centered Safety Management

Hanwha Engine has enacted safety code-of-conduct rules by work process, machining facility, and transport equipment, and before starting work it cultivates workers' safety awareness using TBM (Tool Box Meeting) materials. To prevent various accidents on the production floor, by rank and department it conducts SHE prevention activities.

Safety Observation Activities

In safety observation activities, supervisors at or above the production-manager level on each site contribute greatly to spreading safe workplaces and a safety culture by identifying and improving hazards through floor observation and encouraging workers' safe behaviors and conditions.



Safety Guardian Activities

Safety guardian activities are safety activities in which all workers proactively participate to enhance the effectiveness of on-site safety management and prevent accidents. One worker is designated in rotation as a safety guardian for one week, voluntarily improving unsafe behaviors and conditions, thereby protecting their own workplace and colleagues' safety, inducing continued participation, and contributing greatly to enhancing responsibility for on-site safety.



Dedicated by production-floor zone Real-time inspection and action by safety managers

Dedicated safety managers are assigned by zone on the production floor to inspect unsafe behaviors and conditions in real time, register them in the computer system, and improve them immediately. The improvement results are comprehensively analyzed and fed back, and reflected in SHE evaluations to induce voluntary participation.



Safety and Health Management System Certification

Safety Management Activity Status

(Unit: Case)

Div.	Daily Inspection	Weekly inspection	Joint Safety Inspection	Safety Observation Activities	Safety Keeper Activities	Total
Q1	156	61	12	1,668	2,186	4,083
Q2	230	74	15	1,637	2,180	4,136
Q3	281	83	14	1,500	2,032	3,910
Q4	199	56	10	1,446	2,021	3,732
Total	866	274	51	6,251	8,419	14,995

Establishment of an Emergency Response System

Giving top priority to the safety of employees and stakeholders, Hanwha Engine has established and operates an integrated emergency response system prepared for various disasters and emergencies. We also prepare customized response manuals reflecting each worksite’s characteristics and risk level to minimize confusion when a crisis occurs and to secure corporate sustainability; we strengthen employees’ response capabilities through regular education and drills and strive to create a continuous management environment through rapid post-crisis recovery. We will establish and develop a crisis-management culture so as to become a safe worksite.

Promotion of a Safety and Health Win-Win Cooperation Program

Hanwha Engine promotes safety and health win-win cooperation projects in which internal and external partners voluntarily cooperate to improve partners’ safety and health levels and prevent industrial accidents. Each year, by selecting all in-house partners and major external partners, we continuously pursue various safety and health support activities such as parent-company risk-assessment support and consulting support from professional safety-management institutions.

Hazardous Chemicals and Hazardous Equipment Management System

To minimize the use of hazardous chemicals that adversely affect people and the environment, we apply strict management standards across the entire process from purchase to disposal. To this end, we build an inventory of all chemicals used and, through a database-based management system, conduct an annual chemical-emissions survey to identify chemical migration routes and thereby manage and report the amounts released into the environment.

In particular, to prevent chemical accidents, by operating a chemical-accident prevention and management plan and implementing the Process Safety Management (PSM) system, we prevent major industrial accidents involving hazardous equipment and voluntarily build an accident-prevention system at the worksite, continuously managing it so that there is no harm to workers or the worksite’s surroundings.

Operation of an Accident Prevention TF

To strengthen accident-prevention activities, we operate a dedicated organization, the Accident Prevention TF. We conduct risk assessments by work process for both in-house and partner operations to systematically uncover potential hazards, with particular focus on inspecting legal non-compliance and identifying hazards and risk factors related to musculoskeletal disorders. For the identified risk factors, we establish and apply improvement measures and disseminate the improvements through worker education, enhancing the effectiveness of accident-prevention activities.

Serious-Accident Prevention Activities

On January 17, 2022, when the Serious Accidents Punishment Act took effect, we place safety management, including the CEO’s duty to secure safety and health, as our top value and make substantial efforts to prevent serious accidents.

With firm leadership on safety and health, such as revising the safety and health management regulations and establishing a dedicated serious-accident prevention organization, we secure the safety and health of all workers. In this regard, by building and implementing a safety and health management system, including performance evaluation of supervisors, evaluation of qualified in-house and external partner suppliers for safety and health, and quarterly operation of a Safety and Health Management Committee, we are building an organizational culture that values safety and health above all.



Emergency Response Training



Safety and Health Co-Prosperity Collaboration Program

Div.	Evaluation Target	Uncovering Hazards and Risk Factors
2024	Direct operations: 9 divisions; Suppliers: 6 companies	256 cases
2025	Direct operations: 20 divisions; Suppliers: 7 companies	406 cases

Div.	Employee Opinion Listening (cases)	Job Performance Evaluation (persons)	Emergency Training (cases)	Qualified Supplier Assessment (cases)
2023	16	70	34	26
2024	16	140	34	117
2025	16	135	40	102

Health Management



To prevent occupational and adult diseases, which are gradually increasing due to lifestyle changes and chemical use, and to help employees lead healthy lives, we regularly survey and assess factors harmful to health. Through various assessments, we work to devise measures for areas needing improvement, and through health-promotion programs and individually customized Health Care Program operations, we actively support employees in working in a healthy and pleasant environment. In particular, we will continue intensive management of diseases that may occur in workers engaged in tasks with relatively high disease incidence, such as assembly, test runs, and machining night work, including noise-induced hearing loss, musculoskeletal disorders, and cerebrovascular and cardiovascular diseases.

Health Promotion Program

We operate a health-promotion program to prevent musculoskeletal disorders arising from repetitive work and heavy-object handling, as well as various adult diseases and cerebrovascular and cardiovascular diseases that are increasing due to aging, lack of exercise, and lifestyle changes. We run a walking program with a walking challenge and rewards for those who excel at body-fat reduction; based on annual comprehensive health checkups and other examination results, we assess disease-onset risk, classify risk groups (low/medium/high), and actively support employees in maintaining healthy lives through primary-care management (counseling, treatment, prescriptions) and dietary-improvement guidance (exercise coaching, low-salt diets, smoking-cessation clinics). We also operate seasonal-influenza vaccination, comprehensive health checkups, and medical-expense support each year for employees' families.

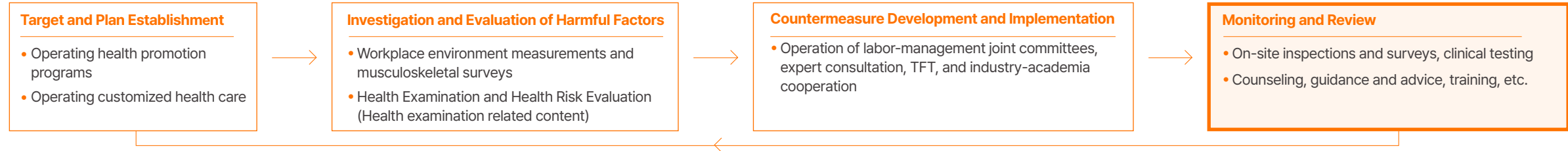
Customized Health Care Program

Hanwha Engine has formed a collaborative team linked with external experts and university-industry programs such as the Yonsei University Graduate School of Public Health, the Occupational and Environmental Medicine Center, and KOSHA, to operate a customized Health Care health-management program reflecting each individual's health characteristics. We have established and operate a wellness-clinic system with an exercise-prescription room and a fitness room equipped with physical-fitness diagnostic equipment and individually tailored exercise-coaching equipment. Workers with musculoskeletal pain or personal injuries can use a daily individualized exercise program (KEMA) in the exercise-therapy room after medical evaluation. For chronic-disease patients such as those with adult diseases, we operate a primary-care-doctor system with treatment and clinical tests, lifestyle-improvement guidance, and stress counseling.

Supplier Health Management

For employees of in-house partners, we work to prevent occupational diseases and manage personal illnesses through primary-care treatment, vaccinations, chemical-hazard assessments, and work-environment measurements. In particular, to prevent cerebrovascular and musculoskeletal diseases associated with employee aging, we conduct carotid-artery ultrasound and other examinations linked with the in-house primary-care system, and we invite external expert instructors to provide monthly Pilates and stretching education. We also partner with various medical institutions so that, in the event of an unexpected accident or illness, families and acquaintances can also receive convenience and various benefits.

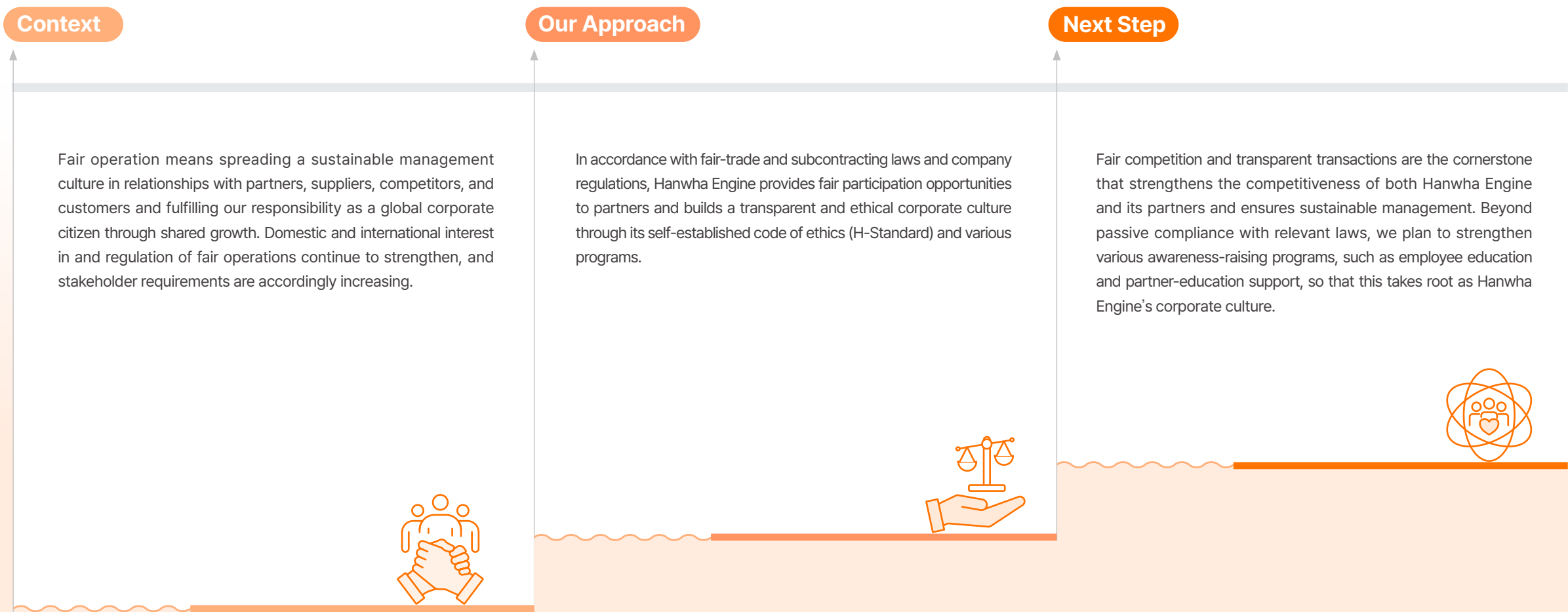
Health Care Management



Health Program Operation

Shared Growth

Management Approach

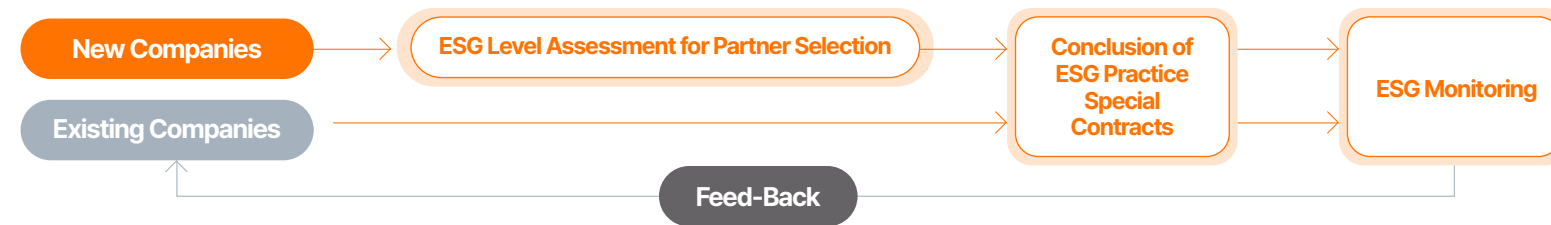


Supply Chain ESG Management Process



Since October 2015, to prevent suppliers' ESG issues in advance, Hanwha Engine has concluded an 'ESG Practice Special Agreement' as an attachment to the standard subcontracting master agreement. The agreement's main content consists of (1) human rights and labor, (2) safety and health, (3) environment, (4) ethics and fair trade, and (5) management systems, providing an ESG Guideline; in the event of a violation, the Sanctions Review Committee determines whether to impose sanctions, such as contract termination, transaction restrictions, and bid-participation restrictions, and takes sanction measures by deliberating and deciding on the type and level of sanction.

In addition, to strengthen the supply-chain ESG management system, when selecting new suppliers we reflect points in the evaluation table so that the ESG level can be assessed, thereby filtering out unqualified companies from registration in advance. Furthermore, we monitor compliance with the ESG Practice Special Agreement and operate improvement activities through feedback and a violation-reporting system, managing to prevent the occurrence of ESG Risk in advance.



Supplier Shared Growth

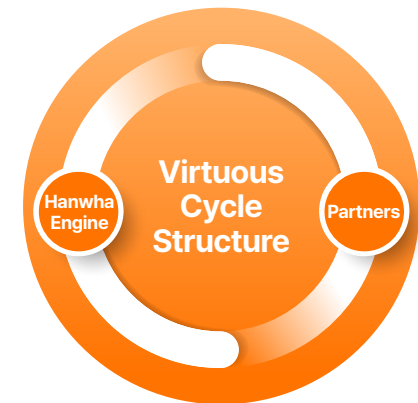


Hanwha Engine has selected the establishment of a 'virtuous-cycle partnership' system enabling shared growth with suppliers as its motto for shared growth. We operate various supplier-competitiveness programs and communication channels to achieve continuous growth and development with our suppliers.

Hanwha Engine's establishment of a 'virtuous-cycle partnership' means operating technology, quality, and management systems organically as a single system by strengthening all suppliers' technological capabilities and advancing their business systems. To this end, after identifying suppliers' actual needs through supplier visits, we conduct various communication activities, such as actively supporting their resolution using our available resources. We improve the system competitiveness of the entire supply chain (Supply Chain) and share profits back with suppliers, building an even stronger partnership.

Comprehensive Supplier Capability Assessment

To achieve our vision based on improving suppliers' capabilities and to strengthen win-win cooperative relationships through shared growth, we conduct an annual comprehensive capability assessment of suppliers of key engine components. The assessment is calculated by aggregating the scores of relevant departments in areas such as quality, purchasing, delivery, and shared growth, and incentives are provided to outstanding suppliers. For underperforming suppliers (below 60 points), we induce capability improvement through improvement-activity support from our quality-guidance team. In 2025, we assessed a total of 114 suppliers and selected 4 outstanding suppliers, supporting their continued capability building by providing shared-growth vouchers usable for consulting, education, and environmental improvement.



Establishing a virtuous cycle partnership system that enables co-prosperity with cooperating companies



Comprehensive Competency Evaluation Excellent Cooperating Company Award Ceremony

Supplier Safety, Health, and Welfare Support

Since 2012, we have promoted a safety and health win-win cooperation program each year to prevent accidents at in-house and external partners. In 2025, targeting 32 in-house and external partners, we carried out support programs aimed at preventing serious accidents at partners through safety and health seminars, the provision of items such as safety belts, and win-win support such as production-site safety inspections and risk-assessment support. In addition, to promote the health and welfare of partner employees, we operate a program linked with examination institutions so they can receive comprehensive checkups under the same conditions as Hanwha Engine employees. Going forward, as the parent company we will expand welfare support and fulfill our social responsibility and role to improve safety and health levels and foster a safety culture by cooperating voluntarily with our partners.

Creating Joint Opportunities with Partners

Localization Development Support

To increase partners’ sales and secure their competitiveness, we continuously pursue parts-localization development jointly with partners. In 2025, we succeeded in localizing 11 parts, enabling Hanwha Engine to secure cost competitiveness and partners to gain new sales growth. Going forward, to respond actively to environmental regulations and secure the competitiveness of eco-friendly parts, we plan to continuously pursue localization development with partners.

Benefit-Sharing Contract Conclusion

To support partners’ stable parts localization and diversification, we conclude benefit-sharing contracts of the prototype-purchase type with partners. The ‘benefit-sharing system’ is a system under the Act on the Promotion of Win-Win Cooperation between Large and Small Enterprises, in which the consigning company supports the consigned company in achieving jointly agreed goals such as cost reduction, and the resulting performance is shared between the two. For completing the HP SCR Reactor Assembly development benefit-sharing project carried out with Inhwa Precision Co., Ltd. in 2018, Hanwha Engine received the Presidential Award in the outstanding benefit-sharing company category in 2019.

Examples of Creating Joint Opportunities with Partners

PK Valve and LGIM Engine FVT (Fuel Valve Train) Localization Development

PK Valve Engineering (hereinafter PK Valve), in cooperation with Hanwha Engine, succeeded in the localization development of the Fuel Valve Train (FVT) applied to LGIM methanol-fuel engines.

Through about two years of development from 2023, PK Valve and Hanwha Engine completed the localization of the FVT in 2025. The FVT developed here is a core component that precisely controls the fuel supply and injection process of methanol engines to realize optimal combustion conditions, performing fuel-injection timing and quantity control and fuel-pressure maintenance and shut-off functions.

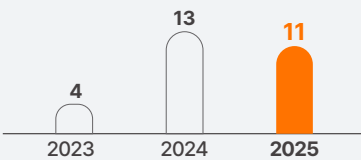
In 2024, this product obtained facility-use FTA approval from the engine designer Everlence, was applied to Hanwha Engine’s methanol production facility, and was installed in EVER2670 PJT, Hanwha Engine’s first methanol engine project. It was then verified for performance and reliability through a Shop Test, and in 2025 it obtained final FTA approval for the actual product.

Through this development, Hanwha Engine realized the localization of imported parts and strengthened cost competitiveness, while PK Valve secured a foothold for business expansion based on new parts development and certification. In addition, through this cooperation the two companies received the ‘Win-Win Honors’ awarded by the Ministry of SMEs and Startups to outstanding shared-growth institutions in 2025, and are recognized as having established a model case of win-win cooperation.

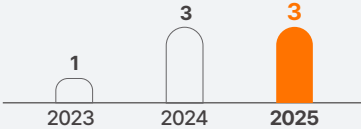


Win-Win Cooperation Activity Launch Ceremony

Component Localization Development (Unit: Case)



Performance Sharing System Promotion (Unit: Case)



Strengthening Supplier Competitiveness

Supplier Employee Education

Each year, Hanwha Engine supports partners' competitiveness by combining external training in partnership with professional engineers and in-house capability-building education. In 2025, through supplier quality-capability training, a total of 153 people from 91 partners completed courses on quality and engine technology, supporting the improvement of partner field staff's technical understanding and quality-management capabilities.

In addition, since 2022, to deepen understanding of the ship-engine manufacturing process and strengthen partner employees' pride, sense of belonging, and responsibility, we operate an engine-assembly site tour program for partner employees. In 2025, a total of 96 people from 27 partners participated over two sessions and toured engine-parts machining and manufacturing sites in person. Through such programs, Hanwha Engine plans to design and provide various programs to further solidify its partnership with suppliers.

Strengthening Supplier Communication

To strengthen communication with partners, Hanwha Engine operates a dedicated grievance-handling desk while building and operating various communication channels such as partner meetings, forums and workshops, management visits to partners, and a shared-growth newsletter. Through these, we gather partners' suggestions, difficulties, and ideas for strengthening cooperation, and based on close communication we continuously enhance mutual understanding and trust regarding shared growth.



Supplier Grievance-Handling Channel Operation

To listen to partners' difficulties and suggestions, we operate online and offline communication channels, with the Purchasing Planning Team serving as the contact point.



Engine Assembly Site Visit Program



Cooperating Company Meetings



Management Cooperating Company Communication Visits

Customer Satisfaction Management

Management Approach



Customer Satisfaction Management Framework

Hanwha Engine's emphasized quality policy is operated on the basis of 'creating customer value built on customers' trust in quality.' By securing differentiated quality competitiveness, providing customer-centered quality service, and strengthening a quality-oriented mindset, we enhance both pride in quality and customer value.

Responsibility for Products

Product Stability

To minimize customer inconvenience related to product defects, we have established defect-handling and product-liability-law response processes in accordance with relevant laws. Accordingly, we have built and operate a step-by-step system for responding to complaints and difficulties arising from product development through design, sales, use, and maintenance, and we continuously improve product stability.

Quality Management System

Hanwha Engine meets the quality requirements demanded by certification bodies and builds its Reputation and Pride through the continuous maintenance and improvement of quality requirements.

Quality Certification

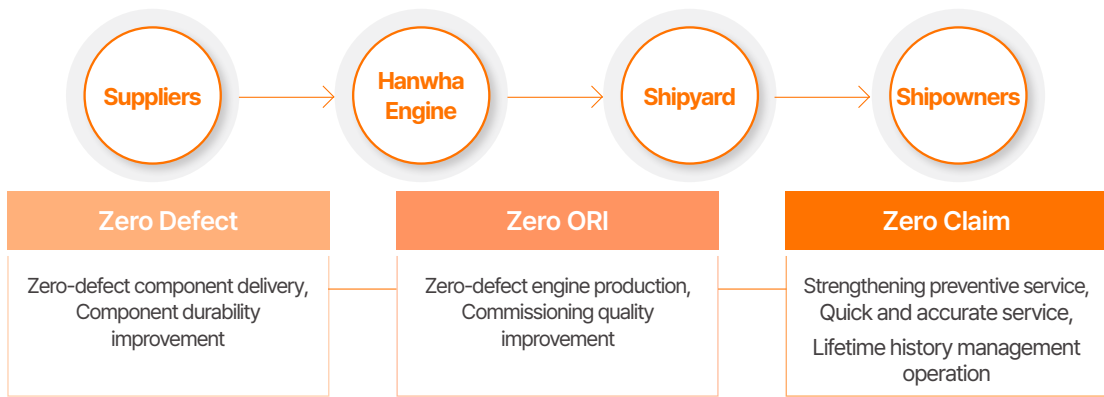
To secure customers' trust in our products, we obtained ISO 9001 certification and maintain quality-management-system certification for the design, manufacture, supply, and related services of products. KEPIC-MN and EN certifications have enabled us to qualify for the production of nuclear emergency generators and the supply of auxiliary equipment, and we carry out nuclear-power-related business.

Div.	ISO 9001 : 2015	KEPIC-MN	KEPIC-BN
Cert NO.	A 1272	MN-243	EN-177
Certification Bodies	Korean Classification Society	Korean Electrical Association	Korean Electrical Association
Certification Scope	- Design and manufacture of diesel engines for ships and internal-combustion power generation - Engine maintenance and repair services; sales of ship and power-plant parts	Manufacture of Class 3 piping sub-assemblies; on-site installation of Class 3 items for diesel-generator units (on-site audit condition)	Manufacture of Class 1 electrical diesel generators (excluding design); factory assembly and installation of related items (on-site audit condition)

3 Zero+ Quality Innovation Movement

Based on the quality policy of creating customer value built on customers' trust in quality, the zero-defect, zero-indication, zero-fault '3 Zero+' Quality Innovation movement is becoming a global standard for diesel-engine quality and service, and as Hanwha Engine's proprietary quality-innovation movement, it is the source of creating premium engines that no one can match.

3 Zero+ Quality-Innovation Movement Framework



*Zero Defect : Reliability of components and securing quality of supplier components

*Zero ORI (Owner Request Item) : Securing complete zero-defect quality in engine assembly and commissioning processes

*Zero Claim : Reducing customer claims through trust and confidence in engines

3 Zero+ Quality Indicators

Indicator	2023	2024	2025
Zero Defect	1.20	1.34	1.14
Zero ORI	25.5	17.0	19.9
Zero Claim	9.44	13.20	11.24

*Zero Defect : Number of defects occurring in components received from suppliers

*Zero ORI : Number of customer comments generated during assembly and commissioning processes

*Zero Claim : Number of claims received after products are delivered to customers

CS Responsiveness and Product Service Provision

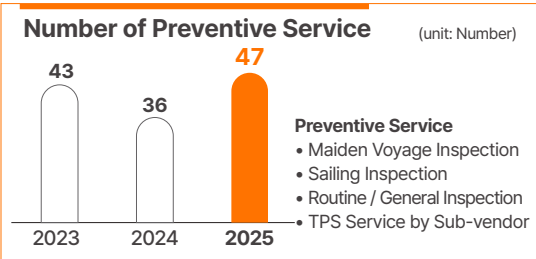
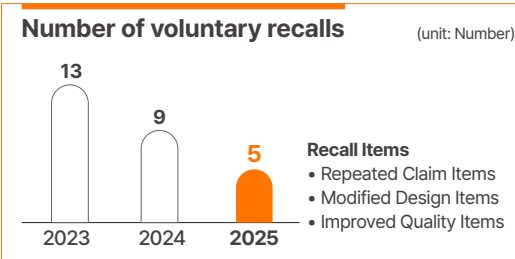


To provide maximum satisfaction with the performance, maintenance, and service of products delivered to customers, we receive customer requests through a unified service.engine@hanwha.com account and process and manage them so that the service the customer wants is provided within 24 hours through communication. Through multiple Service networks, we provide the service customers want anywhere in the world. We have built a Pro-Active service to prevent defects, conducting activities such as on-board and voyage inspections, and by establishing a Life-time Care Service operating system, we conduct on-board inspection service for out-of-warranty engines and technical briefings to identify shipping companies' Needs, providing customers with periodic feedback and product-service information.

Proactively Preventing Customer Problems



For continuous quality management and building trust with customers, we conduct voluntary product Recall. We also perform Preventive Service to prevent potential defects in advance and respond proactively to customer impact, thereby improving customers' perceived satisfaction.



Information Provision Related to Products and Services

The engine operation manual provided when an engine is supplied consists of a total of 5 volumes and contains detailed information such as the disassembly and assembly procedures required during engine operation, the characteristics of normal and abnormal conditions during operation and corresponding measures, and an essential Spare/Tool List, among others. We also regularly provide the latest technology trends, and we promote customer convenience by producing, in the customer's preferred language, labels on key engine functional parts for safe operation and usage precautions.

Providing close, customized on-site support through dedicated site offices at shipyards

Hanwha Engine has established 3 Sites (2 domestic, 1 overseas) at major domestic and overseas hubs and shipyards, where dedicated personnel reside to provide customer-tailored service. When a customer's technical-support request or problem arises, we check the details immediately on site and provide rapid, immediate technical support. To proactively prevent problems, we also conduct capability-improvement training on the technical and operational skills required by shipyards and shipowners, contributing greatly to improving customers' perceived satisfaction.

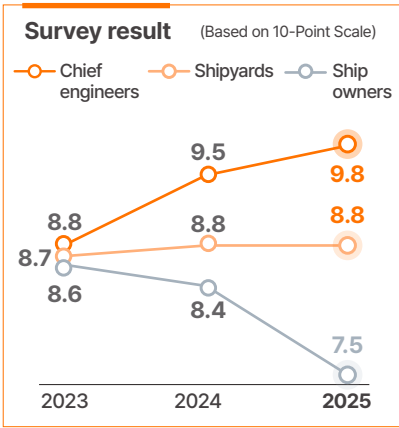
Service Quality Improvement Through Customer Satisfaction Surveys



In the customer-satisfaction service area, we conduct periodic customer-satisfaction surveys to provide differentiated, customer-friendly attentive service. We compile customer requirement items, designate them as long-term focus-management items, and continuously improve and enhance them.

Customer Survey Results

Considering customer characteristics, Hanwha Engine visits customers throughout the year to identify perceived satisfaction and requirements through open communication, and conducts surveys at least once a year through on-board service and customer-visit activities. By analyzing the collected information and customer requirements, we assess the current level and establish and implement improvement measures, continuously enhancing our products, services, and defect-handling capabilities. In particular, through shipowner Promotion (customer-visit activities) we identify customer complaints and VOC in advance, handle them immediately, and feed back the results, thereby improving customers' perceived satisfaction and strengthening our product and service capabilities.



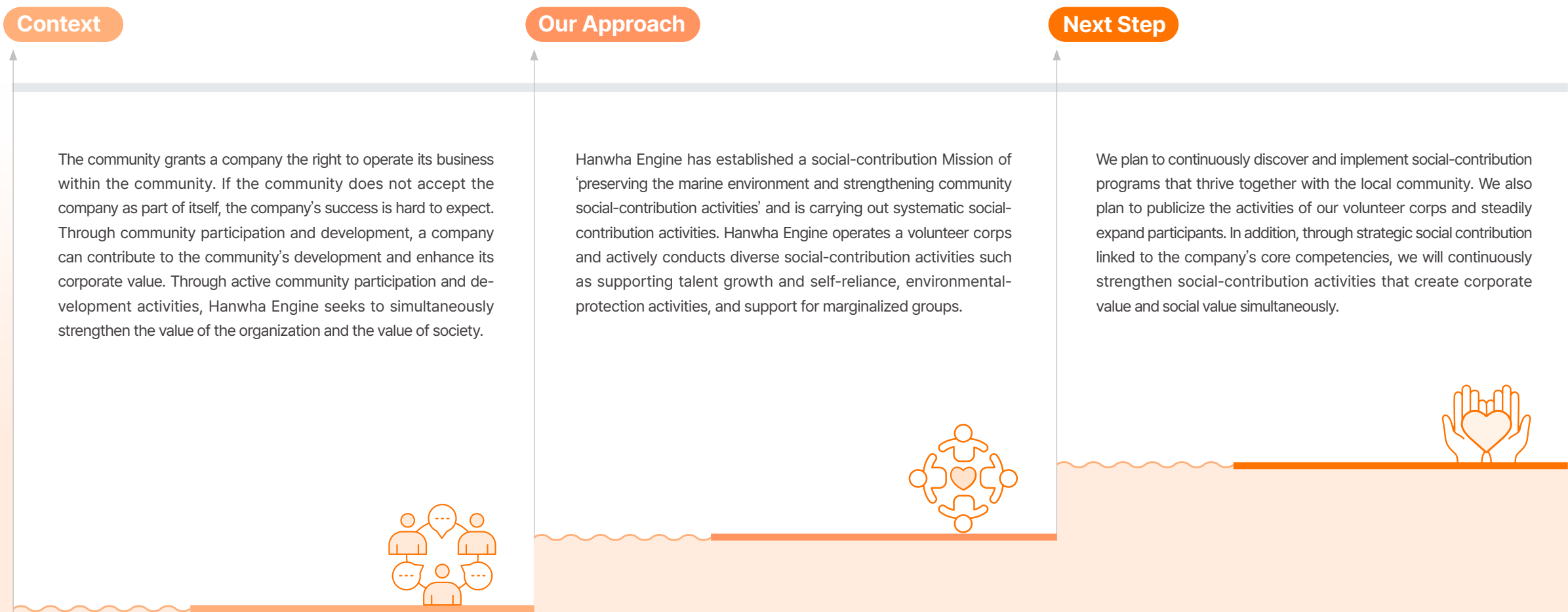
Protection of customer information



We have established and operate an 'Information Security Policy' to prevent customer harm from customer-information leakage. The information-security policy aims to maintain competitiveness by protecting the company's information assets from various internal and external threats, and among the targets of information security it places the highest importance on customer information. All employees receive training to protect company and customer information, and monthly security inspections are conducted. Thanks to these information-protection activities, not a single complaint regarding customer-information protection violations or loss of customer data occurred last year.

Social Contribution

Management Approach



Social Contribution Activity System

Vision and Mission

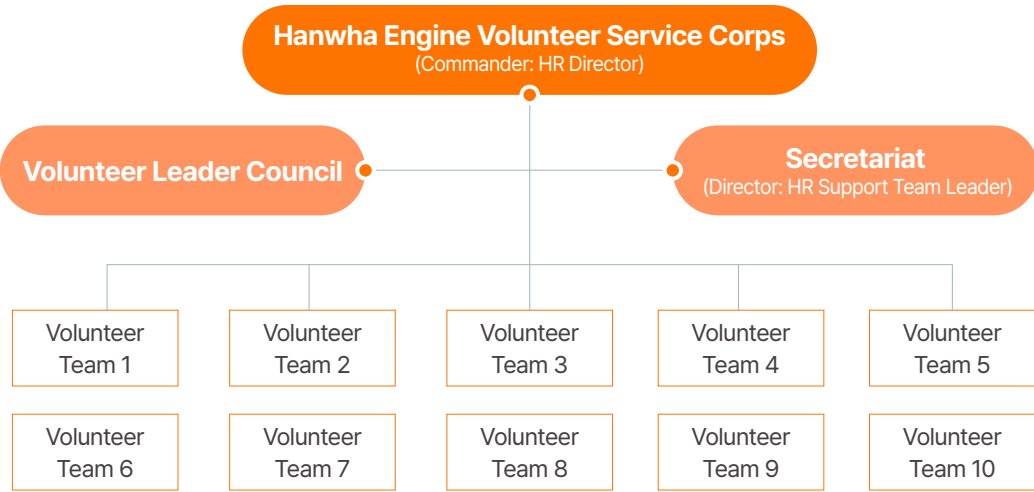
To achieve the vision of “Global ESG Leading Company,” Hanwha Engine has established a mission of “Conservation of the Marine Environment and Strengthening of Local Community Contribution Activities” and is implementing systematic social contribution activities.



Social Contribution Organization

Hanwha Engine Volunteer Service Corps

The Hanwha Engine Volunteer Corps, led by the HR head as corps leader, organizes all employees into 10 volunteer teams to carry out community sharing-and-volunteering activities. By selecting a volunteer leader for each team and operating a volunteer-leaders’ council, we gather employees’ opinions on volunteer activities and set direction, and through review and consultation on the operation of the volunteer fund we carry out transparent and efficient volunteer activities.



Beneficiary Satisfaction Surveys and Customized Social-Contribution Activities

We conduct satisfaction surveys of the support effect and performance with the heads of children’s group homes to pursue continuous improvement. We received feedback that self-reliance-preparing children received resources needed for graduation and employment, that the support was very useful in meeting children’s needs in difficult environments and improving their happiness, and that it gave them hope for future self-reliance. Improvement points to enhance the support program’s effectiveness were also surveyed and subsequently reflected in the operation of the support program.

Building Communication Channels with the Local Community

Operation of the Bongam Tidal Flat Eco-Learning Center and a Regular Council

We established a regular council (April 2021) with the Bongam Tidal Flat Eco-Learning Center, which is operated under consignment by the NGO Masan-Changwon-Jinhae Federation for Environmental Movements, to discuss cooperation measures and gather opinions.

Conclusion of a Joint Cooperation Agreement for ‘Saving the Clear Masan Bay’

To invigorate ‘Saving the Clear Masan Bay,’ we concluded a joint cooperation agreement (April 13, 2021) with Changwon City, civic groups, businesses, and government agencies, and we are striving to reduce pollution in the Masan Bay special management sea area, including participating in sea clean-up activities.

Major Social-Contribution Activities

The Hanwha Engine Volunteer Corps’ diverse social-contribution activities continue without rest, supporting talent growth and self-reliance, environmental-protection activities, and support for marginalized groups for a community culture of living together. From the CEO to staff, Hanwha Engine employees participate in volunteering voluntarily and enthusiastically. By maintaining close partnerships with the local community, NGOs, and other organizations and sharing each other’s capabilities and know-how, we practice higher-level social-contribution activities. Moreover, we strive to pursue fundamental social change by providing systematic self-reliance support for the problems of vulnerable groups, rather than temporary or charitable measures.

Community Chest Support Project Activities and Donations

Through cooperation with the Gyeongnam Community Chest, we support protected children and youth and local low-income groups, and we find crisis households struggling to make a living due to sudden circumstances and support their living costs to help them escape crisis situations.

Classification	Bongam Tidal Flat Observation Facility Support	Support for Gyeongnam Police Agency Dagaon3	Safe Return Home Street Creation Project
Fund Type	Company Donation (Matching Grant)	Company Donation (Matching Grant)	Voluntary Employee Salary Donation (463 people)
Content	Replacement and repair of learning guidance signage	Cold-weather supplies support	Installation of logo projectors in areas with weak public security
Donation Recipient	Gyeongnam Public Interest Foundation	Gyeongnam Women’s Welfare Counseling Center Facility Council	Gyeongnam Social Welfare Joint Fundraising Council
Target	Bongam Tidal Flat Ecological Learning Center	Families of crime victims	Changwon City area
Donation Amount	₩5,000,000	₩3,000,000	₩20,000,000

Supporting Talent Growth and Self-Reliance

Children’s Group Home Operation Support

We carry out happiness-sharing activities so that children in need of protection due to family breakdown, neglect, abuse, poverty, abandonment, and the like can grow up in a home-like residential environment. By forming partnerships with children’s group homes, small-scale child-protection facilities that provide protection and care services tailored to each child’s characteristics, we provide not only financial support but also experiential activities, delivering dreams and hope to growing children. We support 4 children’s group homes in the Changwon area, and through Hanwha Engine’s support, the children in these homes pursue opportunities for growth and self-reliance through academy classes to reinforce learning ability and various self-reliance programs.

Safe Return-Home Path Project

Using funds donated through the Gyeongnam Community Chest, we install logo projectors (LED landscape lighting) in dark alleys to prevent nighttime crime and improve the walking environment, thereby providing citizens with psychological stability and a safe path home. Installed in the Jungang-dong and Sangnam-dong areas of Changwon City, it raises local residents’ perceived safety and contributes to creating a safer living environment.



Community Development and Participation

Marine Environment Protection Activities

Hanwha Engine, as a company specializing in the production of marine diesel engines, actively participates in sea-centered environmental-protection activities. The Bongam Tidal Flat eco-forest is adjacent to Hanwha Engine and holds a precious natural environment that must be preserved; believing that protecting it is also a corporate social responsibility, our employees formed a volunteer corps and have continuously participated in eco-forest cultivation activities from the year 2000 to the present. In particular, we plant trees where migratory birds visiting the Bongam tidal flat can perch and rest, repair worn deck roads, and maintain the learning center, promoting the convenience of local residents who visit the Bongam Tidal Flat eco-forest. Every year, on Ocean Day and International Coastal Cleanup Day, we gather to collect discarded styrofoam, empty bottles, and plastic in the Changwon Namcheon area near Hanwha Engine's shipping pier, joining forces in clean-sea cultivation activities.

Sharing Love Through Blood Donation

Hanwha Engine employees practice sharing through blood donation. Employees who participate donate their blood-donation certificates for colleagues and their families who need emergency transfusions, doubly practicing true sharing.

Volunteer Club 'Little Love Society'

Since the company's establishment in 2000, the activities of the Little Love Society volunteer club, voluntarily created by employees, have continued. On the third Saturday of every month, the Little Love Society voluntarily uses its weekend to visit nearby nursing homes and youth-support facilities to volunteer and share love.

Leader Volunteer Activities

All Hanwha Engine employees, of one mind, hold a sense of social responsibility, by doing things for someone around us or that raise the value of society, to grow into a global No.1 engine company. To put this into practice, since 2019, starting with leaders setting an example, executives, team leaders and volunteer-corps leaders, and in-house volunteer-club members have visited vulnerable nursing facilities in the region to support labor-volunteer activities such as street-tree maintenance, paint repair, landscaping, and vegetable-garden cultivation, while simultaneously conducting sponsorship activities such as interior-cost support and the purchase of treatment equipment to renovate aged facilities. We plan to expand these activities beyond leaders to all employees and continuously broaden the scope of volunteering.



Governance

Governance
Ethics & Compliance

Hanwha Engine is making efforts to equip the governance structure with transparency, soundness, and stability in order to protect shareholder interests, while at the same time endeavoring to implement decision-making and work performance in a lawful and ethical manner.

Governance



Hanwha Engine pursues the enhancement of corporate value and maximization of shareholder value by practicing board-centered responsible management and transparent management. The Board of Directors, as the highest decision-making body on management, represents the interests of investors while overseeing and resolving key management issues with the objective of achieving the Company’s long-term growth. In addition, management actively reflects the expectations and requirements of various stakeholders in its major decision-making processes, and engages in timely and transparent disclosures and IR activities regarding significant management changes and business performance.

Composition of Board of Directors

As of the reporting date, the Board of Directors consists of three executive directors, one non-executive director, and three independent directors. Directors are appointed at the General Meeting of Shareholders in accordance with applicable laws and regulations and the Articles of Incorporation. Independent directors account for 43% of the Board, thereby maintaining its independence. For efficient decision-making, the Board operates several committees, including the Audit Committee, the Independent Director Nomination Committee, and the Related Party Transactions Committee. Each committee is composed solely of independent directors, ensuring decision-making that is independent from management and controlling shareholders. The Independent Director Nomination Committee enhances the Board’s expertise and independence by reviewing and recommending candidates based on their professional qualifications across economic, social, and environmental fields, as well as their independence from the Company.

Composition of Board of Directors

Classification	Name	Major Career	Role	Appointment Date
Internal Director	Kim Jong-seo	Hanwha Engine CEO	Chairman of the Board	2025.10.24
	Kang Min-wook	Head of Production Division, Hanwha Engine	-	2026.03.26
	Kim Jin-young	Head of Planning, Hanwha Engine	-	2026.03.26
Non-Executive Director	Lim Sung-bin	Head of Management Support Office, Hanwha Impact	-	2026.03.26
Independent Director	Kim Yong-hwan	Seoul National University Professor of Naval Architecture and Ocean Engineering	Chair of the Independent Director Candidate Recommendation Committee	2026.03.26
	Yu Ga-young	Kyung Hee University Professor of Environmental Science and Engineering	Chair of the Internal Transaction Committee	2026.03.26
	Kim Jong-hwan	Yonsei University Professor of Accounting	Chair of the Audit Committee	2026.03.26



Status of Board Committees

Committee	Audit Committee	Independent Director Candidate Recommendation Committee
3 Independent Directors • Audit of financial statements, approval of external auditors, evaluation of internal accounting management system operation, etc.	3 Independent Directors • Recommendation of Independent Director candidates	3 Independent Directors • Approval of large-scale related party transactions pursuant to the Fair Trade Act

* For the latest information on the composition and operation of the Board of Directors, please refer to the Company’s Annual Report and Quarterly/Semi-Annual Reports disclosed on the Financial Supervisory Service’s electronic disclosure system (<http://dart.fss.or.kr>).

Operation of Board of Directors



The Board of Directors deliberates, resolves, and provides checks on major management matters related to the economy, society, and environment, and resolves matters stipulated by law or the articles of incorporation, matters delegated by the general shareholders’ meeting, and key matters concerning basic management policy and business execution. The CEO concurrently serves as chair of the Board and, delegated with overall business operations, has built a rapid decision-making system.

The Board resolves major agenda items and reflects in its decision-making the opinions of shareholders and other stakeholders gathered through the general shareholders’ meeting and IR activities, and supervises directors’ execution of duties. The Board’s decision-making authority cannot be exercised by proxy, and a director with a special interest in a particular matter is restricted from exercising voting rights on that agenda item. All directors are permitted to participate in resolutions by means of communication that simultaneously transmits and receives voice, granting equal opportunity to express opinions. In 2025, the Board deliberated and resolved 18 major agenda items, including approval of executive remuneration, approval of new investments, and participation in a subsidiary’s paid-in capital increase, and reviewed 7 reporting items such as quarterly management results. In this way, all grievances that could become issues due to management problems are reported to the Board.

Key Activities of Board of Directors

Session	Date of Holding	Agenda Content	Number of Independent Directors in Attendance / Total
2025-1st	2025.02.07	Approval of FY25 financial statements and business report, etc. (6 items)	3 (3)
2025-2nd	2025.02.25	Calling of the 26th General Shareholders’ Meeting and approval of its agenda, etc.	3 (3)
2025-3rd	2025.04.21	Business performance of 1Q25	3 (3)
2025-4th	2025.05.30	Amendment of Executive compensation regulations, etc. (2 items)	3 (3)
2025-5th	2025.07.24	Business performance of 2Q25, etc. (2 items)	2 (3)
2025-6th	2025.09.03	Setting the date for the Extraordinary General Meeting and convocation with agenda approval (3 items)	3 (3)
2025-7th	2025.10.24	Appointment of the Chairperson and convener of the Board, etc. (2 items)	3 (3)
2025-8th	2025.11.07	Business performance of 3Q25	3 (3)
2025-9th	2025.12.12	Appointment of compliance officer, etc. (2 items)	3 (3)
2025-10th	2025.12.19	Participation in a paid-in capital increase of a subsidiary	3 (3)

Evaluation and Compensation



The Board of Directors and its committees conduct annual self-evaluations of their activities, including attendance rates and overall performance.

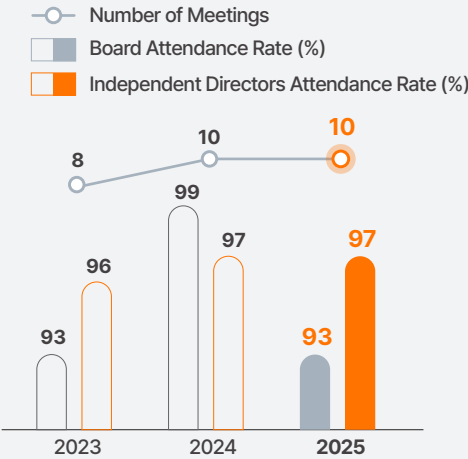
Directors’ remuneration is paid within the limits approved by the General Meeting of Shareholders. To ensure independence, independent directors are compensated only with fixed remuneration and reimbursement for domestic and overseas business travel expenses, and do not receive performance-based compensation.

Shareholder Composition and Communication

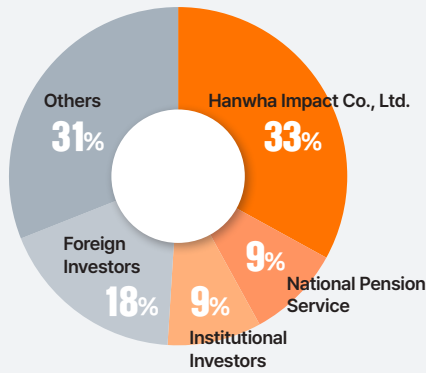


As of Dec 2025, the largest shareholder is Hanwha Impact Co., Ltd., holding 27,345,628 shares (32.77%). Hanwha Engine holds an annual General Meeting of Shareholders to actively reflect shareholders’ views on key corporate decisions and management matters. To ensure that shareholders can exercise their voting rights in a fair and convenient manner, the Company has implemented various measures, including the adoption of an electronic voting system, solicitation of proxy voting, and participation in the voluntary compliance program for dispersed shareholder meetings. In addition, the Company actively communicates with shareholders by timely disclosing key management matters through its website and the Financial Supervisory Service’s electronic disclosure system.

Performance of Board of Directors



Shareholder Composition



*Reference Date: December 31, 2025

Ethics and Compliance

Business Ethics Management



Hanwha Engine fulfills its responsibility as a global corporate citizen so that all stakeholders surrounding the company, including shareholders, customers, partners, and competitors, can thrive together and pursue sustainable growth. Domestic and international interest in and demand for fair and transparent corporate management, including fair competition, continue to strengthen, and whether a company responds appropriately greatly affects its survival and sustainable growth. Above all, Hanwha Engine devotes much effort to win-win and shared growth with its partners. In accordance with fair-trade and subcontracting laws and company regulations, Hanwha Engine provides fair and transparent participation opportunities to partners, and through its self-established code of ethics and various compliance programs, it strives to foster an ethical corporate culture. We are confident that fair competition and transparent transactions will be the foundation that strengthens the competitiveness of both Hanwha Engine and its partners and ensures sustainable growth. Beyond passive compliance with relevant laws, Hanwha Engine continuously carries out various efforts, such as employee education, partner-education support, and dissemination of its code of ethics, so that ethics and compliance management take root as Hanwha Engine’s corporate culture.

Code of Conduct



Even before related laws were enacted, Hanwha Engine has enacted and revised a code of ethics and detailed rules covering anti-corruption, conflict-of-interest prevention, fair competition, and the creation of a sound organizational culture (prohibiting sexual harassment, bullying, etc.), making them the principles for employees’ work, and it continuously supplements them by maintaining the rules in line with the enactment and amendment of laws. Furthermore, it strives to spread an ethical culture by concluding ESG-practice special agreements with partners. In 2025 it strengthened its code-of-ethics standards through a full revision of the code of ethics (attitudes toward shareholders and investors, attitudes toward customers and partners, responsibilities toward employees and society, etc.), and through anti-corruption and compliance with essential laws, it will continue to practice a high level of corporate ethics.

Compliance Management System



Hanwha Engine operates a compliance-control system and, through various compliance activities, practices legal compliance and corporate ethics, pursuing sustainable and sound development based on customer trust. Through the compliance-control system, we will widely disseminate management’s commitment to compliance and build and continuously improve a framework for realizing ethics and compliance management, including education, communication among employees, inspection and monitoring, and the maintenance of rules and manuals. Since 2012, Hanwha Engine has introduced a compliance-control system, including appointing a compliance support officer, and actively carries out various activities to reduce the risk of legal violations (no criminal or administrative sanctions over the past 5 years). Furthermore, through the operation of a Compliance Program and a prior-business-consultation system, we will prevent the legal risks we face.

Compliance Management System



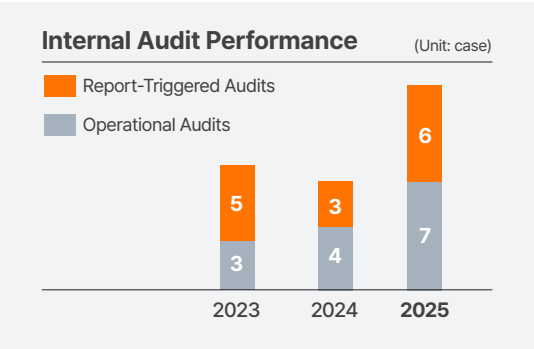
At the conference hall of its Changwon headquarters, with employees in attendance, Hanwha Engine held a ‘Compliance Management Declaration Ceremony,’ and the CEO and management declared their commitment to practicing compliance management. At the event, the CEO emphasized that the essence of compliance management lies not merely in complying with laws but in creating an organizational culture that practices ethical judgment and right action, and declared the company’s compliance-management principles. In addition, Hanwha Engine’s management deeply recognized its compliance-management responsibility and pledged to faithfully practice the management principles. This declaration ceremony will be an occasion for Hanwha Engine to establish a foundation for sustainable growth amid a rapidly changing management environment and strengthening regulations, and to further solidify the trust of stakeholders such as shareholders, partners, and employees.



Internal Audit and Internal Reporting



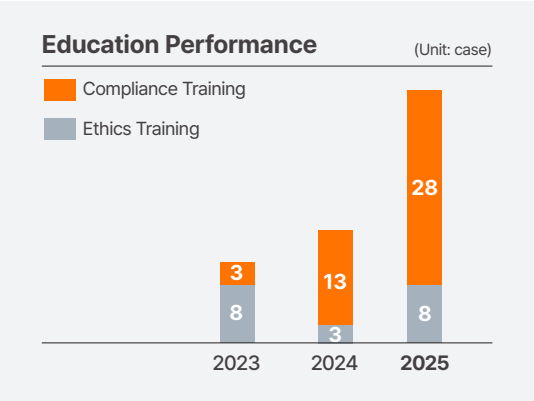
Through various audits, such as management-diagnosis audits and ad hoc audits prompted by internal and external reports, Hanwha Engine improves processes, investigates violations of its code of ethics and laws, and, when necessary, disciplines violators, striving to embed compliance and ethics management. Meanwhile, internal reports are received through the cyber reporting center on the website and the internal reporting system. The Hanwha Engine Cyber Reporting Center is open to both employees and outsiders, and covers violations of laws, the code of ethics, human rights, corruption (such as receiving money or valuables), fair trade, and other internal rules, as well as other improper acts. Employees and external parties can report corrupt acts or employee misconduct without any burden, either under their real name or anonymously, and the reporter’s identity and report contents are strictly kept confidential. Internal audits are conducted on a regular and ad hoc basis, with a total of 13 conducted in 2025.



Dissemination of Compliance & Business Ethics Culture



Hanwha Engine conducts annual compliance and ethics-management education for all employees, and provides education on individual laws, such as the code of ethics, fair trade and subcontracting, trade-secret protection, and other essential laws, for relevant personnel. In addition, it collects code-of-ethics pledges from 469 people, including executives, general staff, and professional position-holders, to enhance leaders’ education effectiveness and accountability. Employees at the team-leader level and above and management prepare and submit a conflict-of-interest statement each year, thereby raising their own understanding of compliance and ethics management and encouraging them to practice it. Also, on holidays such as Lunar New Year and Chuseok, we send a CEO letter to all partners urging compliance with our code of ethics, striving to spread and embed a compliance and ethics culture. As a measure to strengthen education, we implement a systematic education system that considers educational expertise, diversity, and the audience’s level.



APPENDIX

- ESG Data
- Memberships
- GHG Emissions Verification Statement
- Third-Party Assurance Statement
- GRI Index

ESG Data

MWh/KRW million

Category		Unit	2023	2024	2025
Key Economic Performance	Sales	KRW million	854,384	1,202,205	1,371,057
	Operating Profit	KRW million	8,729	71,532	130,066
	Net Income	KRW million	-426	79,160	173,753
Growth Indicators	Sales Growth Rate	%	11.8	40.7	14.0
	Net Profit Growth Rate	%	98.9	18,682	-119.5
	Total Assets Growth Rate	%	18.9	24.3	20.0
Stability Indicators	Current Ratio	%	108.6	133.8	168.8
	Debt-to-Equity Ratio	%	407.2	259.3	204.9
	Fixed Ratio	%	214.7	159.7	119.4
	Debt-to-Capital Ratio	%	18.6	5.2	3.1
Profitability Indicators	Operating Profit Ratio	%	1.0	6.0	9.5
	Net Profit Ratio	%	-0.0	6.6	12.7
	ROA	%	-0.04	5.6	10.2
	ROE	%	-0.2	20	31
Activity Indicators	Total Capital Turnover	Times	3.8	3.1	2.5
	Receivables Turnover	Days	37	43	44
	Inventory Turnover	Days	173	128	112
Corporate Tax	Continuing Income Tax	KRW 100 million	-5	-18	-530
R&D	R&D Expenses	KRW 100 million	32	38	52
	R&D-to-Sales Ratio	%	0.37	0.31	0.38
Dividends	Earnings per Share	KRW	-6	968	2,071
	Dividends per Share	KRW	-	-	-
	Dividend Rate	%	-	-	-
	Total Dividends	KRW 100 million	-	-	-
Labor Costs	Total Annual Salary	KRW 100 million	607	643	879
	Average Annual Salary	KRW million	77	78	101

Environmental Performance

Category		Unit	2023	2024	2025
Materials	B-A	kℓ	5,524	5,852	6,418
	LNG	1000m'	1,136	1,831	1,878
	Gasoline (vehicles)	kℓ	43	27	21
	Diesel	kℓ	50	44	58
	Kerosene	kℓ	45	46	52
Energy	Electric Power	MWh	34,141	36,152	37,302
	Electric Power/Sales	MWh/KRW million	0.04	0.03	0.03
Energy Reduction	Amount	MWh	104	127	72
	Cost	KRW million	19	25	11
Water	Industrial Water	m'	175,649	227,735	248,588
GHG Emissions	SCOPE1	1000tCO2eq	21.8	25.7	27.9
	SCOPE2	1000tCO2eq	15.7	16.6	17.1
	GHG Intensity	tco2/KRW million	0.04	0.04	0.03
Air Pollutants	Dust	mg/m'	1.3	1.2	1.0
	Total Hydrocarbons (THC)	ppm	23.0	11.0	17.4
Wastes	Incineration	ton	460	554	465
	Recycle	ton	2,993	4,008	5,267
Wastewater	Wastewater Treatment	m'	5.0	0.0	11.6
By-products Recycling	Scrap Metal, Processed Chips	ton	955	1,221	1,183
	Copper Scrap	ton	4.0	6.0	3.5
	Waste Wood	ton	549	637	620
Environmental Regulations Compliance	Non-monetary Sanctions	cases	0	0	0
	Monetary Sanctions	cases	0	0	0
	Fines	KRW million	0	0	0

ESG Data

Social Performance

Workforce Status					
Category		Unit	2023	2024	2025
Total number of employees	Executives	person	7	11	14
	Female Executives	person	0	0	0
	Employees	person	801	835	864
By business area	Office Workers	person	384	435	453
	Technicians	person	424	411	425
By employment type	Regular	person	779	810	833
	Non-regular	person	29	36	45
	Non-regular Employees Ratio	%	3.7	4.3	5.1
By age	Less than 30	person	120	138	174
	30 to 50	person	498	501	498
	More than 50	person	190	207	206
Length of service	Average Length of Service of Male	Year	17	17	14
	Average Length of Service Female	Year	5	6	5
	Retirement Rate* of Male	%	5.3	1.4	7.4
	Retirement Rate of Female	%	3.6	0	10.5
	Voluntary retirement*	%	5.3	1.4	3.2
Labor union	Employees Eligible for Labor Union**	person	485	504	557
	No. of Members	person	415	402	416
	Membership Rate	%	85.6	79.8	74.7
Female staff	No. of Female Employees	person	40	44	57
	Female Employee Rate	%	5.0	5.2	6.5
Employment of the Disabled	No. of Employees with Disability	person	15	16	14
	Employees with Disability Rate	%	1.9	1.9	1.6
R&D personnel	No. of R&D Employees	person	32	36	26
Managerial (Team Manager and above)	No. of Manager	person	45	53	61
	Female Manager	person	0	1	1
	Female Manager Rate	%	0	1.9	1.6

* Retirement rate = No. of turnover/No. average employees (annually)
** Eligibility for union membership: technical positions and special-service positions
*** Compensation provided in the equal standard for both male and female employees

Welfare & benefits						
Category		Unit	2023	2024	2025	
Welfare expenses per employee		KRW million	20.1	24.0	23.0	
Paid Time Off Ratio		%	98.1	89.1	76.1	
No. of Parental Leaves	Male	Person	11	5	6	
	Female	Person	1	5	2	
Return-to-Work Rate of Employees Following Parental Leave		Return Rate	%	75.0	100.0	100.0

* Return-to-Work Rate = (Number of employees who returned to work during the reporting year after parental leave ÷ Number of employees scheduled to return to work during the reporting year after parental leave) × 100

Education & Training					
Category		Unit	2023	2024	2025
Costs of Education & Training per Person		KRW 1,000	150	871	773

Health & Safety					
Category		Unit	2023	2024	2025
Accident Rate*	Serious Accident Rate	%	0	0	0
	Direct Accident Rate	%	1.26	0.59	0.45
	Supplier Accident Rate	%	1.41	0.80	0.47

*Types of injuries, injury frequency rate, occupational disease incidence rate, lost workday rate, absenteeism rate, number of work-related fatalities
*Workers with high incidence or risk of occupational disease
*Accident rate calculation: No. of victims / No. of employees × 100

Results of Supplier Satisfaction Survey in Shared Growth Activities					
Category		Unit	2023	2024	2025
Trade Relationship		%	96	97	96
Collaborative Relationship		%	72	80	81
Shared Growth System		%	93	92	95
Total (Average)		%	87	90	91

* Satisfaction Rate (%): Percentage of respondents who selected "Satisfied" or "Very Satisfied" (ratings of 4 or 5) out of the total number of respondents for each survey question.

Supplier Support					
Category		Unit	2023	2024	2025
Supplier Support	EHS Support	No. of suppliers	30	30	32

ESG Data

Customer Satisfaction					
Category		Unit	2023	2024	2025
Customer Satisfaction	Chief Engineers (End-user)	Point	8.8	9.5	9.8
	Ship Owners	Point	8.6	8.4	7.5
	Shipyards	Point	8.7	8.8	8.8

Corporate Social Responsibility (CSR)					
Category		Unit	2023	2024	2025
Donations		KRW 100 million	909	20	28
Volunteer hours per employee		hours	0.1	0.2	0.2
Employee participation rate		%	57.1	53.9	52.7

Violations of Laws & Regulations					
Category		Unit	2023	2024	2025
Amount of major fines		KRW million	0	0	0
No. of non-financial sanctions		Cases	0	0	0
No. of cases resolved through dispute resolution system		Cases	0	0	0

Memberships

Category	Name of Association/Society	Remarks
1	Korea Fair Competition Federation	
2	Korea International Trade Association	
3	Korea Customs Logistics Association	
4	Korea Federation of Combustion Engines	
5	The Korean Society of Marine Engineering	
6	Korean Nursing Association	
7	Korea Marine Equipment Association	
8	Construction Association of Korea	
9	Korea Electric Association	

Contribution to the Sustainable Development Goals (SDGs)

Hanwha Engine will contribute to implementing the Sustainable Development Goals (SDGs) based on its business and enhance both itself and social values.



The UN SDGs (Sustainable Development Goals) are a set of international targets adopted by the UN in 2015, outlining 17 goals to be achieved by 2030. These goals include poverty, hunger, health, education, gender equality, energy, and climate action, promoting balanced development across economic, social, and environmental dimensions.

Network

Domestic

- Head Office / Plant: 67 Gongdan-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do
- Geoje Office (Hanwha Site): 3370 Geoje-daero (Aju-dong), Geoje-si, Gyeongsangnam-do, Hanwha Ocean
- Geoje Office (Samsung Site): 80 Jangpyeong 3-ro, Geoje-si, Gyeongsangnam-do, Samsung Heavy Industries
- Busan Office : 659 Jungang-daero, Busanjin-gu, Busan-si
- Pangyo Office : 6 Pangyo-ro 319beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do•SEAM : Husøyvegen 31, 4262 Avaldsnes, Norway

Overseas

- Europe Office: Heldenkampsweg 100, 8 O.G, Hamburg, Germany
- Greece Office: Amfitheas Avenue 2, Nea Smyrni, 17122, Athens, Greece
- Singapore Office: 78 Shenton Way, #16-04, Singapore 079120
- Shanghai Office: Room C, 23F, Huadu Mansion, #828 Zhangyang Road, Pudong, Shanghai, China
- Zhangjiagang Office: Room 1902, #A-2, Huafutiandi BLD, Shazhou Western Road, Zhangjiagang, Jiangsu, China
- Qatar Office: Unit No.57, Building No.59, Street No.112, Zone No.69, City Plaza, Lusail, Qatar

Subsidiary

- SEAM : Husøyvegen 31, 4262 Avaldsnes, Norway

GHG Emissions Verification Statement



INDEPENDENT VERIFICATION OPINION

HANWHA ENGINE CO., LTD.

Introduction

DNV Business Assurance Korea Ltd. ("DNV") was commissioned by Hanwha Engine Co., Ltd. ("Company") to perform third party verification for the Company's Greenhouse Gas Inventory Report for the calendar year 2025 ("the report"). Company is responsible for the preparation of the GHG emissions data on the basis set out within "the guidelines on the operation of GHG emission trading scheme ("ETS") (Notification No. 2025-64 of Ministry of Environment)" based on ISO 14064-1. Our responsibility in performing this work is to the management of Company only and in accordance with terms of reference agreed with them. DNV expressly disclaims any liability or responsibility for any decisions, whether investment or otherwise, based upon this assurance statement.

Objective and Scope of Verification

The purpose of this verification is to present an independent verification opinion on the company's greenhouse gas emissions, and the scope of verification is as follows;

- Organizational Boundary : Domestic business sites of Company
- Reporting Boundary : Scope 1 (Direct emissions), Scope 2 (Indirect emissions)
- Reporting Period : 2025.01.01 ~ 2025.12.31

Verification Approach

The verification has been conducted in accordance with "Verification Guideline for GHG ETS (Notification No. 2025-165, Korean Ministry of Environment)" based on ISO 14064-3, under a Reasonable Level of Assurance. DNV planned and conducted the verification to obtain all necessary information and explanations, ensuring sufficient evidence to support a verification opinion at a 5% materiality level. As part of the verification process, we have reviewed as follows;

- Adequacy of GHG data control, collection, emission calculation and report process for the GHG inventory report.
- The GHG inventory is based on measurements and has inherent limitations that may arise from the process of calculating, estimating, and finalizing the reported data.

Conclusions

Based on the verification conducted, the information related to the GHG statement has been properly calculated and reported.

- DNV represents "unmodified" opinion on Greenhouse Gas Emissions.

Classification	Greenhouse Gas Emission (ton CO ₂ equivalent)		
	Direct emissions (Scope 1)	Indirect emissions (Scope 2)	Total emissions
2025	27,846,009	17,136,846	44,982

* Total emissions might be different from the sum of direct and indirect emissions by applying the rule that emissions should be summed after truncating decimal places at the business site level.



2025. 3. 26
Leo Jang Sup
Country Representative
DNV Business Assurance Korea Ltd.

This Assurance Opinion is valid as of the date of the issuance. Please note that this Assurance Opinion would be revised if any material discrepancy which may impact the Greenhouse Gas Emissions of the Company is subsequently brought to our attention.
DNV Business Assurance Korea : 108, 1, Jang-ro, Jangneung-gu, Seoul, Rep. of Korea. PRN-1038806-057-090

Third-Party Assurance Statement

Introduction

Haneul ESG Center Co.,Ltd (hereinafter the 'Assurer') was requested by Hanwha Engine to assure the '2026 Hanwha Engine Sustainability Report' (hereinafter the 'Report'). The Assurer independently carried out a review of the validity of the content and data contained in the Report.

Assurance Criteria, Scope, and Level

Hanwha Engine transparently discloses its performance and activities for sustainability management. The Assurer applied the international assurance standard AA1000 AS (v3), and performed the assurance using a Type 1 method at a Moderate level. Accordingly, only compliance with the four principles presented in AA1000 AP (2018) (inclusivity, materiality, responsiveness, and impact) was evaluated.

- Assurance criteria : AA1000AS (v3), AA1000AP (2018)
- Assurance type : Type 1 Accountability 4 principles (inclusivity, materiality, responsiveness, impact assurance)
- Assurance level : Moderate [assurance based on limitedly collected data]
- Target period : Jan. 1st, 2025~ Dec. 31st, 2025
- GRI Standards (2021) The report was prepared in accordance with the GRI Standards (2021), and its compliance with the items required by the referenced reporting standard was assessed.

Requirement	Compliance	Remarks
GRI Index Disclosure	○	GRI Index Reference
GRI Statement related to use	○	GRI Index Reference
GRI Notification status	○	-

Assurance Method

The Assurer collected information, materials, and other relevant supporting evidence related to the assurance in the following ways.

- Internal information provided by Hanwha Engine
- Materials and information disclosed by the company, such as on its website
- DART Electronic disclosure system
- Use of other internet-based information and data

Limitations

We disclose that the following limitations exist in performing this assurance.

- The Assurer performed the assurance based on the basic materials and information provided by Hanwha Engine, and responsibility for cases where the provided materials differ from the facts or are intentionally omitted lies with the report-preparing entity, the company.
- Physical due diligence was conducted on major worksites (headquarters and major plants) using a sampling method, and the origin of every individual data point was not investigated exhaustively.

- The Assurer confirmed that, after reviewing the content in the draft report, supplementation and corrections were made for the opinions presented. This report was prepared in accordance with GRI Standards 2021, and no material errors or inappropriate matters were found. Accordingly, in line with the AA1000AP (2018) 4 principles, we present our opinion as follows.

Inclusivity

The company clearly applies group-level advanced workforce-classification criteria and actively conducts supplier shared-growth satisfaction surveys, broadly integrating the voices of internal and external stakeholders into management.

Responsiveness

In line with the government's 2050 Net-Zero policy, the company is actively pursuing the establishment of a carbon-neutrality roadmap and climate-change response consulting, and it demonstrated the highest level of flexibility and execution by immediately reflecting the improvement opinions derived from the assurance process.

Materiality

It correctly identifies environmental indicators such as greenhouse-gas emissions, energy efficiency, air pollutants, and water management — key challenges of the ship-engine manufacturing industry — as core issues and discloses them transparently.

Impact

Through comprehensive EHS (safety, health, environment) risk assessments and supply support for a total of 32 partners, it is creating a positive ripple effect of a safe and sustainable industrial ecosystem across the supply chain, beyond the company itself.

Recommendations for Improvement

The climate-scenario analysis proactively introduced in this report is highly encouraging and is assessed as an excellent achievement, in that it identifies future climate-change risks and opportunities and actively demonstrates the business's Resilience from a financial perspective. Building on the leading climate-response capabilities shown by Hanwha Engine Co., Ltd., we recommend that the company further advance its currently-being-refined Scope 3 emissions calculation criteria to complete a carbon-management standard model that global shipping and shipbuilding customers can trust. In addition, the company should expand the EHS risk-assessment and safety-supply support program for partners — which achieved significant practical results in supply-chain stabilization — into a representative win-win brand in the social domain, further strengthening external communication. Finally, if the company standardizes its internal data-management system — such as the decimal notation of air pollutants and the units of wastewater volume — even more precisely in line with global standards, it will be able to fully impress upon external stakeholders the disclosure credibility and the authenticity of ESG management that Hanwha Engine has elevated through this introduction of climate scenarios.

2026. 06.29



Haneul ESG Center Co.,Ltd Yong-Seok Choi



GRI Content Index

Statement of use	Hanwha Engine prepared this Sustainability Report covering its performance from January 1, 2025 to December 31, 2025, in accordance with the GRI Standards (with reference to the GRI Standards).
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standards	Not Applicable

Topic	GRI Disclosure		Report Page	Remarks	
GRI 2 : General Disclosures 2021					
GRI 2: Organizational Profile and Reporting Practices	2-1	Organizational details	2, 6~7		
	2-2	Entities included in the organization's sustainability reporting	2		
	2-3	Reporting period, frequency and contact point	2		
	2-4	Restatements of information	2		
	2-5	External assurance	61		
GRI 2: Corporate Activities and Employees	2-6	Activities, value chain and other business relationships	6~9		
	2-7	Employees	6, 59		
	2-8	Workers who are not employees	59		
GRI 2: Governance	2-9	Governance structure and composition	53~54		
	2-10	Nomination and selection of the highest governance body	53		
	2-11	Chair of the highest governance body	53		
	2-12	Role of the highest governance body in overseeing the management of impacts	54		
	2-13	Delegation of responsibility for managing impacts	52~54		
	2-14	Role of the highest governance body in sustainability reporting	54		
	2-15	Conflicts of interest	54		
	2-16	Communication of critical concerns	54		
	2-17	Collective knowledge of the highest governance body	54		
	2-18	Evaluation of the performance of the highest governance body	54		
	2-19	Remuneration policies	54		
	2-20	Process to determine remuneration	54	See Business Report	
	2-21	Annual total compensation ratio	54	See Business Report	
	GRI 2: Strategy, Policies, and Practices	2-22	Statement on sustainable development strategy	5	
		2-23	Policy commitments	5	
2-24		Embedding policy commitments	16,21,32,41,45,48		
2-25		Processes to remediate negative impacts	17, 19, 32, 34, 39, 55~56		
2-26		Mechanisms for seeking advice and raising concerns	56		
2-27		Compliance with laws and regulations	55, 60		
2-28		Membership associations	60		
GRI 2: Stakeholder Engagement	2-29	Approach to stakeholder engagement	11		
	2-30	Collective bargaining agreements	35		
GRI 3: Management Approach	3-1	Process to determine material topics	12		
	3-2	List of material topics	13	Applied based on the 2025 survey results	

Topic	GRI Disclosure		Report Page	Remarks
Climate Change (GRI 102, 2025)				
GRI 102: Climate Change (2025)	3-3	Management of material topics	15	
	102-1	Transition plan for climate change mitigation	26~30	
	102-2	Climate change adaptation plan	26~30	
	102-3	Just transition	26~30	
	102-4	GHG emissions reduction targets and progress	18	
	102-5	Scope 1 GHG emissions	18, 58	
	102-6	Scope 2 GHG emissions	18, 58	
	102-7	Scope 3 GHG emissions	30	
	102-8	GHG emissions intensity	18, 58	
	102-9	GHG removals in the value chain	18	
Energy (GRI 103, 2025)				
GRI 103: Energy (2025)	3-3	Management of material topics	15	
	103-1	Energy policies and commitments	17	
	103-2	Energy consumption and self-generation within the organization	17	
	103-4	Energy intensity	58	
	103-5	Reduction in energy consumption	17	

GRI Index

Topic	GRI Disclosure		Report Page	Remarks
Economic Performance (GRI 200)				
GRI 205: Anti-Corruption (2016)	3-3	Management of material topics	55	
	205-1	Operations assessed for risks related to corruption	56	
	205-2	Communication and training about anti-corruption policies and procedures	55~56	
	205-3	Confirmed incidents of corruption and actions taken	56	
GRI 206: Anti-Competitive Behavior (2016)	3-3	Management of material topics	45	
	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	46	

Topic	GRI Disclosure		Report Page	Remarks
Environmental Performance (GRI 300)				
GRI 303: Water and Wastewater (2018)	3-3	Management of material topics	16	
	303-5	Water consumption	17, 58	
GRI 305: Emissions (2016)	3-3	Management of material topics	16	
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	58	
GRI 306: Waste(2020)	3-3	Management of material topics	16	
	306-1	Waste generation and significant waste-related impacts	19, 58	
	306-2	Management of significant waste-related impacts	19, 58	
	306-3	Waste generated	19, 58	
	306-4	Waste diverted from disposal	19, 58	
	306-5	Waste directed to disposal	19, 58	
GRI 308: Supplier Environmental Assessment (2016)	3-3	Management of material topics	41	
	308-2	Negative environmental impacts in the supply chain and actions taken	42~44	

Topic	GRI Disclosure		Report Page	Remarks
Social Performance (GRI 400)				
GRI 403: Occupational Safety and Health (2018)	3-3	Management of material topics	37	
	403-1	Occupational health and safety management system	38~39	
	403-2	Hazard identification, risk assessment, and incident investigation	38~39	
	403-3	Occupational health services	38~39	
	403-4	Worker participation, consultation, and communication on occupational health and safety	38~39	
	403-5	Worker training on occupational health and safety	38~40	
	403-6	Promotion of worker health	40	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	38~40	
	403-8	Workers covered by an occupational health and safety management system	39	
	403-9	Work-related injuries	38~40, 59	
403-10	Work-related ill health	38~40, 59		
GRI 404: Training and Education (2016)	3-3	Management of material topics	32	
	404-2	Programs for upgrading employee skills and transition assistance programs	33	
GRI 405: Diversity and Equal Opportunity (2016)	3-3	Management of material topics	53	
	405-1	Diversity of governance bodies and employees	59	
	405-2	Ratio of basic salary and remuneration of women to men	59	
GRI 413: Local Community (2016)	3-3	Management of material topics	48	
	413-1	Operations with local community engagement, impact assessments, and development programs	49	
GRI 414: Supply Chain Management (2016)	3-3	Management of material topics	41, 48	
	414-1	New suppliers that were screened using social criteria	42	
	414-2	Negative social impacts in the supply chain and actions taken	47, 51	
GRI 416: Customer Safety and Health (2016)	3-3	Management of material topics	45	
	416-1	Assessment of the health and safety impacts of product and service categories	46	
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	47	
GRI 418: Customer Information Protection (2016)	3-3	Management of material topics	45	
	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	47	

