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# About this Report

## About This Report

HD Hyundai Infracore strives to establish the ESG (Environmental, Social, Governance) management corporate-wide. As part of this effort, we publish an integrated report to disclose our financial and non-financial performance results and allow our stakeholders to understand how we deliver corporate value. This report is the 14th integrated report of HD Hyundai Infracore.

## Reporting Principles and Standards

This report was prepared in compliance with the reporting requirements of the Global Reporting Initiative (GRI) Standards 2021 and Sustainability Accounting Standards Board (SASB) standards were applied to reflect important issues in different industries. In addition, this report considered the recommended disclosure guidelines by Tasks Force on Climate-Related Financial Disclosures (TCFD) and UN SDGs. The financial information included in this report has been prepared in accordance with the Korean International Financial Reporting Standards (K-IFRS).

## Reporting Period

This report highlights the sustainability management activities and outcomes of HD Hyundai Infracore from January 1 to December 31 of 2023. Depending on the timeliness and significance of information, some items include content from the first half of 2024. For quantitative results, data for four years from 2020 to 2023 are reported to track annual trends.

## Scope and Boundary of the Report

This report mainly covers the activities and outcomes made by the company's worksites in Korea. Some qualitative and quantitative data were taken from the company's overseas subsidiaries. Detailed reporting scopes for each quantitative data are specified separately within the 'ESG Databook'.

## Independent Assurance

This report underwent an independent assurance by a third party to ensure accuracy, reliability, objectivity and trustworthiness and the results are available in the Appendix.

## Access to the Report and Contact Information

This report is published in Korean and English and disclosed on our website ([www.hd-infracore.com](http://www.hd-infracore.com)) to enhance accessibility to information for various stakeholders. For inquiries about the report, please contact us via email at [hdi.esg@hd.com](mailto:hdi.esg@hd.com).

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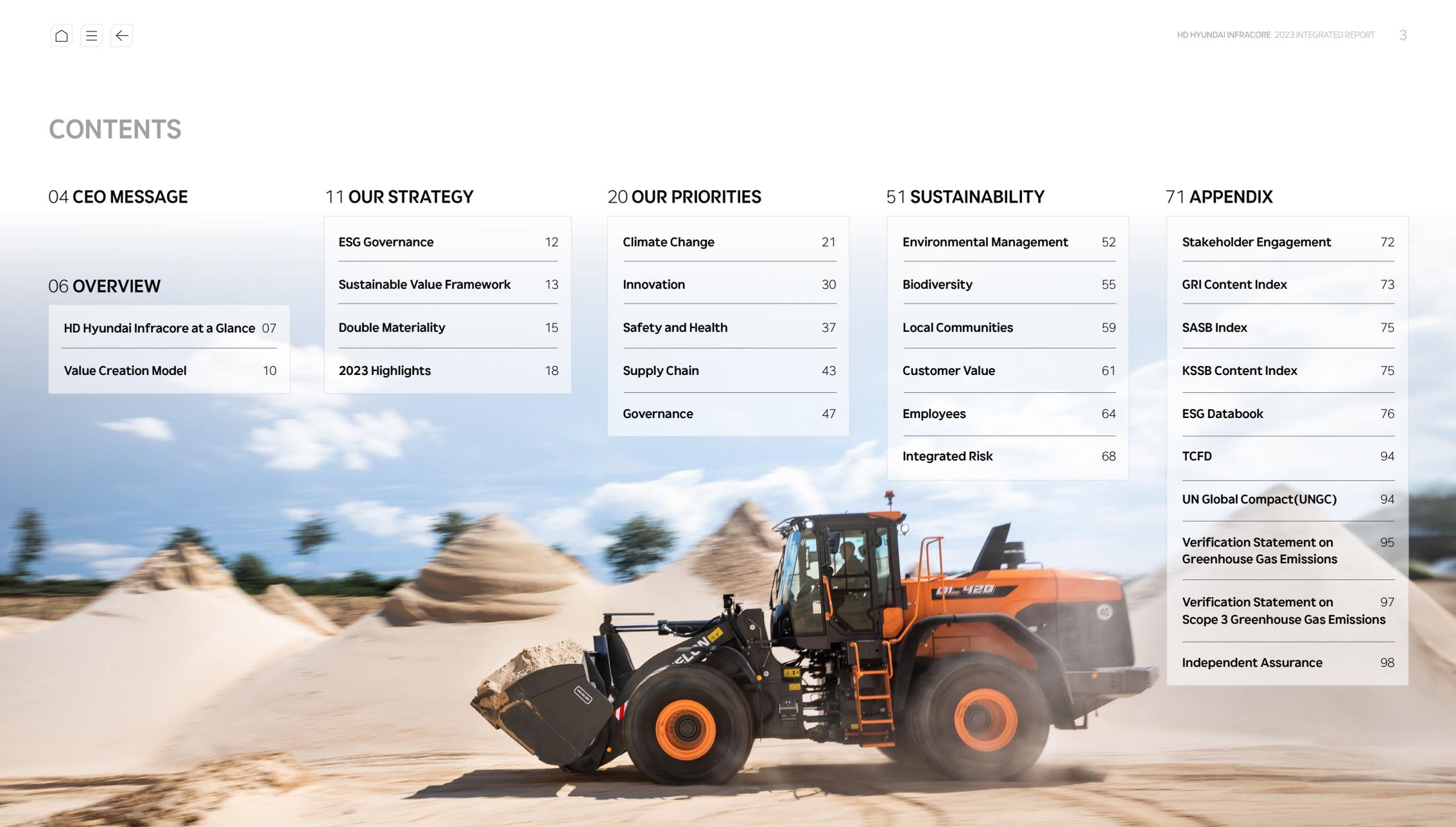
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## CEO Message



CEO, HD Hyundai Infracore  
**Young Cheul Cho**

Dear valued shareholders and stakeholders,  
I sincerely thank all of you for your unwavering encouragement and support for HD Hyundai Infracore.

In 2023, HD Hyundai Infracore demonstrated its competitiveness as a leading national construction machinery company in the global market and among customers through the launch of 'DEVELON', a new construction machinery brand and the introduction of new products.

Furthermore, the HD Hyundai Construction Equipment Sector showcased innovative technologies for future infrastructure construction, including unmanned excavators, at the CES in the United States earlier this year and we are intensifying efforts to realize these innovations. HD Hyundai Infracore aims to be a global top-tier company by expanding synergy in the Construction Equipment Sector and achieving our vision successfully.

**HD Hyundai Infracore commits to the following efforts to enhance resilience in a changing business environment and prepares for a new future through ESG management.**

**First, we will secure future competitiveness continuously through relentless innovation.**

We aim to develop environmentally friendly products and solidify our technological prowess in the competitive landscape of future technologies and supply high-quality products to the market thereby enhancing customer satisfaction. We will also propose innovative construction equipment solutions tailored to the era of electrification and automation, focusing on achieving the highest level of fuel efficiency and applying advanced electrification technologies. Furthermore, we will proactively enhance our competitive edge in eco-friendly powertrain technologies such as hydrogen combustion engines and electric battery packs, as we expect tightening global emission regulations and accelerating carbon neutrality initiatives. This approach aims to secure future growth momentum and propel us to become a leader in the next generation.

### Response to Climate Change and Creation of New Opportunities

We will continue to respond to climate change and pursue sustainable development for future generations. HD Hyundai Construction Equipment Sector has established a carbon emissions reduction strategy and is accelerating its implementation to realize its 2050 carbon neutrality goal to respond to climate change. HD Hyundai Infracore was the first in the industry to join the international initiative to achieve RE100 by 2040, and is actively implementing a step-by-step roadmap, including the introduction of renewable energy to its worksites. We will strive to create new opportunities by conducting carbon emissions reduction activities in various aspects of our business and managing performance indicator targets related to climate change response to lead to tangible business results.

### Expanding Communication with Stakeholders and Establishing an ESG Management Culture

We will establish a culture of ESG management throughout the entire value chain while securing sustainability. We strive to ensure that everyone from the BOD (Board of Directors), our highest decision-making body to our employees, understands our sustainability goals and the need for ESG management, and that ESG is internalized through active communication. We will spare no effort to support our suppliers in securing ESG competitiveness not only within the company but also in our supply chain, and we will actively build partnerships to create a sustainable future together.

A company can be sustainable and develop when it has deep ties with its stakeholders, including customers, shareholders, suppliers, and employees. We will become a more trusted company by enhancing competitiveness in technologies and products, enhancing shareholder value through transparency and active communication, responding to international ESG disclosure obligations, and implementing fair and transparent eco-friendly management through risk management.



CEO, HD Hyundai Infracore  
Seung Hyun Oh



# Overview

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# HD Hyundai Infracore at a Glance

**Introduction of HD Hyundai Infracore** | HD Hyundai Infracore is one of Korea's leading machinery companies that has established a unique position in each of its business areas, including construction equipment, engines, various attachments and utility equipment, through continuous growth since its establishment in 1937. After being incorporated into HD Hyundai Construction Equipment Sector in 2021, the company changed its name to HD Hyundai Infracore in 2023, and its main businesses are construction equipment and engines.

Company Name	HD Hyundai Infracore Co., Ltd.
CEO	Young Cheul Cho, Seung Hyun Oh
Address	489, Injung-ro, Dong-gu, Incheon
Main Business Areas	Construction machinery-engine production and sales
Year Founded	1937
No. of Employees	4,606

YoY operating profit increase

26%

Winning order for defense engine from Turkiye

3,131 billion

10,000<sup>th</sup>

ADT<sup>1)</sup> production in Norway Subsidiary

40,000 units

Accumulated production volume in Gunsan Factory

**Management Philosophy** | HD Hyundai Infracore has established a management vision for all employees to share and practice in order to fulfill its corporate social responsibility and roles.

Mission

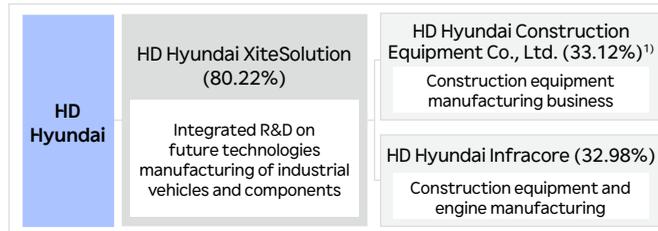
**Global Leader in Infrastructure Solutions**

**We are leaping ahead as a total solutions provider that offers our customers better value and greater convenience, as well as products of the highest quality, and as a global leader in the infrastructure solutions industry, by expanding our lines of business continuously.**

Core Values

Maximization of Customer Value	Sustainable Growth of Business	Smart Solution	Strengthening Business Portfolio
<ul style="list-style-type: none"> <li>Maximizing customer value and customer satisfaction by providing world-class products, parts, and services</li> </ul>	<ul style="list-style-type: none"> <li>Continued business growth by strengthening existing business competitiveness</li> <li>Securing cost leadership by reducing costs continuously</li> </ul>	<ul style="list-style-type: none"> <li>Developing new products and services that incorporate ICT such as big data and the Internet of Things</li> <li>Maximizing operational efficiency by creating a smart work environment</li> </ul>	<ul style="list-style-type: none"> <li>Expanding to the high value-added technology and solutions sector</li> </ul>

## Governance Structure of HD Hyundai Construction Equipment Sector



**Introduction of HD Hyundai XiteSolution** | HD Hyundai XiteSolution, a parent company of HD Hyundai Infracore, is an intermediate holding company in the HD Hyundai Construction Equipment Sector, which was newly launched in 2021 for the industrial vehicles and hydraulic parts business. HD Hyundai XiteSolution will create synergies in procurement, R&D, and core parts (components) together with HD Hyundai Construction Equipment, another subsidiary to deliver the vision of 'Global Top 5 in 2025'. As the global construction equipment-specialized business, HD Hyundai Construction Equipment and HD Hyundai Infracore continue to strengthen the proprietary brand while supplying equipment, parts, and utility equipment to construction sites.

**Roles of HD Hyundai XiteSolution** | HD Hyundai XiteSolution will secure global competitiveness by maximizing synergies in our core business of construction equipment.

**Enhancing Synergies based on Integrated Volume**

Securing economies of scale through integrated procurement	Securing cost competitiveness based on parts commonization
--	--

**"Achieving economies of scale based on the combined volumes of the two companies provides a solid cost structure that can withstand market downturns and increased competition"**

**Developing New Integrated Model and Internalizing Core Parts**

Increasing product competitiveness by applying advantageous technologies	Reducing investment by codeveloping new models
--	--

**"Maximizing customer satisfaction by supplying competitive advantage components"**

**Developing New Future Technology**

Developing autonomous solutions and remote control and operation solutions	Eco-friendly response through development of motorization technology
--	--

**"Creating business and increasing profitability by providing total solutions"**

1) Articulated Dump Truck

1) The shareholding ratio was changed to 34.62% as of April 30, 2024 due to the share buyback of HD Hyundai Construction Equipment.

Global Network | HD Hyundai Infracore responds to the rapidly changing global business environment with overseas networks in 13 countries, including China, Norway, and the Czech Republic.

Global Network

**Financial Performance**

**KRW 4,659,605 million**  
Revenue

---

**KRW 418,264 million**  
Operating profit

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**KRW 230,712 million**  
Net income

Operation Performance

**15,447 units**  
Construction equipment production volume

**110,756 units**  
Engine production volume

Production Subsidiaries

- ▲ Incheon, Korea | Gunsan, Korea | Yantai, China | Tianjin, China | Elnesvågen, Norway

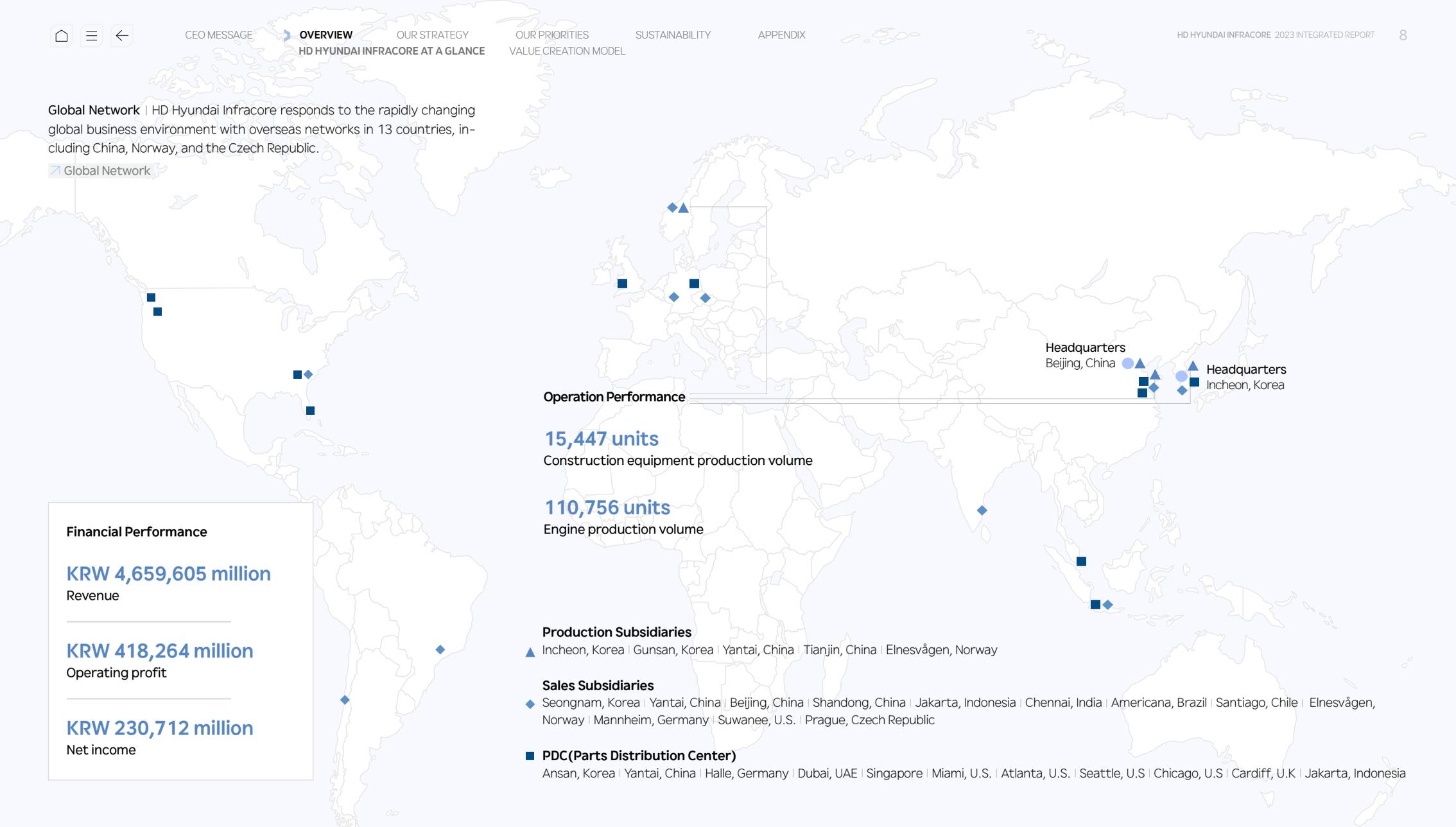
Sales Subsidiaries

- ◆ Seongnam, Korea | Yantai, China | Beijing, China | Shandong, China | Jakarta, Indonesia | Chennai, India | Americana, Brazil | Santiago, Chile | Elnesvågen, Norway | Mannheim, Germany | Suwanee, U.S. | Prague, Czech Republic

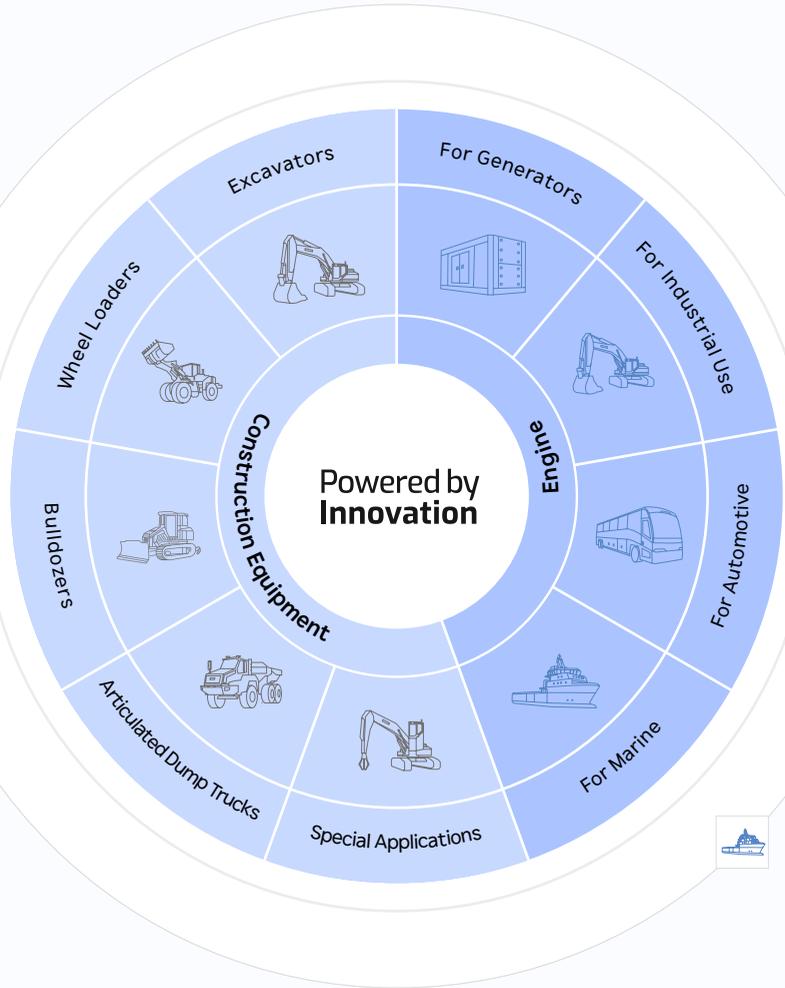
PDC(Parts Distribution Center)

- Ansan, Korea | Yantai, China | Halle, Germany | Dubai, UAE | Singapore | Miami, U.S. | Atlanta, U.S. | Seattle, U.S | Chicago, U.S | Cardiff, U.K | Jakarta, Indonesia

Headquarters  
Beijing, China  
Headquarters  
Incheon, Korea



**Business Areas**



**Engine** | Technology that creates a better life for society and people. HD Hyundai Infracore Engine is moving toward becoming a global top engine maker by providing a total solution with a full line-up of high-quality, high-specification engines that meet the increasingly stringent environmental regulations.

**For Generators**



HD Hyundai Infracore engines are used in emergency and commercial generators, delivering high power and durability to every corner of the world where power is needed.

**For Industrial Use**



HD Hyundai Infracore provides the best products and services optimized for your equipment through industrial engines, tailored to your needs and perspectives.

**For Automotive**



HD Hyundai Infracore automotive engines are running around the world, satisfying customers with high-quality, eco-friendly, customized designs that deliver high fuel efficiency and power.

**For Marine**



HD Hyundai Infracore marine engines are loved by customers around the world for their high fuel efficiency and durability, and are used in a wide range of vessels including fishing boats, yachts, and cruise ships.

**Construction Equipment** | The construction equipment business area of HD Hyundai Infracore has established itself as a global comprehensive construction equipment company with a lineup that ranges from excavators and wheel loaders to articulated dump trucks, with production, sales and distribution networks around the world.

**Excavators**



HD Hyundai Infracore excavators deliver optimal performance and work efficiency in any environment, from compact to medium and large excavators. We guarantee the highest customer satisfaction with compact excavators that combine powerful digging power with convenience and medium and large excavators that maximize productivity with durability, fuel efficiency and overwhelming power.

**Wheel Loaders**



HD Hyundai Infracore wheel loaders are powerful and efficient for the toughest jobs, with the power and agility to get the job done. Impeccable quality and next-level durability ensure maximum machine utilization and increased profits.

**Bulldozers**



The HD Hyundai Infracore bulldozer, introduced to the domestic market after 24 years, is equipped with a DEVELON self-engine that meets emission regulations to maximize performance and fuel efficiency in its class. We provide differentiated products and services by enhancing work safety and driving performance with high-performance attachments.

**Articulated Dump Trucks**



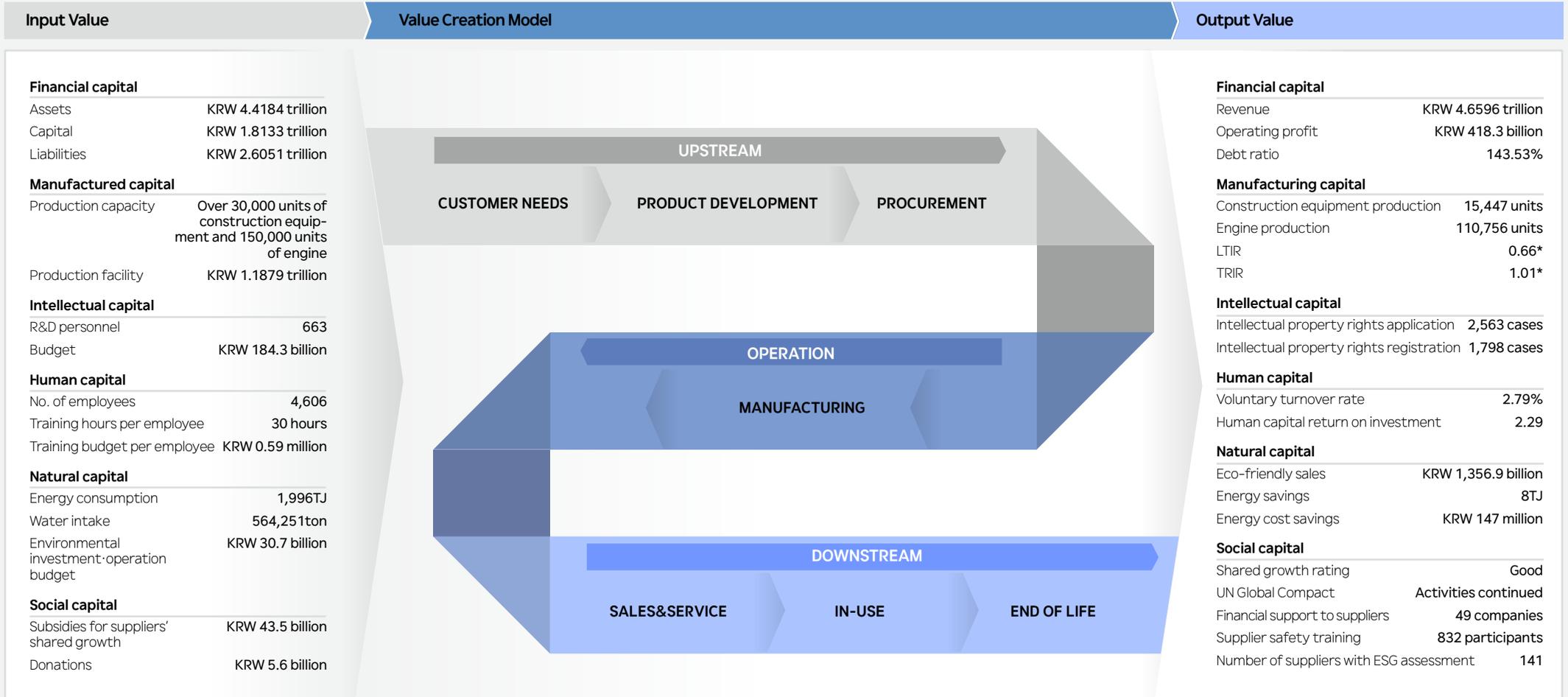
HD Hyundai Infracore articulated dump trucks are equipped with unique technology that enhances grip, ensuring stable and powerful driving performance and maximum productivity even in the toughest conditions. They boast excellent durability, fuel efficiency, and convenient maintenance, making them the most advanced articulated dump trucks.

**Special Applications**



We provide specialized equipment solutions to meet the needs of customers' various job sites and usage conditions to improve work productivity and provide a safer working environment.

# Value Creation Model



**Input Value**

**Value Creation Model**

**Output Value**

**Financial capital**

Assets	KRW 4.4184 trillion
Capital	KRW 1.8133 trillion
Liabilities	KRW 2.6051 trillion

**Manufactured capital**

Production capacity	Over 30,000 units of construction equipment and 150,000 units of engine
Production facility	KRW 1.1879 trillion

**Intellectual capital**

R&D personnel	663
Budget	KRW 184.3 billion

**Human capital**

No. of employees	4,606
Training hours per employee	30 hours
Training budget per employee	KRW 0.59 million

**Natural capital**

Energy consumption	1,996TJ
Water intake	564,251ton
Environmental investment·operation budget	KRW 30.7 billion

**Social capital**

Subsidies for suppliers' shared growth	KRW 43.5 billion
Donations	KRW 5.6 billion

**Financial capital**

Revenue	KRW 4.6596 trillion
Operating profit	KRW 418.3 billion
Debt ratio	143.53%

**Manufacturing capital**

Construction equipment production	15,447 units
Engine production	110,756 units
LTIR	0.66*
TRIR	1.01*

**Intellectual capital**

Intellectual property rights application	2,563 cases
Intellectual property rights registration	1,798 cases

**Human capital**

Voluntary turnover rate	2.79%
Human capital return on investment	2.29

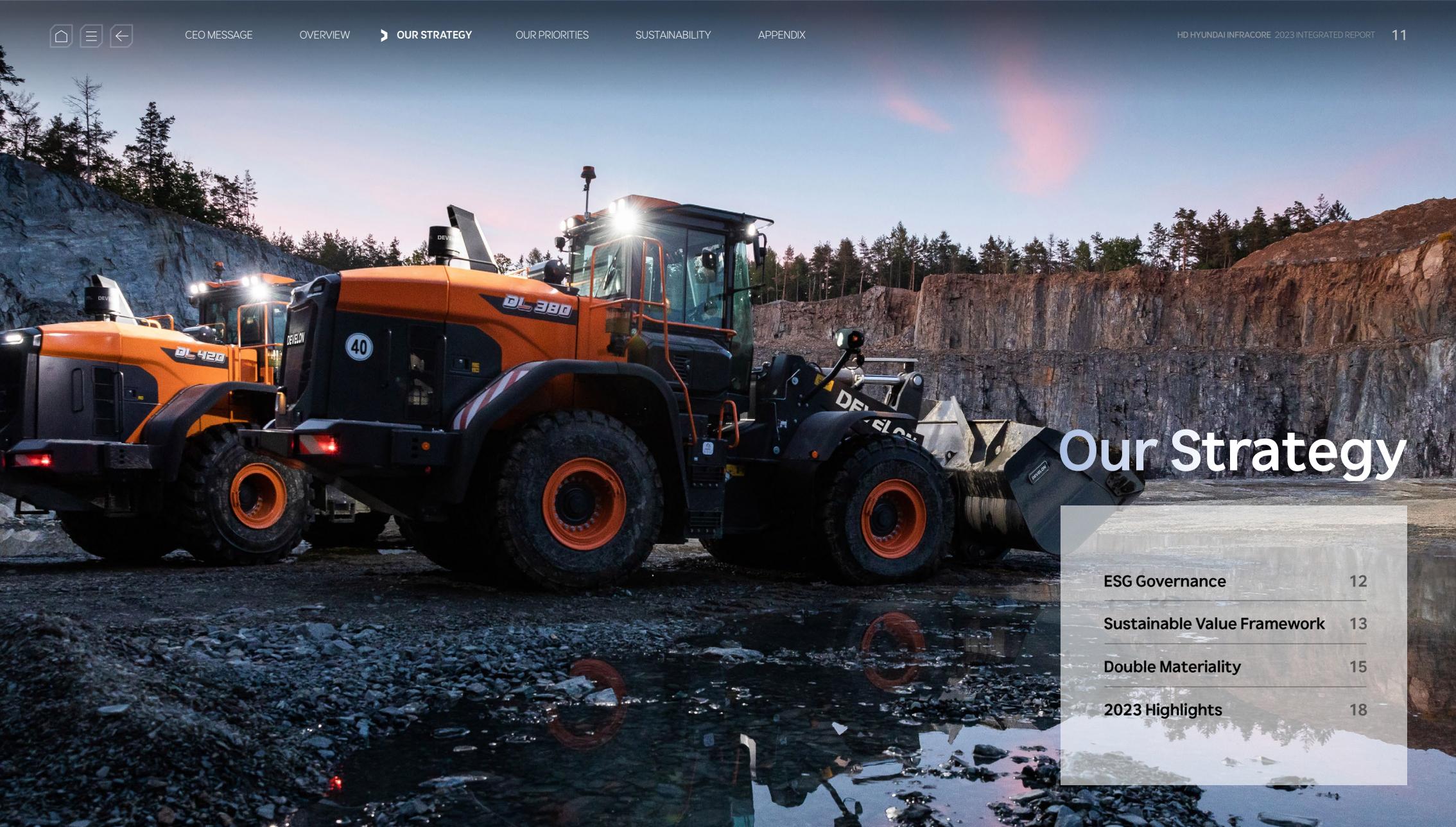
**Natural capital**

Eco-friendly sales	KRW 1,356.9 billion
Energy savings	8TJ
Energy cost savings	KRW 147 million

**Social capital**

Shared growth rating	Good
UN Global Compact	Activities continued
Financial support to suppliers	49 companies
Supplier safety training	832 participants
Number of suppliers with ESG assessment	141

\*Unit: 200,000 hours



# Our Strategy

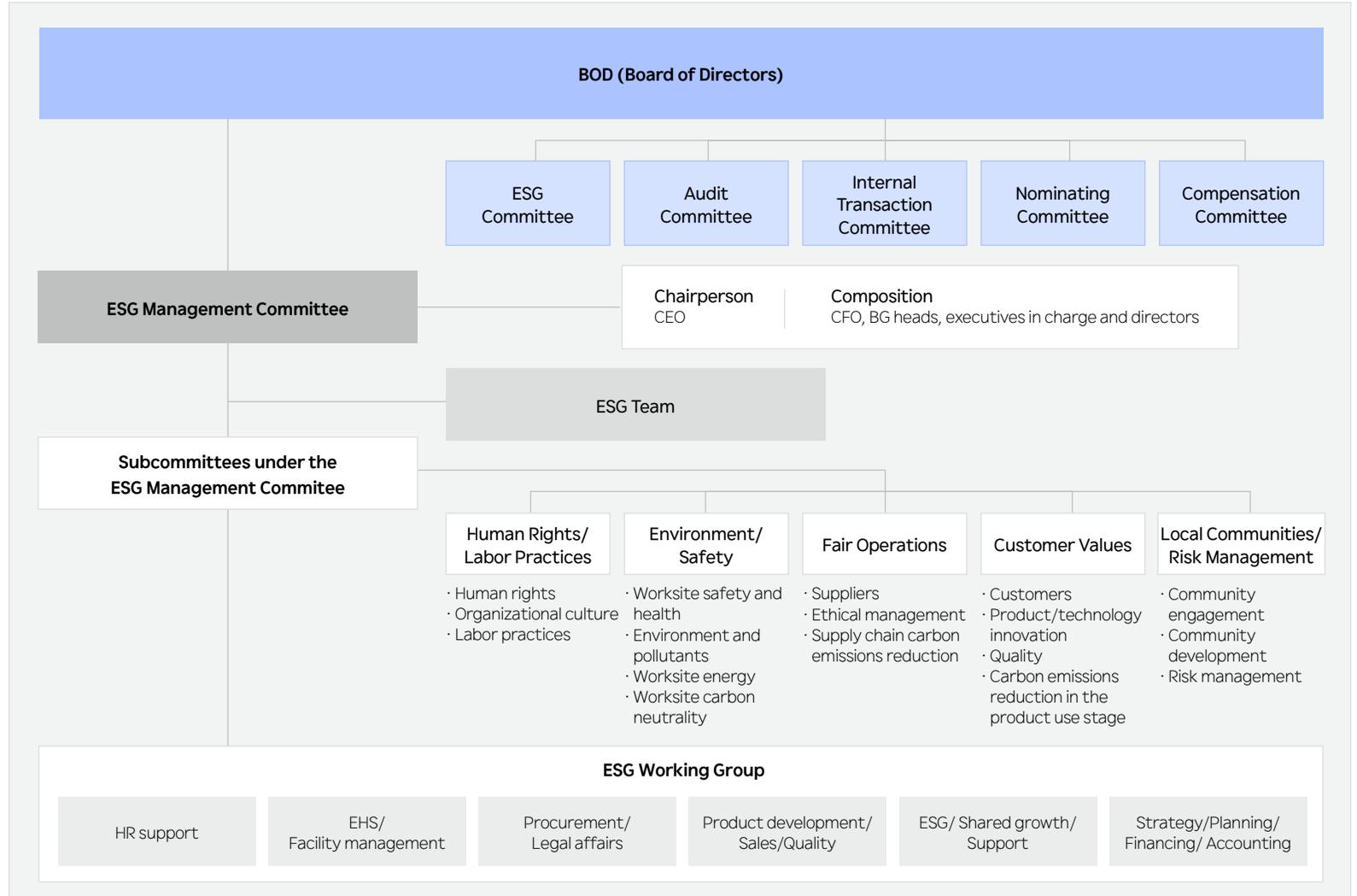
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# ESG Governance

**ESG Committee** | HD Hyundai Infracore pursues sustainability management to create value and share it with stakeholders. The ESG Committee was formed under the BOD consisting of one inside director and three outside directors. As the highest decision-making body for ESG strategy and policy, the ESG Committee is responsible for promoting work in key ESG areas and deliberating on ESG disclosures to ensure HD Hyundai Infracore fulfills its social responsibilities.

**ESG Management Committee** | HD Hyundai Infracore operates the ESG Management Committee. The ESG Management Committee is convened three times a year under the supervision of the CEO, with participation by five subcommittees - human rights/labor practices, environment, fair operations, customer values, and local communities. The Committee chooses major ESG issues based on the company's materiality analysis, reviews relevant company opportunities and risks, and selects and monitors ESG strategic tasks.

**ESG Working Group** | Once the ESG Management Committee identifies ESG strategic tasks and makes decisions on matters related to operation and process, the Working Group which consists of working group draws up specific action plans.



# Sustainable Value Framework

The framework consists of 6 focus areas and 12 implementation strategies for integrated management of financial and non-financial performance selected through the results of major external indices, materiality analysis and internal engagement based on the values of HD Hyundai Infracore and the UN SDGs(Sustainable Development Goals).

**“Creating inclusive values for humanity and future society based on innovation”**

**Sustainable Value Framework**

**Focus Areas**

**Implementation Structure**

**Implementation Strategies**

**2023 Strategic Tasks**

**PEOPLE**

Providing a healthy environment, skills and capabilities to our stakeholders

Healthy local community

Local Community

- **Contribution to the local community:** Contributing to sustainable local communities through partnership and support

- Restoring local ecosystems and preserving biodiversity
- Establishing an information protection management system and minimizing company-wide security risks
- Enhancing human rights impact assessment and improving employee working environment satisfaction

Sustainable workplace

Human Rights/Labor / Health

- **Employee health:** Preventing occupational diseases through the operation of noise reduction processes and improvement in musculoskeletal disorders.
- **Employee development:** Employee capacity building and fostering
- **Talent recruitment and retention:** Offering quality jobs to local talents and employees
- **Employee safety:** Securing safety and health of employees preemptively by implementing safety culture activities

**PRODUCT / SOLUTION / SERVICE**

Innovating products, solutions and services for sustainable growth

Products and solutions for the future

Customer Value

- **Development of low-carbon and alternative fuel products:** Contributing to mitigation of climate change by securing carbon-reducing technologies and products
- **Eco-friendly, autonomous technologies:** Reducing carbon emission from products and improving efficiency and safety at construction sites
- **Improvement of customer values:** Supporting the efficient and stable use of products by customers with expansion of smart maintenance
- **Product stewardship:** Strengthening eco-friendly competitiveness throughout the whole process from production, sales, use and disposal phases of products

- Expanding low-carbon and alternative fuel offerings
- Acquisition and product development of new electrification technologies
- Developing future power systems and alternative fuel technologies

**PROCESS**

Increasing positive impacts within our value chain for sustainable development

Environment as a foundation for living

Environment/ Safety

- **Response to climate change:** Implementing carbon neutrality at worksites by 2050

- Sourcing renewable energy with on-site solar
- Improving energy consumption intensity at the workplace
- Establishing and implementing ESG evaluation system for suppliers
- Strengthening competitiveness of suppliers by building smart factory MES

Responsible supply chain

Fair Operations

- **Supply chain ESG:** Supporting suppliers in strengthening ESG capabilities to build foundation for sustainable shared growth

Stable governance

BOD

- **Governance transparency:** Maintaining BOD independence and operating BOD proactively

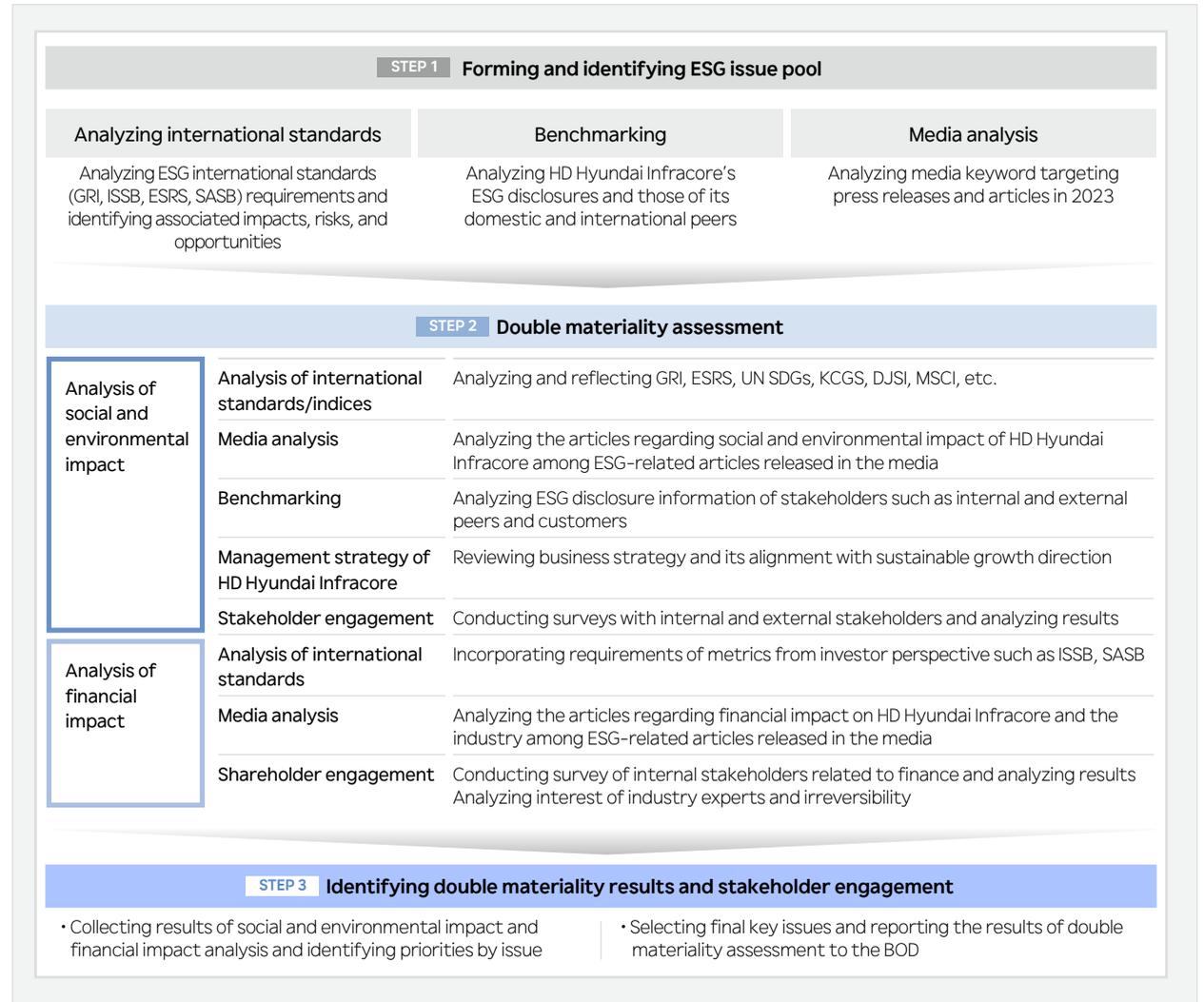
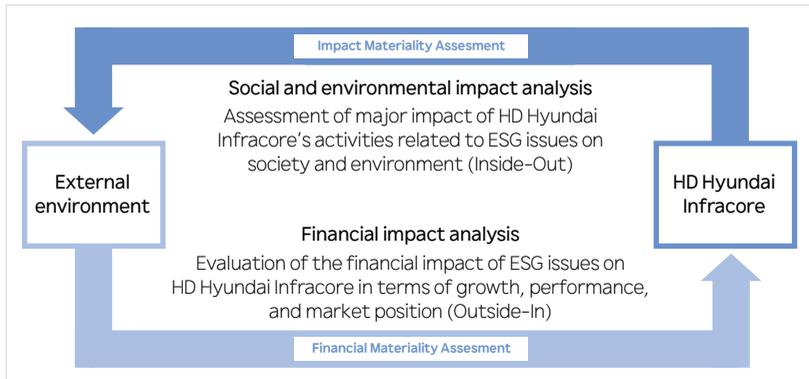
**Sustainable Value Roadmap** | HD Hyundai Infracore manages its mid- to long-term ESG goals and growth direction through integrated management of financial and non-financial performance centered on its core Sustainable Value Framework. The Sustainable Value Framework is managed in conjunction with the company’s mid- to long-term strategic tasks, and we will continue to disclose our performance in the belief that integrated management of financial and non-financial mid- to long-term performance will be the foundation for sustainable growth.

Sustainable Value	Focus Areas	KPI	2023 outcome	2025 Key Target
<b>PEOPLE</b>  	Healthy local community	Donation amount	<b>KRW 3 billion</b>	<b>0.40</b> LTIR
		The ratio of donation to revenue	<b>0.07%</b>	
	Sustainable workplace	OIFR (Occupational Illness Frequency Rate) (Unit: 200,000 hours)	<b>0.23</b>	
		Average training hours and training expenses per employee	<b>30 hours/ KRW 0.59 million</b>	
		Turnover rate	<b>2.79%</b>	
		LTIR (Lost Time Incidents Rate) (Unit: 200,000 hours)	<b>0.83</b>	
<b>PRODUCT/SOLUTION/SERVICE</b>  	Products and solutions for the future	Ratio of construction equipment to which electro-hydraulic and automation technology is applied	<b>18%</b>	<b>4,322,400 hours</b> Smart maintenance
		Ratio of investment in development of eco-friendly, autonomous technologies	<b>KRW 26.1 billion</b>	
	Smart Maintenance Managed Hours	<b>1,966,331 hours</b>		
	Sales of remanufactured parts	<b>KRW 0.85 billion</b>		
		<b>94,479tonCO<sub>2</sub>eq</b>		
<b>PROCESS</b>  	Environment as a foundation for living	Greenhouse gas emissions		<b>80 suppliers</b> Suppliers with MES established  <b>100,745 tCO<sub>2</sub>eq</b> Greenhouse gas emissions
	Responsible supply chain	Accumulated number of suppliers with MES establishment in their smart factories	<b>64 suppliers</b>	
		NO. of companies subject to supplier ESG evaluation	<b>141 suppliers</b>	
	Stable governance	Ratio of outside directors in the BOD	<b>60%</b>	
		Directors’ attendance rate	<b>100%</b>	

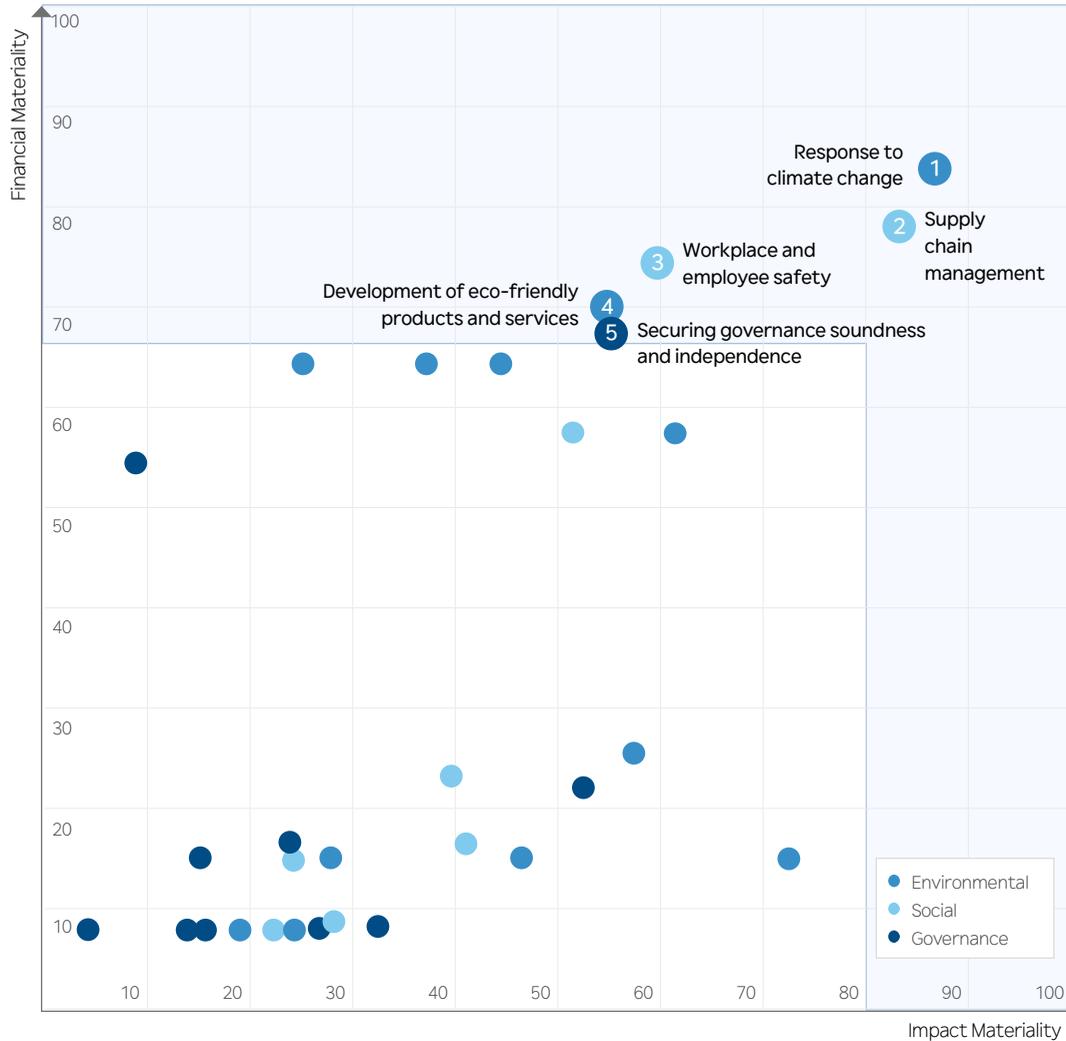
# Double Materiality

**Double Materiality Assessment** | HD Hyundai Infracore implements a materiality analysis process every year to derive key issues by analyzing matters that stakeholders are interested in, matters that require improvement, and impact of corporate activities. The double materiality assessment considers both the social and environmental impacts of a company’s activities on the economic environment and humanity (impact materiality) and the financial impact of changes in various environments (environmental, social, and business) on the company’s value (financial materiality). Through the double materiality assessment that considers these two aspects in an integrated way, a company can obtain a clear understanding of stakeholders’ concerns and expectations and improve business performance by reflecting the results on management strategies. At the same time, environmental and social values across business activities can be more closely reflected.

**Double Materiality Assessment Process** | HD Hyundai Infracore borrowed the double materiality concept of the European Sustainability Reporting Standards (ESRS) to conduct a materiality assessment, which analyzed stakeholders’ interests, improvements, and impacts of corporate activities to derive material topics. The materiality assessment process and the results of the double materiality assessment were reported to the BOD and certified by a third party to ensure the reliability of the double materiality assessment process and the process of selecting material topics.



**Results of Double Materiality Assessment** | We analyzed social and environmental impacts and financial impacts, identified 5 key issues based on analysis results and selected priorities.



**Changes in key issues in 2023**

“ Supply chain management issues rose by 2 notches year-on-year due to increased demand and regulations on supply chain ESG management, such as the Corporate Sustainability Due Diligence Directive of EU and the need to manage ESG risks across the industry value chain, including suppliers. ”

“ Sound and transparent governance has emerged as a key issue as the importance of corporate social responsibility practices and ESG management has been emphasized. ”

<b>1</b> Response to climate change	Area	Environmental
	Social and environmental impact	high
	Financial impact	high
	2023 outcome	Reduction and monitoring of greenhouse gas emissions based on carbon neutrality roadmap/ Establishment of on-site solar power generation system
YoY	-	

<b>4</b> Development of eco-friendly products and services	Area	Environmental
	Social and environmental impact	Medium
	Financial impact	high
	2023 outcome	Launching and commercializing electric excavators, winning hydrogen combustion engine/e-Powerpack contract, unveiling Concept-X2 unmanned excavator and dozer
YoY	▼2	

<b>2</b> Supply chain management	Area	Social
	Social and environmental impact	high
	Financial impact	high
	2023 outcome	Conducting supply chain evaluation and due diligence project and expanding the shared growth fund
YoY	▲2	

<b>5</b> Securing governance soundness and independence	Area	Governance
	Social and environmental impact	Medium
	Financial impact	Medium
	2023 outcome	Installing the Compensation Committee, appointing female outside director, self-evaluation of the BOD, online dividend inquiry service, acquiring anti-corruption management system (ISO 37001)
YoY	NEW	

<b>3</b> Workplace and employee safety and health	Area	Social
	Social and environmental impact	Medium
	Financial impact	high
	2023 outcome	Completing the establishment of worksite safety culture, winning presidential citation at 2023 Safety Culture Award, strengthening supply chain safety and health
YoY	-	

**Key Issues for Creating Corporate Values**

	Risk/Opportunity	Business Case	Business Impact	Strategy	Mid to Long-term Goal (Domestic)	2023 Outcome	2023 KPI
<b>1</b> <b>Response to climate change</b>	<ul style="list-style-type: none"> <li>Increase in carbon price</li> <li>Use of low-carbon energy</li> </ul>	<ul style="list-style-type: none"> <li>Increase in the carbon credit purchase cost with growing demand for carbon emissions reduction with elevated nationally determined contribution (NDC)</li> <li>Reduction of electricity expense and carbon credit expenses by shifting to renewable energy for power required at worksites</li> </ul>	<ul style="list-style-type: none"> <li>Risk</li> <li>Cost</li> </ul>	<ul style="list-style-type: none"> <li>Analyzing risks and opportunities related to climate change               <ul style="list-style-type: none"> <li>Identifying risks and opportunities and developing responses for the short, medium, and long term based on the climate change risk management process</li> </ul> </li> <li>Establishing 2050 carbon neutrality goals and strategies               <ul style="list-style-type: none"> <li>2040 RE100, energy efficiency management, conduct of life cycle assessment (LCA)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>2025               <ul style="list-style-type: none"> <li>Energy consumption 2,358TJ</li> </ul> </li> <li>2025               <ul style="list-style-type: none"> <li>Greenhouse gas emissions 100,745tonCO<sub>2</sub></li> </ul> </li> </ul>	<b>Energy consumption 1,832TJ</b>  <b>Energy intensity saving 4.6%</b>  <b>Greenhouse gas emissions 94,479tonCO<sub>2</sub></b>	Energy consumption reduction (YoY 1% reduction of intensity)
<b>2</b> <b>Development of eco-friendly products and services</b>	<ul style="list-style-type: none"> <li>Increased demand for eco-friendly products from customers</li> <li>Increased opportunities for creating profit through low-carbon product innovation</li> </ul>	<ul style="list-style-type: none"> <li>Weakening competitiveness due to stagnant demand for electrified products due to changing market conditions by country</li> <li>Increasing profit generation opportunities through construction equipment innovation by applying fuel efficiency improvement and electrification technologies for reducing carbon emissions</li> <li>Expanding R&amp;D investment and human capital input to develop eco-friendly products</li> </ul>	<ul style="list-style-type: none"> <li>Profit</li> </ul>	<ul style="list-style-type: none"> <li>Expanding eco-friendly product lineup               <ul style="list-style-type: none"> <li>Introducing eco-friendly powertrain products (electrification, hydrogen) and expanding lineup for fuel efficiency improvement</li> </ul> </li> <li>Eco-friendly solution               <ul style="list-style-type: none"> <li>Unveiling Site Management and Concept-X2</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>2025               <ul style="list-style-type: none"> <li>Securing technologies for eco-friendly future powertrain (Hybrid/H2ICE)</li> <li>Smart maintenance 4,322,400 hours</li> </ul> </li> </ul>	<b>Demonstration of hybrid power train mounted construction equipment</b>  <b>Smart maintenance 1,966,331 hours</b>  <b>Starting up the first hydrogen combustion engine</b>	Securing technologies for eco-friendly future powertrain (Hybrid/H2ICE)
<b>3</b> <b>Workplace safety and health</b>	<ul style="list-style-type: none"> <li>Non compliance with laws on safety and health</li> <li>Establishment of safety net by managing risk factors</li> </ul>	<ul style="list-style-type: none"> <li>Violation of relevant laws and regulations, such as the Serious Accidents Punishment Act, resulting in monetary losses, including fines and damages, and damage to company's reputation</li> </ul>	<ul style="list-style-type: none"> <li>Risk</li> <li>Cost</li> </ul>	<ul style="list-style-type: none"> <li>Operation of safety and health policies               <ul style="list-style-type: none"> <li>Establishing a health and safety policy for all stakeholders, including employees and suppliers, to create a safe work environment</li> </ul> </li> <li>Creating safety and health culture and building capacity               <ul style="list-style-type: none"> <li>Supporting for safety culture programs, training, grievance channels, and consulting to suppliers</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>2025               <ul style="list-style-type: none"> <li>LTIR 0.40</li> <li>OIFR 0.13</li> </ul> </li> </ul>	<b>LTIR 0.83</b> <b>OIFR 0.23</b>	LTIR 0.80

**Key Issues Related to External Stakeholders**

	Value chain	Stakeholder	Impact scope	Impact type	Relevance and significance to external stakeholders	Estimated metric	Impact assessment	Impact metric
<b>1</b> <b>Response to climate change</b>	<ul style="list-style-type: none"> <li>Worksite, suppliers, products and services</li> </ul>	<ul style="list-style-type: none"> <li>Consumers, end users, supply chain, customers</li> </ul>	<ul style="list-style-type: none"> <li>100%</li> </ul>	Positive/negative (neutral)	<ul style="list-style-type: none"> <li>Growing demand for response to climate change by major stakeholders including customers and investors</li> <li>Trend of strengthening environmental regulation globally</li> </ul>	Greenhouse gas emissions reduction	Environmental/Social	Long-term Value - Greenhouse gas emissions
<b>2</b> <b>Supply chain management</b>	<ul style="list-style-type: none"> <li>Worksite, suppliers</li> </ul>	<ul style="list-style-type: none"> <li>Suppliers</li> </ul>	<ul style="list-style-type: none"> <li>100%</li> </ul>	Positive/negative (neutral)	<ul style="list-style-type: none"> <li>Strengthening demand and regulation on supply chain ESG management such as Corporate Sustainability Due Diligence Directive of EU</li> <li>Increased need for ESG risk management throughout the industry value chain including suppliers</li> </ul>	Ratio of suppliers subject to ESG assessment Inspection on improvement of high-risk suppliers	Social	Long-term Value - Technology development of suppliers - Activities to support working environment of suppliers

# 2023 Highlights

**RE100**  
CLIMATE GROUP

Joining  
RE100

**TCFD**  
TASK FORCE ON  
CLIMATE-RELATED  
FINANCIAL  
DISCLOSURES

Declaring support for  
TCFD

**WE SUPPORT**  
UN GLOBAL COMPACT

Joining  
UN Global Compact

Member of  
**Dow Jones  
Sustainability Indices**  
Powered by the S&P Global CSA

Included in  
**Dow Jones  
Sustainability Indices**  
(DJSI Korea)

**ENVIRONMENTAL SOCIAL GOVERNANCE**  
**A**  
KCGS  
2022

Acquiring  
Grade A in KCGS  
ESG evaluation

**ESG RATING**  
**A**  
2023

Acquiring  
SUSTINVEST  
A grade

**MSCI**  
ESG RATINGS

**BBB**

Acquiring  
MSCI BBB  
grade

**CDP**  
DRIVING SUSTAINABLE ECONOMIES

Acquiring  
CDP A-(Leadership)  
grade

HD Hyundai Infacore Co., Ltd.  
Machinery and Electrical Equipment  
**Industry Mover**  
S&P Global Corporate Sustainability  
Assessment (CSA) Score 2023

Acquiring  
CSA  
Industry  
Mover grade

**CoREi**  
기업 재생에너지 이니셔티브

Participating in  
Corporate Renewable  
Energy Initiative (CoREi)

**K-EV100**

Acquiring  
Korea Electric  
Vehicle 100 (K-EV100)

**BNBP** 기업과 생물다양성 플랫폼  
Biz N Biodiversity Platform

Participating in  
Biz N Biodiversity  
Platform (BNBP)  
initiative



# 2023 Highlights

Increase in energy savings



YoY  
**13%** ▲

Increase in environmental investment operation expenses



YoY  
**36%** ▲

ZWTL certification



**Gold**

Total volunteer hours



**9,046** hours

Increase in the number of suppliers which received support for ESG improvement



YoY  
**25%** ▲

Increase in shareholder value improvement



YoY  
**61%** ▲

For the first time in Korea



Launching  
**130** ton-excavator

HX12 hydrogen combustion engine



Starting up the **1st**

Reduction in waste generation



YoY  
**20%** ▼

Decrease in CEO-employee remuneration ratio



YoY  
**16%** ▼

Decrease in Lost Time Injury Frequency Rate



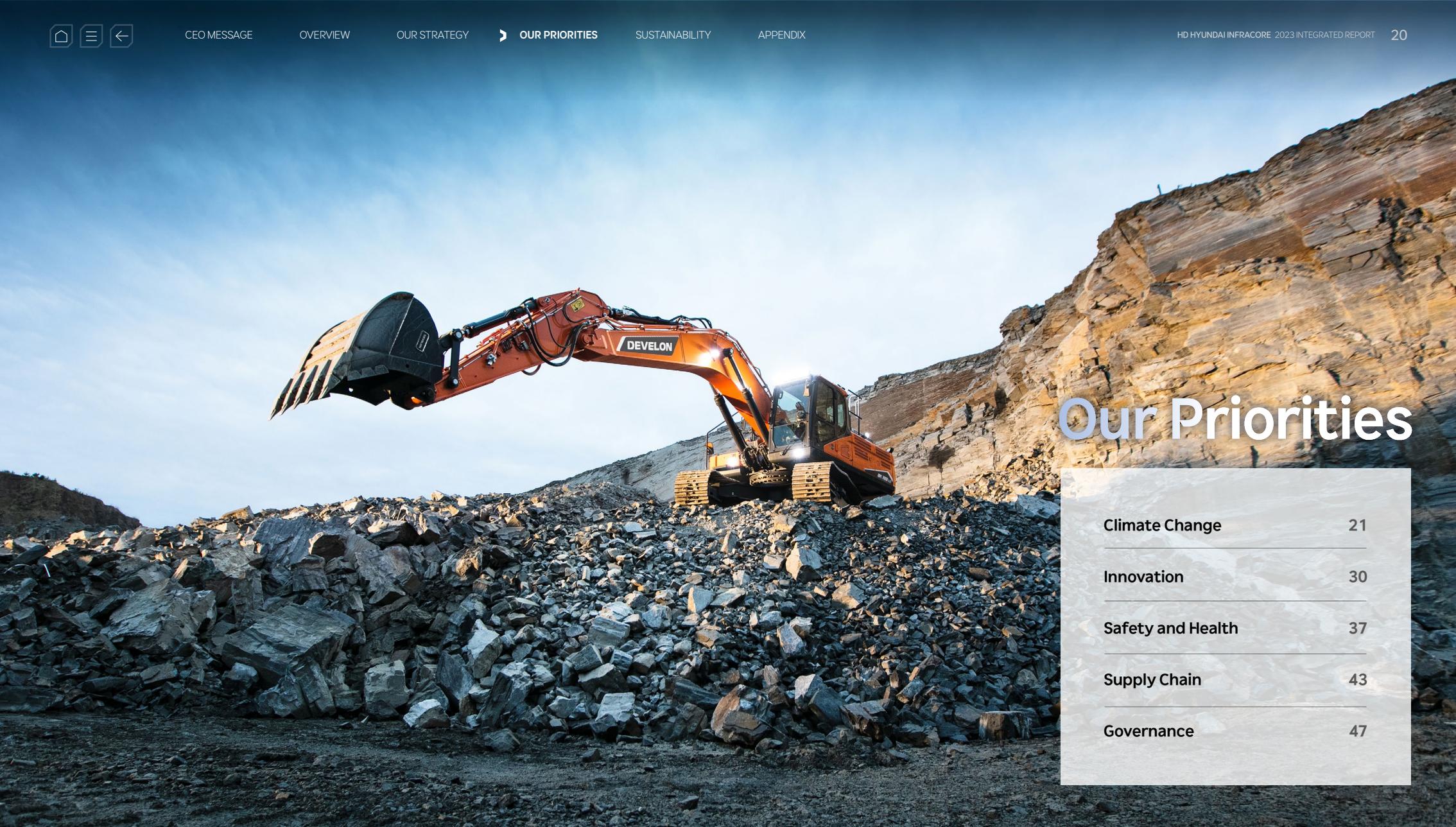
YoY  
**30%** ▼

Decrease in Occupational Illness Frequency Rate



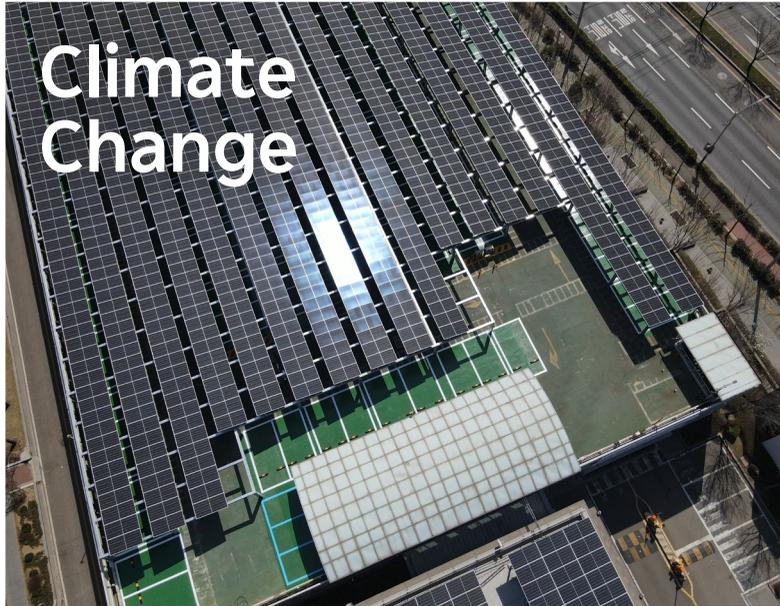
YoY  
**23%** ▼





# Our Priorities

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Innovation	30
Safety and Health	37
Supply Chain	43
Governance	47



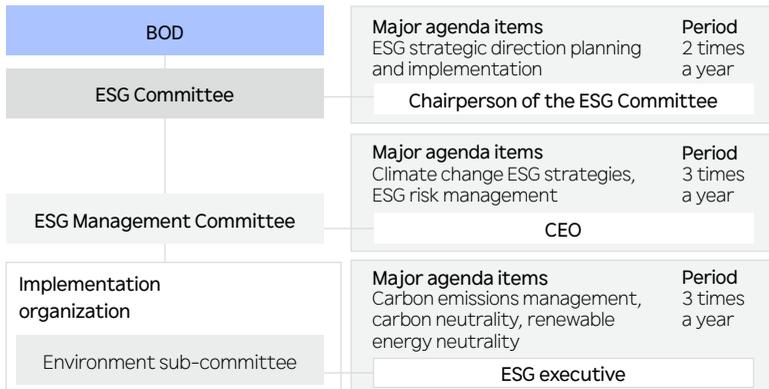
## Climate Change Governance

**Supervision by the BOD** | HD Hyundai Infracore has established and operates climate change governance to clearly understand climate change issues affecting its business strategy and set the right direction. The BOD conducts management and supervision of all issues related to climate change response, including climate change strategy and investment, and operates the ESG Committee, a sustainable management organization under the BOD, to oversee major climate-related risks and opportunities. The ESG Committee is composed of the CEO and outside directors, and deliberates and approves ESG strategic direction, planning, and implementation, including climate change-related issues, and social responsibility-related matters. The ESG Committee receives reports from the Chief ESG Officer on climate change issues and requests the company to submit and report the data required for review.

**Roles and Responsibilities of the Management** | HD Hyundai Infracore has established and operates an ESG Management Committee chaired by the CEO. As the highest decision-making body at the executive level, the ESG Management Committee oversees overall climate change response activities and environmental management, including greenhouse gas emissions, and is responsible for the selection and execution of climate-related strategic tasks such as carbon neutrality strategy and RE100.

**Objectives and Remuneration of the Management** | The management is responsible for responding to climate change, and to effectively reduce greenhouse gas emissions, we link their compensation to climate change-related performance indicators. In 2023, we operated energy intensity reduction as a key performance indicator (KPI) to strengthen the motivation to implement greenhouse gas emissions reduction, and in R&D, we operated eco-friendly technology development as a KPI to continuously manage climate change response through eco-friendly technology and product development.

### Decision-making System on Climate Change



### ESG Committee Held in 2023

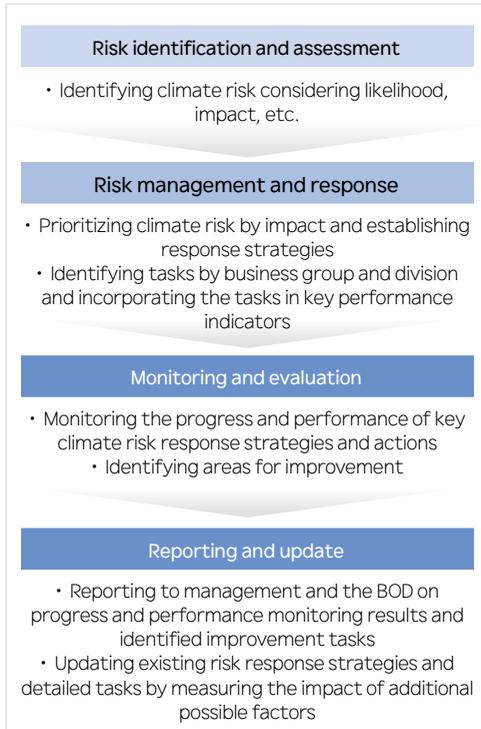
Date	Agenda	Decision
Mar. 27, 2023	Report on and approval for major ESG implementation plans (Securing renewable energy by introducing solar power generation in the company, etc.)	Approved
	Approval for the establishment of environmental management policy	Approved
Dec. 7, 2023	Report on the results of implementing 2023 ESG tasks	Reported
	Report on the results of ESG management support for supply chain	Reported

[TCFD report of HD Hyundai Construction Equipment Sector](#)



## Climate Change Risk Management

HD Hyundai Infracore has established a process to assess and manage climate change risks, identifying key climate risks and opportunities that may affect the business and identifying financial and non-financial impacts through scenario analysis to establish response strategies. Key climate risks are reported to management and the BOD and reflected in the next year's climate change action plan.



**Climate Change Scenario Analysis** | HD Hyundai Infracore conducted an analysis under various climate scenarios, ranging from gradual mitigation of climate change to intensification of the climate crisis in order to understand the impact of climate change-related risks and opportunities on the business and analyze the potential financial impact. The IEA scenario, NGFS scenario, and HD Hyundai Infracore's own scenario were applied to analyze transition risk, which is the risk of transitioning to a low-carbon economy. The IPCC scenarios were used to analyze physical risks due to climate phenomena such as temperature rise, sea level rise, and natural disasters, and our own scenarios based on the IPCC scenarios were applied to analyze the financial impacts of climate opportunities.

### Climate scenario analysis

IPCC Scenario		
Physical risk analysis		
Presenting RCP scenario (representative concentration pathways) considering radiative forcing by carbon dioxide concentration and SSP scenario (shared socioeconomic pathways) considering climate change adaptation and mitigation efforts		
Background of selection		
Adoption of SSP scenario that reflects a country's actual greenhouse gas emission reduction efforts and degree of changes in society and economy		
Classification	Major assumptions	Average temperature increase (2100)
SSP 1-2.6	Assuming eco-friendly economic growth with expansion of renewable energy introduction	+1.9°C
SSP 2-4.5	Assuming mitigation of climate change and moderate level of socio-economic development	+3.0°C
SSP 5-8.5	Assuming continued expansion of fossil fuel use and reckless development	+5.2°C

IEA Scenario		
Analysis of transition risk and opportunities		
Presenting three scenarios with information on future trends on the price of major energy sources considering the direction of climate policy in each country and possibility of clean energy technology application		
Background of selection		
Adopting all 3 scenarios to utilize price estimation data by energy source released by IEA through World Energy Outlook (WEO) every year		
Classification	Major assumptions	Average temperature increase (2100)
NZE	Assuming the replacement of fossil fuel by 2030 and net zero achievement by 2050 (+1.4°C)	\$250/tCO <sub>2</sub>
APS	Assuming 40% reduction by 2050 even though each government meets its greenhouse gas emissions reduction target (+1.7°C)	\$200/tCO <sub>2</sub>
STEPS	Assuming continuation of the current policy framework, policy instruments and plans underway (+2.4°C)	\$89/tCO <sub>2</sub>

NGFS Scenario		
Analysis of transition risk and opportunities		
Presenting 4 low-carbon transition pathways based on the intensity and timing of climate policies along with 3 integrated assessment models and 8 detailed scenarios based on the degree of reduction and technological progress.		
Background of selection		
Adopting 3 scenarios which have clear characteristics for each low carbon transition pathway in order to utilize the national electricity price provided by GCAM 6.0 model		
Classification	Major assumptions	Average temperature increase (2100)
NZE2050	Assuming net zero by 2050 (+1.4°C)	\$165/MWh
Delayed Transition	Assuming strong policy adoption to achieve net zero by 2030 after maintaining current policies (+1.6°C)	\$160/MWh
NDC	Assuming countries fulfill their own climate change commitments to meet future temperature targets (+2.6°C)	\$136/MWh

\* SSP(Shared Socioeconomic Pathway) ; NZE(Net Zero Emissions by 2050 Scenario) ; APS(Announced Pledges Scenario) ; STEPS(Stated Policies Scenario) ; NDC(Nationally Determined Contributions) ; GCAM(Global Change Analysis Model); NGFS' integrated assessment model provides scenarios based on data from 32 regions that incorporate energy, technology, and more into analysis

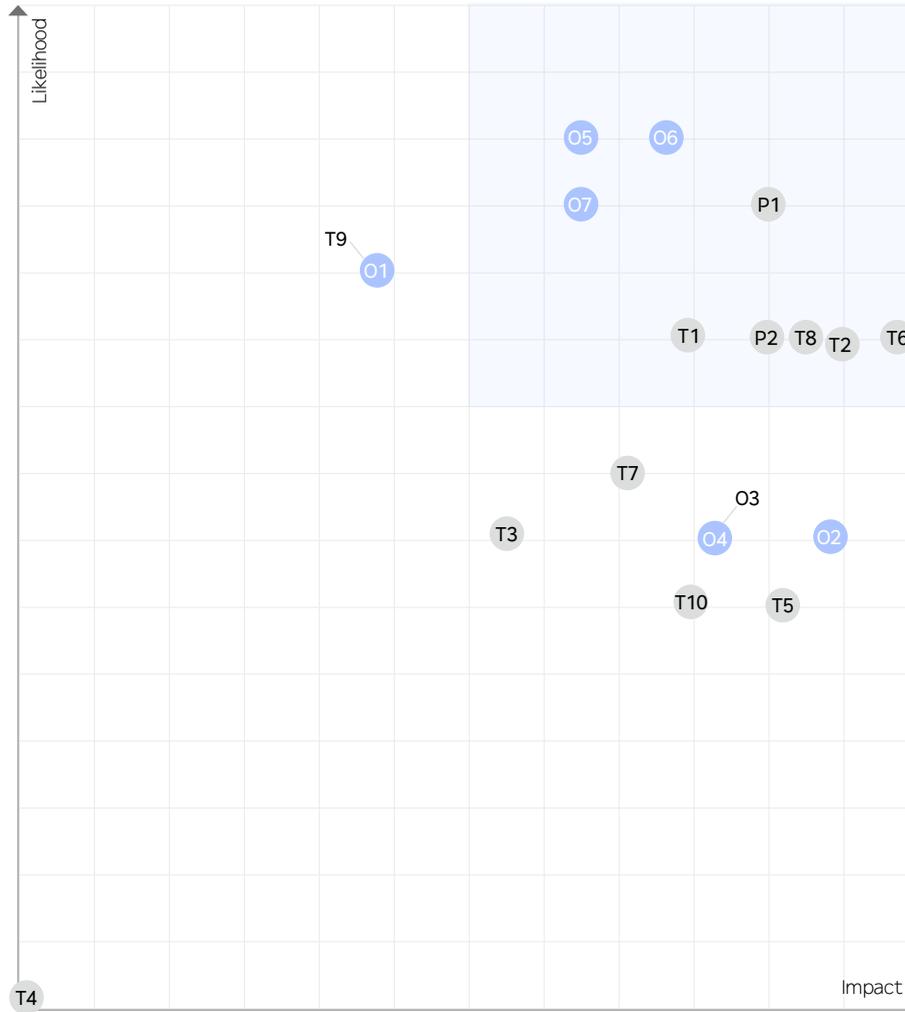
## Strategies to Respond to Climate Change

**Analysis of Climate Risks and Opportunities** | We identify key climate risks and opportunities that may affect our business through our climate change risk process, and identify financial and non-financial impacts through scenario analysis to formulate response strategies. The assessment of climate change-related risks and opportunities is based on a pool of 19 risks and opportunities derived from peer analysis, global initiatives, and internal and external environmental analysis, and assesses the likelihood of occurrence and revenue impact of each risk and opportunity factor on revenue, carbon emissions price (carbon price), and stakeholder demand, as well as the overall likelihood of occurrence, duration, and response capabilities that could affect the business.



1) Business impact: revenue, carbon emissions, stakeholder requirements, etc.  
2) Likelihood: probability of occurrence, duration after occurrence, response capacity, etc.

## Climate Change Related Risk and Opportunity Assessment



## Risk and Opportunity Pool

	Definition of Risk and Opportunity		Value Chain
<b>Physical Risk</b>			
<b>Acute</b>	P1	Typhoon, flood	Worksite
<b>Chronic</b>	P2	Heat waves, drought	
<b>Transition Risk</b>			
<b>Technology</b>	T1	Decreasing competitiveness of eco-friendly power technologies	DownStream
	T2	Decrease in the share of internal combustion engine products	
<b>Market</b>	T3	Stagnant demand for electric products	
	T4	Unstable power procurement at overseas worksites	Worksite
	T5	Increase in market uncertainty	DownStream
	T6	Increase in power purchase cost	Worksite
<b>Policies and laws</b>	T7	Uncertainty about the achievement of 2040 RE100	
	T8	Increase in carbon credit price	
	T9	Obligation to report emissions by country	
<b>Reputation</b>	T10	Increase in negative reputation	
<b>Opportunity</b>			
<b>Market</b>	O1	Expansion of eco-friendly construction equipment market	DownStream
	O2	Expansion of policies on support for eco-friendliness	Worksite
<b>Resource efficiency</b>	O3	Improvement of energy efficiency in the production process	
	O4	Improvement of energy efficiency in worksite buildings	
<b>Products and services</b>	O5	Increase in the demand for products to which fuel efficiency improvement technologies are applied in the short to mid term	DownStream
	O6	Expansion of demand for products to which electrification technologies are applied in the mid to long term	
	O7	Increase in the demand for ICT construction equipment (autonomous)	

**Analysis of Climate Change Scenario** | After identifying material risks and opportunities from climate change and analyzing the financial impact, we identified operational risks due to damage to assets and increased operating costs at our workplaces and business opportunities due to the sale of eco-friendly products. To minimize risks and maximize opportunities related to climate change, we have advanced our workplace carbon neutrality strategy and product use stage carbon emission reduction strategy, and we will monitor the implementation of net zero and product emission reduction under our response strategy to strengthen our climate resilience.

**Identification of Risks and Opportunities and Countermeasures**

Classification	Business Impact	Assessment		Period <sup>1)</sup>			Financial Impact	Financial Impact Calculation Formula	Financial Impact Amount (Unit: KRW 100 million) <sup>2)</sup>		Countermeasures
		Impact (●High)	Likelihood (●Medium)	Short-term	Mid-term	Long-term			Min	Max	
Physical risk	<b>Acute risk</b> Damage to property values and disruption of operations at worksites due to typhoons, flooding, etc.	●	●	L	M	M	Cost to repair damaged assets in the business and losses due to business interruption	Jupiter Intelligence analysis - Data-driven climate modeling analysis of business locations, asset values, and property characteristics	221	239	<ul style="list-style-type: none"> <li>Preventing risks from occurring by establishing a natural disaster response alert system</li> <li>Conducting regular monitoring of physical risks by establishing contingency plans for natural disaster response</li> <li>Implementing a roadmap to reduce Scope 1&amp;2 emissions at worksite</li> <li>Building internal capacity to achieve net-zero and RE100 by 2050</li> <li>Establishing and implementing a sales portfolio of fuel efficiency improvement and electrified products</li> <li>Expanding the share of R&amp;D for eco-friendly products</li> </ul>
	<b>Chronic</b> Damage to property values and disruption of operations at worksites due to heat waves, drought, etc.	●	●		L	M		- Cost of damage to property + operating losses	20	26	
Transition Risk	<b>Policies and laws</b> Strengthening domestic emissions trading scheme and increasing certified emission reduction	●	●	L	M	H	Increase in greenhouse gas emissions cost with increasing carbon credit price	Annual carbon credit purchase amount x annual KAU price	278	890	
	<b>Market</b> Increase in power purchase cost in the mid to long term if the transition to renewable energy is delayed	●	●		L	M	Increase in operating cost to achieve carbon neutrality and RE100	Annual electricity consumption x Annual unit price of electricity	11	197	
	<b>Technology</b> Decrease in competitiveness due to deepening eco-friendly power (electrification) technology gap compared to competitors Decrease in the share of products as the existing internal combustion engine are replaced by internal combustion products with less carbon emissions (fuel efficiency improvement technology)	●	●		M	M	Decrease in sales from products with improved fuel efficiency	Total revenue x Share of products to which green technology is applied x Share of green technology patents Sales from advanced markets x Share of products with improved fuel efficiency	2,835	6,498	
Opportunity	<b>Products and services</b> Expansion of demand for construction equipment to which fuel efficiency improvement technologies are applied for carbon emissions reduction	●	●		H	H	Increase in sales from products with improved fuel efficiency	Annual number of products to which fuel efficiency improvement technologies are applied sold x Unit price of products to which fuel efficiency improvement technologies are applied	112	63,021	
	Expansion of demand for construction equipment to which electrification technology is applied for carbon emission reduction	●	●			H	Increase in sales from electrified products	Annual number of products to which electrification technologies are applied sold x Unit price of products to which electrification technologies are applied	4,507	99,867	
	Increase in demand for ICT construction equipment (autonomous) due to more disaster recovery site	●	●			M	Increase in sales from autonomous products	The number of autonomous products per year x Unit price	514	522	

**Physical Risk Adaptation Plan**

In order to mitigate physical risks identified through climate change scenario analysis, we established adaptation plans by period for existing plants and the newly integrated Tianjin worksite in China in 2023.

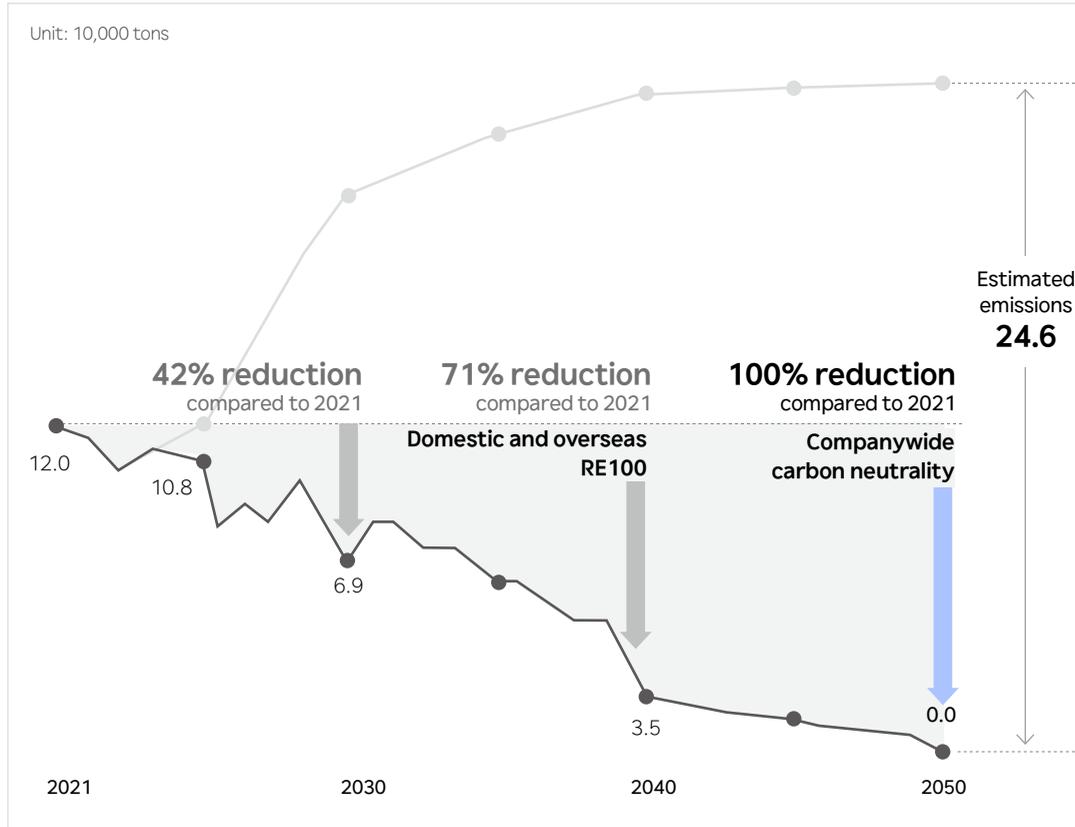
Classification	Period <sup>1)</sup>	Response Strategies of Each Worksite	New Worksite	Existing Worksite
<b>Typhoon</b>	<b>Mid-term</b>	Reinforce building structures against wind pressure	-	All domestic worksites, Norway, Yantai (China)
<b>Flood</b>	<b>Mid-term</b>	Establishing contingency plan for flooding, reviewing installation of waterfront protection structures	Tianjin (China)	Gunsan, Yantai (China)
<b>Heatwaves</b>	<b>Short-term</b>	Continuous monitoring of energy consumption pattern changes at worksites due to climate change	Tianjin (China)	Bundang, Incheon, Norway
<b>Drought</b>	<b>Short-term</b>	Diagnosing the reuse of water at worksites to prepare for water shortages/ Identifying items for water reuse	Tianjin (China)	All domestic worksites, Yantai (China)

1) Short-term: ~2024, Mid-term: 2025~ 2029, Long-term: 2030 and beyond

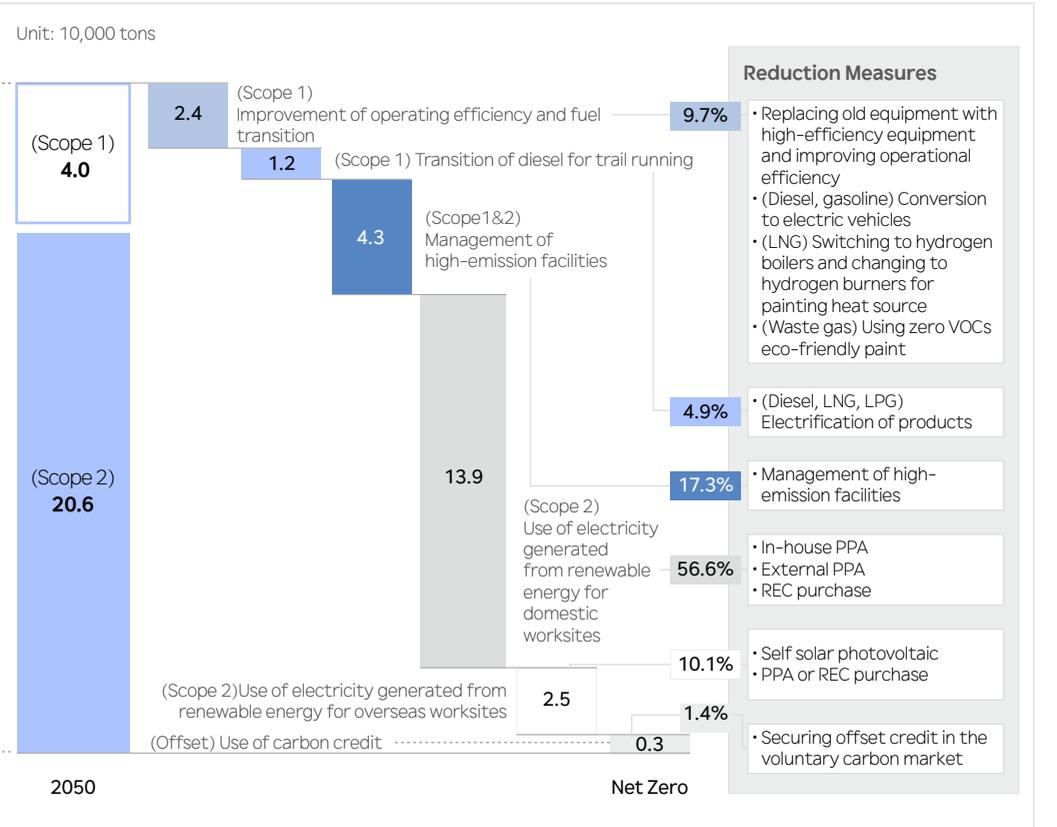
2) Financial impact amount as of 2032 for physical risk, accumulated financial impact amount by 2032 for transition risks and opportunities

**2050 Carbon Neutrality Strategy** | HD Hyundai Infracore aims to achieve carbon neutrality at its global operations, including 100% transition to renewable energy by 2050, in order to participate in the response to climate change related crises and contribute to the transition to a low-carbon economy. To this end, we have set a BAU (Business-As-Usual) that considers the growth rate until 2050 and established a mid- to long-term carbon neutrality strategy based on the 1.5 scenario of Science Based Target Initiative (SBTi) tool. We plan to actively reduce GHG emissions from our domestic operations in Incheon and Gunsan by 42% by 2030 and 71% by 2040 compared to 2021, and to achieve net zero by 2050. To achieve the goal of carbon neutrality, a portfolio of reduction measures was derived by comprehensively considering the investment cost, feasibility, and potential reduction amount of each reduction measure, and 67% of carbon emissions will be reduced by introducing renewable energy, 17% will be reduced by managing and improving high-emitting facilities, and the remaining 16% will be reduced by improving old facilities and electrifying products.

**Carbon Neutrality Implementation Roadmap for Worksite**



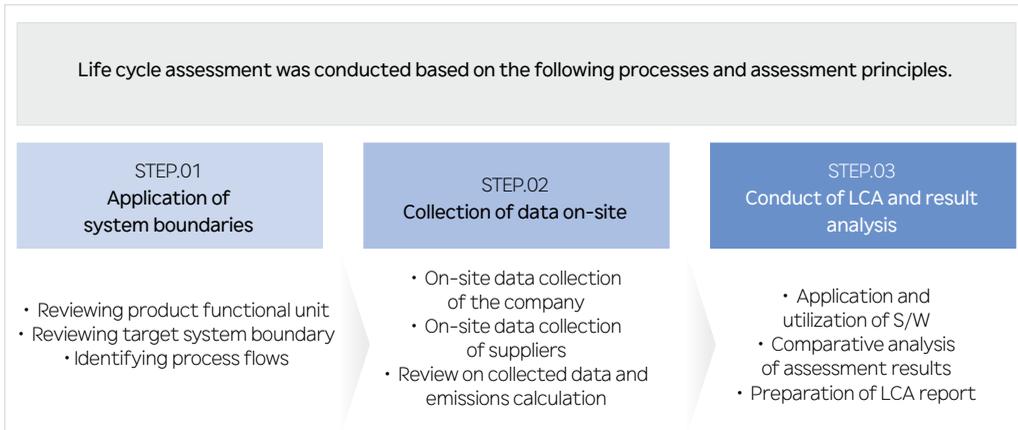
**Portfolio for Reduction Measures**



**Life Cycle Impact Assessment** | Due to the strengthening of regulations such as the Carbon Border Adjustment Mechanism (CBAM), the new battery regulation, and the strengthening of the Eco Design Directive in Europe, the need for life cycle assessment at the product level is increasing, and HD Hyundai Infracore conducted a carbon footprint measurement for construction machinery to proactively respond to this and manage carbon neutrality in the value chain. Carbon dioxide emissions were measured throughout the entire life cycle of construction machinery, including the collection of raw materials, processing of parts and manufacturing of finished vehicles, operation of construction machinery equipment, and recycling and disposal, and were evaluated using the Full-LCA method for five representative models of construction machinery in 2024. The ratio of the five representative models is 1.7%, and we plan to gradually expand the number of models to be evaluated in the future.

Classification	Assessment Principle
Foundational standards	ISO14040 and ISO14044
System boundaries	Cradle to grave
Data collection method	Data measured on site (Primary Data) Reliable literature (Secondary Data)
Calculation method	IPCC 2021 AR6 LCIA Method(GWP-100 application)

**Life Cycle Assessment Process**



**Impact of DL550-7 on Global Warming by Phase (greenhouse gas emissions)**

The carbon emissions of the DL550-7 model, a representative construction machine of HD Hyundai Infracore, are as follows for each stage of the LCA. The table below shows the carbon dioxide emissions from cradle to grave (raw material extraction to disposal of the product at the end of its life) in kgCO<sub>2</sub>-eq per unit time (kgCO<sub>2</sub>-eq / operating time (h)). The scenario is based on an average of representative models of the product sold, and emissions are not representative of any specific situation.



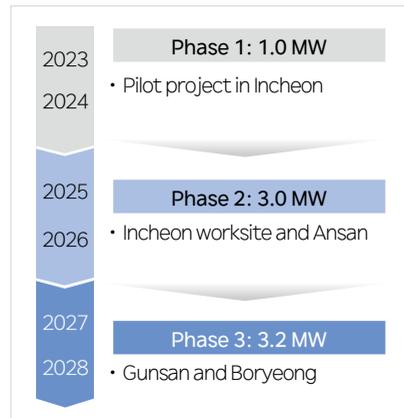
HD Hyundai Infracore is preparing a manual that synthesizes all the issues identified during the development of customized Product Category Rules (PCR) for construction machinery products and LCA, and plans to internalize the capability of LCA calculation and carbon footprint management within the company through relevant training. Based on the results of the LCA, we will comprehensively analyze the environmental impact of each step of the entire process and establish a system to manage the products we produce, creating a foundation for a sustainable operating system and transparently sharing product environmental information externally to enhance competitiveness in product eco-friendliness.

1) Figures may vary depending on model options and specifications

**Adoption of Renewable Energy** | HD Hyundai Infracore is adopting renewable energy to achieve '2040 RE100'. In 2022, we signed a 5 MW external solar energy supply contract, and in 2023, we became the first HD Hyundai affiliate to supply 2 MW of solar power to the Gunsan worksite through a renewable energy PPA (Power Purchase Agreement), and in 2023, we signed an additional 5.5 MW PPA, securing a total of 10.5 MW of supply contracts. The supply amount secured is 85% of the electricity consumption of the Gunsan worksite, and we plan to expand the supply of electricity using renewable energy by gradually applying it to worksites by the end of 2024.

In addition, we have established an in-house solar master plan by 2028 to reduce electricity consumption through self-generation using solar energy. 2023 was the first phase of the master plan and we completed the construction of a solar self-generation facility using the roof of buildings and parking lots at our Incheon worksite and began supplying renewable energy in April 2024. The annual output of the facility is 1.3 GWh, and most of the electricity generated will be consumed at the worksite, reducing energy losses in the transmission and distribution process, saving more than KRW 100 million in annual electricity bills, and reducing carbon emissions by 600 tons per year. HD Hyundai Infracore will continue to strive to achieve RE100 by 2040 through the step-by-step implementation of solar self-generation, external procurement of renewable energy (PPA), and purchase of Renewable Energy Certificate (REC).

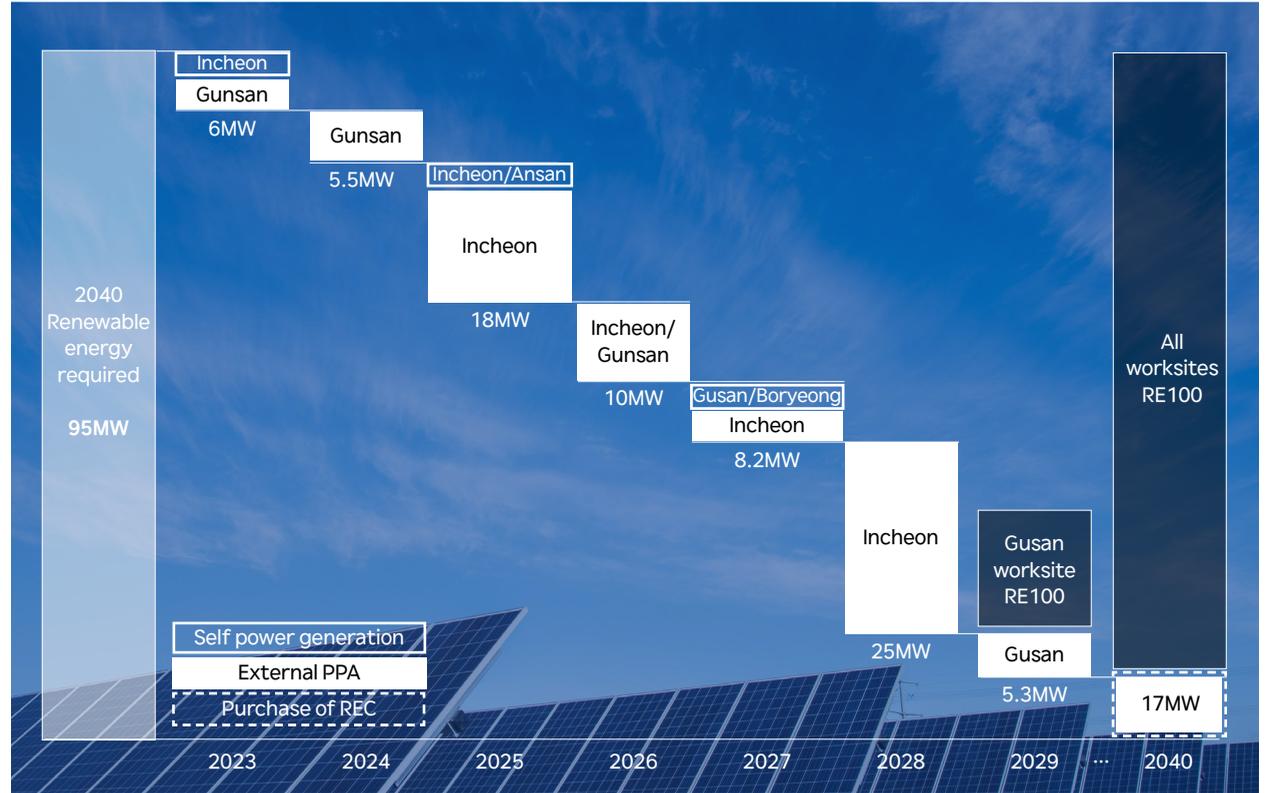
**In-house Solar Energy Master Plan**



View of Solar Self-Generation Facility at Incheon Worksite



**RE100 Implementation Pathway at Domestic Sites**



**RE100 Focused Implementation Strategy**

<b>Self power generation</b>	Introduction of renewable power generation facilities including photovoltaic panels within work sites
<b>External PPA</b>	PPA (Power Purchase Agreement)- Procuration power based on agreement with sellers
<b>Purchase of REC</b>	REC (Renewable Energy Certificate)- Signing REC purchase agreement in collaboration with local power generation business operator

## Energy Management

### Energy Governance and Target Management

HD Hyundai Infracore operates the Energy Management Council for company-wide energy reduction activities. The Energy Management Council establishes an annual company-wide energy use plan, establishes a basic plan for rationalizing energy use, organizes company-wide energy management training and events, and sets energy unit guidelines, and monitors and manages monthly energy performance and unit performance by headquarters. In 2023, the goal of reducing energy consumption by 1% per unit compared to the previous year will be reflected in the KPIs of employees, including the CEO, and the evaluation results will be linked to compensation to promote active energy reduction activities by all employees.

Classification	2022 Outcome	2023 Outcome
Energy intensity of construction equipment manufacturing	0.0326*TJ/unit	0.0306TJ/unit
Energy intensity of engine manufacturing	0.0133TJ/unit	0.0129TJ/unit

\* Data correction due to changes in energy use data collection standards

#### Energy Management Council

Chairperson

Facility Management Team

#### Corporate Members

- Environmental Management Team
- ESG Team
- Facility Management Team

#### Construction Equipment Members

- Global Production Technology Team

#### Engine Members

- Processing Production Technology Team

#### Regional Members

- Gunsan Production Technology Team
- Gunsan/Ansan EHS/Facility Team

### Energy Efficiency Management

HD Hyundai Infracore predicts greenhouse gas emissions based on annual production plans and identifies tasks to improve energy efficiency and save energy at its workplaces to achieve emission targets. We established and upgraded the energy intensity management system and the Factory Energy Management System (FEMS) as a major energy-related initiative in accordance with the implementation of the government's national project 'Development and Demonstration of Standardized Platform for Factory Energy Management System'. The FEMS is built as an energy reporting base that enables us to monitor energy usage and costs, monthly usage trends by energy source, and energy source unit performance in relation to production volume, thereby identifying key energy use areas and opportunities for energy efficiency improvement. In addition, we are continuously upgrading (expansion and upgrade) energy measurement equipment to improve data reliability. We are also conducting company-wide energy reduction activities, such as energy campaigns, introduction of high-efficiency equipment (pneumatics, transformers, boilers, etc.), operational improvements, and retirement of obsolete equipment, centered on the Energy Management Council, and will continue to identify energy reduction and management items.

### 2023 Energy Saving Activities and Outcome

Classification	Saving Activities		Saving Amount	Investment Amount (KRW 1 million)
Equipment replacement·improvement	4 cases	Replacement of aging utility supply equipment (transformers, boilers, pneumatics, etc.)	Power 3.3 TJ	70
Rationalization of operation management	3 cases	Annual maintenance of outdoor units of air conditioners	Power 3.0 TJ	36
Lighting improvement	7 cases	Replacement of LED at production worksite	Power 2.3 TJ	47
Improvement of operation·process	3 cases	Application of inverter to pumping station	Power 0.2 TJ	4
Summary	A total of 17 cases	Saving energy consumption by 8.8 TJ		157

### Implementation of Emissions Trading Scheme

HD Hyundai Infracore is a company subject to the Emission Trading Scheme and has been included in the third emissions trading scheme in 2021, strictly complying with the Act on the Allocation and Trading of Greenhouse Gas Emission Permit. The government is strengthening policies and regulations to respond to climate change, such as enacting and implementing the Framework Act on Carbon Neutrality and setting the 2030 nationally determined contribution (NDC) at 40%. To respond to these government policies and regulations, we are strengthening legal monitoring, managing GHG inventory, and reducing emissions, and we will continue to identify reduction investment items and establish and implement investment plans to achieve carbon neutrality by 2050.

### Factory Energy Management System (FEMS)



## Climate Change Metrics

In line with our 2050 carbon neutrality goal, we have set an interim target of reducing GHG emissions (Scope 1 and 2) from our domestic operations by 50% in 2030 compared to 2020 emissions, and to achieve this goal, we plan to prioritize internal self-saving activities such as maximizing energy consumption efficiency and expand the purchase of renewable energy. In addition to Scope 1 & 2, we are calculating Scope 3 GHG emissions to reduce GHGs in the entire value chain, and we aim to gradually achieve carbon neutrality by 2050 by continuously managing and reducing them.

### Full Value Chain GHG Emissions

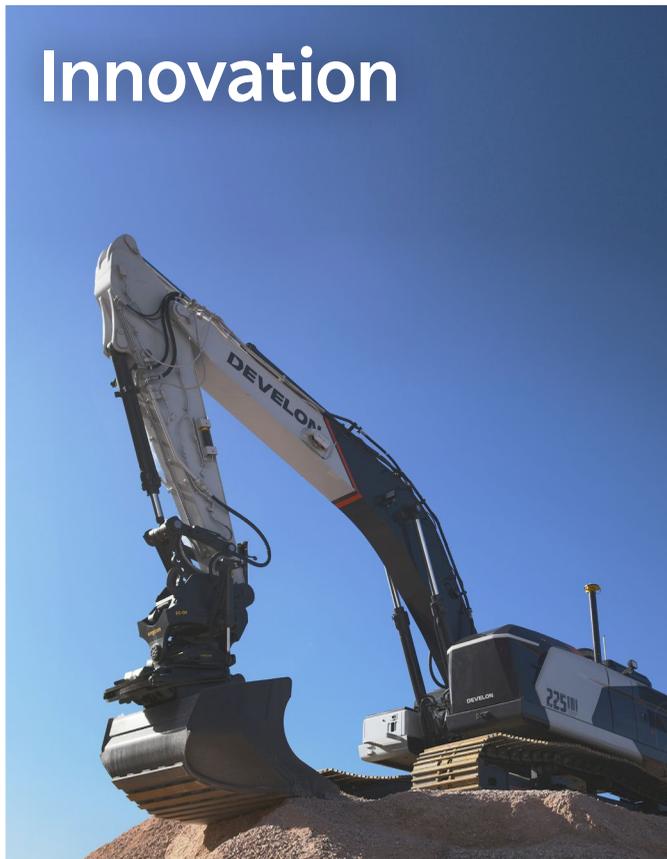
 Unit: tonCO<sub>2</sub>

Classification	Scope	Classification	Emissions
Upstream	Scope 3	Purchased goods and services	51,415.3
		Capital goods	630.1
		Fuel and energy-related activities	10,022.8
		Upstream transportation and distribution	146,652.2
		Waste generation/disposal	1,242.5
		Employee travel	1,131.6
		Employee commute	1,069.7
Operation	Scope1&2	Fuel combustion (Scope1)	26,304.3
		Power usage (Scope2)	68,175.1
Downstream	Scope 3	Downstream transportation and distribution	798.1
		Use of products sold	6,917,977.8
		Disposal of products sold	2,598.2
		Investment	10.6

### Key Measurement Metrics

		2022	2023	2024	2030
		Actual	Target	Actual	Goal
Greenhouse gas emissions (Scope 1&2)	tonCO <sub>2</sub>	104,296	104,062	94,479	45,158 50% reduction <sup>1)</sup> (based on 2020)
Greenhouse gas emissions intensity	tonCO <sub>2</sub> /KRW 100 million	2.48	2.45	2.23	2.32 76% reduction (based on 2020)
Energy consumption	TJ	2,041	2,355	1,832	2,230 2,073
Accumulated energy savings	TJ	921	601	1,751	1,024 7,041
Amount of renewable energy adopted	MW	0	2	2	7 107
Amount of renewable energy adopted	%	0	1.06	1.06	3.47 81

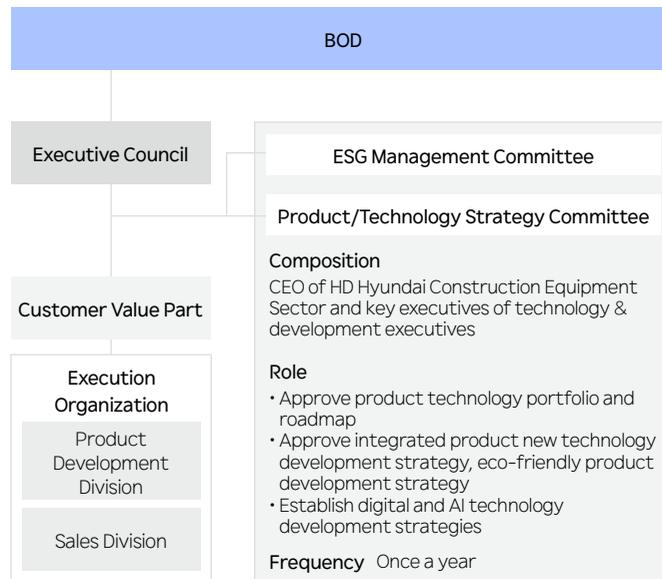
1) Based on emissions at domestic worksites



### Eco-friendly Management Governance

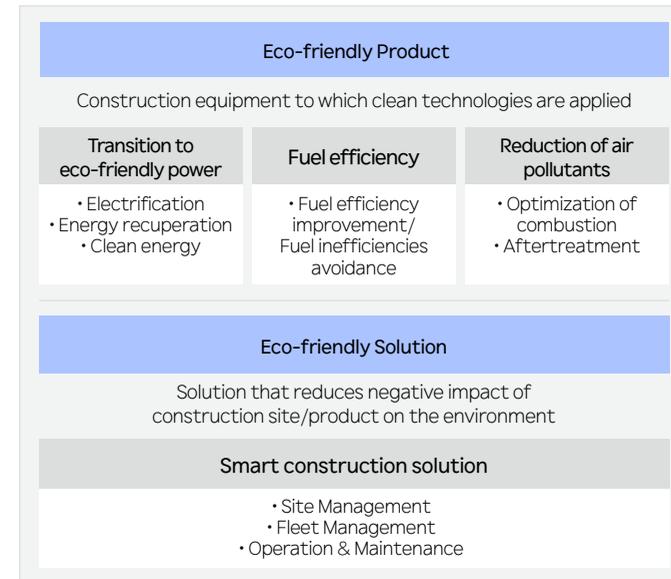
HD Hyundai Infracore is making efforts to research and develop eco-friendly products to respond to climate change. The ESG Management Committee, chaired by the CEO, selects, implements, and checks climate-related strategic tasks, and the Customer Value Part under the ESG Management Committee is working on detailed tasks such as developing eco-friendly products. In particular, the Product Strategy Committee and the Technology Strategy Committee are held to create synergy between research and development of HD Hyundai Construction Equipment Sector, monitor market regulations and policies for eco-friendly technologies and products, flexibly adjust strategies, and conduct research and development exchanges.

#### Governance Related to Eco-friendly Technologies



**Eco-friendly Products Taxonomy** | In order to manage the development and sales of eco-friendly products continuously and systematically, we have our own eco-friendly product taxonomy that reflects the EU Green Taxonomy and K-Taxonomy. The eco-friendly product taxonomy defines “eco-friendly products” as products that apply clean technology and meet market regulations, and “eco-friendly solutions” as solutions that reduce the negative environmental impact of construction sites and products, and we will continue to develop product technologies and solutions in the future.

#### Eco-friendly Taxonomy

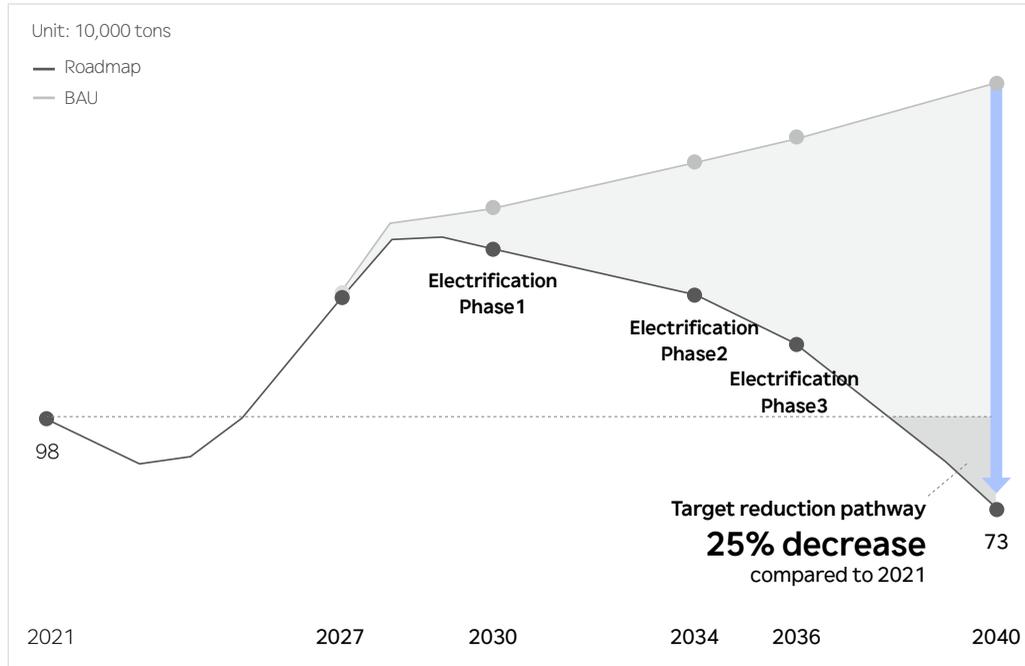


### Eco-friendly Product

We are continuously developing eco-friendly R&D products, such as switching to electric and hydrogen power sources in order to respond to the growing demand for eco-friendly products proactively. As a result of the analysis, it was confirmed that the largest proportion of carbon emissions in the value chain is 'carbon emissions at the product use stage', and we have established a 2040 emission reduction target that takes into account the emission status, related systems, market trends, and internal capabilities. HD Hyundai Infracore plans to continuously reduce carbon emissions from the product use stage by 2040 through the application of eco-friendly technologies such as electrohydraulics and electrification.

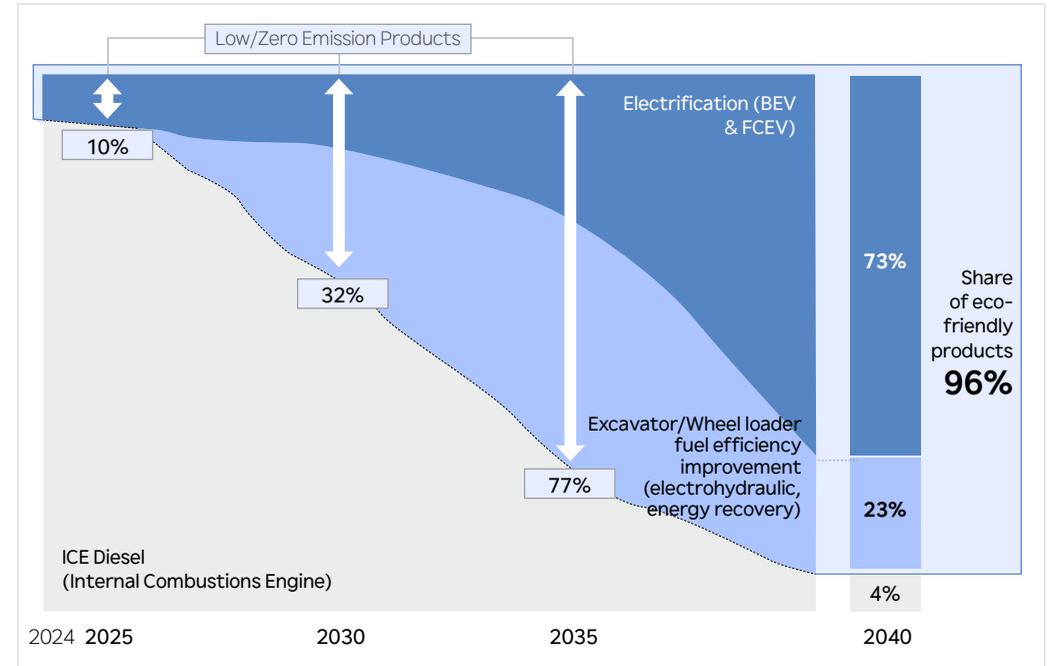
**Strengthening Product Portfolio Based on Carbon Emissions Reduction Strategy** | We have established carbon emissions reduction strategies for all product lines in order to meet the emissions reduction target for product use and meet the diverse needs of our customers at the same time. In the mid- to long-term, we aimed to shift our business portfolio to eco-friendly power sources, such as electric and hydrogen products, in order to keep pace with global eco-friendly trends and proactively respond to strengthened environmental regulations. In the short-term, we aimed to minimize greenhouse gas emissions from internal combustion engine products, which account for the largest share of sales, while establishing a balanced portfolio of construction machinery and engine products by applying fuel efficiency improvement technologies and exhaust gas treatment technologies to all products to meet customer requirements.

Reduction Target and Roadmap for Emissions from Product Use<sup>1)</sup>



1) Estimation of annual emissions based on expected sales volume

Eco-friendly Product (High Fuel Efficiency/ Electrification) Sales Portfolio





Engine

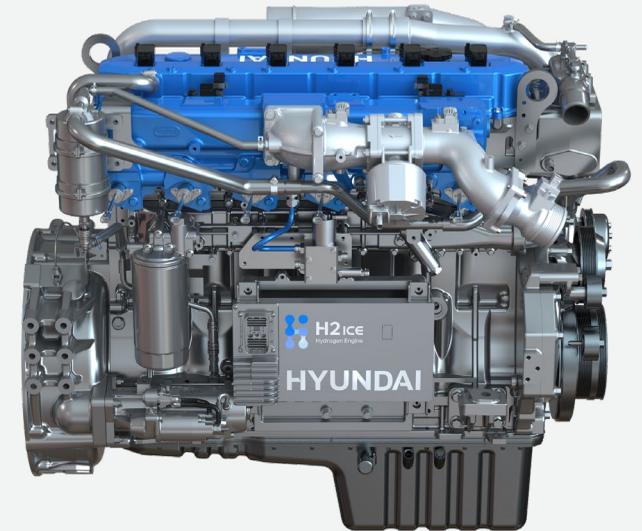
**Transition to Eco-friendly Power | Hydrogen Combustion Engine**

HD Hyundai Infracore is developing hydrogen combustion engines, a future carbon-neutral powertrain technology that produces zero CO<sub>2</sub> emissions and virtually no other air pollutants, based on a high level of diesel and CNG engine technology. A hydrogen combustion engine is a device that generates mechanical power by burning hydrogen as fuel, and since the hydrogen used as fuel does not contain carbon, it has the advantage of producing zero carbon dioxide emissions during combustion. In addition, since the components are similar to internal combustion engines, existing platforms can be utilized, making it easy to apply retrofitting, where the engine of an aging vehicle or piece of equipment is replaced with a hydrogen combustion engine and the existing tank is changed to a hydrogen tank. HD Hyundai Infracore has been developing the HX12 hydrogen combustion engine for vehicles with 300 kW and 11-liter displacement since last year, and in October 2023, it established a hydrogen supply facility and a dynamometer to test the hydrogen combustion engine at its Gunsan worksite. As a result, it is developing the first cargo truck equipped with a hydrogen combustion engine in Korea in the first half of 2024, and is aiming to commercialize it in 2025 by sequentially expanding its application to large buses and 30-ton ex-

cavators. In addition, after successful market entry, we are considering expanding the range of applicable vehicles through the development of the HX12P, a high-power hydrogen combustion engine. We plan to enter the hydrogen power generation market by demonstrating 3,500 hours of power generation by a 200 kWe-class 11-liter displacement hydrogen combustion engine and a 22-liter displacement hydrogen combustion engine in 2026, and sequentially expand the product line after mass-producing hydrogen combustion engines for power generation.

In 2023, we measured the value delivered to stakeholders through the use of hydrogen combustion engines using EY's Long-term Value Framework methodology and found that each hydrogen combustion engines generates an impact value of approximately KRW 390 million. HD Hyundai Infracore aims to maximize positive impacts and create sustainable competitive advantages by identifying the tangible and intangible values of hydrogen combustion engines using hydrogen, a clean energy source for the future.

Hydrogen combustion engine 'HX12'



**Impact Value of Hydrogen Combustion Engine**

**Customer value KRW 20.1 million**

- Recognizes values delivered to customers through products and services
- Estimation based on fuel cost savings from procurement hydrogen combustion engines and construction company Scope 3 emissions reductions

**People Value KRW 43 million**

- Recognizing value that was provided to make long-term improvements to the quality of life of employees (users)
- Estimation of health benefits promotion effect by reducing ultra-fine dust by using hydrogen combustion engines

**Social Value KRW 81.1 million**

- Recognizing value that provides long-term impact on the environment and society where the company exists
- Estimation of GHG emissions cut and air pollutants reductions by using hydrogen combustion engines

**Financial value KRW 252.6 million**

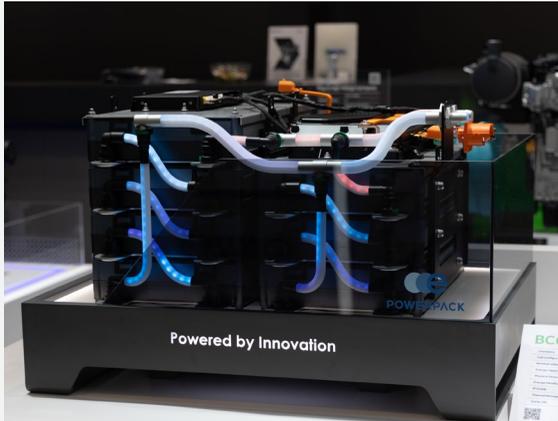
- Recognizing value provided to stakeholders for long-term, sustainable growth of a company's financial value
- Estimation of reduced government subsidies and an increase in revenue for suppliers and the company by using hydrogen combustion engines

**Created social value**

**KRW 397 million**

\* Based on the use of hydrogen combustion engine for 10 years

## Transition to Eco-friendly Power | e-Powerpack



'e-Powerpack'

it in 2026. More recently, we have expanded our e-Powerpack portfolio for the European market, developing new lithium-iron-phosphate (LFP) battery packs outside of our nickel-cobalt-manganese (NCM) pack family that offer a range of voltage and capacity options.

LFP battery packs have advantages in terms of their relatively low cost and fire safety, but they tend to have low energy efficiency due to their short range, bulk and heavy weight. Considering these features, HD Hyundai Infracore aims to provide energy solutions in the construction, industrial, and marine sectors by expanding and developing its e-Powerpack product line so that customers can use the desired battery pack according to their requirements.

We are developing lightweight and small-volume automotive battery packs by realizing high energy density based on battery modularization and pack design technology to enter the electric commercial vehicle market and we have applied 'ASIL-C Level<sup>1)</sup>', the highest level of the international functional safety standard ISO 26262 to our battery packs to maximize the safety of commercial vehicles.

HD Hyundai Infracore plans to expand the scope of battery pack applications by developing products that can be applied to various applications based on its own battery pack technology, and steadily expand its supply sources to emerging countries.

1) ASIL (Automotive safety integrity level): A safety integrity rating (A through D) for failures or malfunctions of automotive electronics in the ISO 26262 functional safety international standard. D is the highest safety level.

## Reduction of Air Pollutants

As emission regulations are tightening worldwide and the demand for exhaust gas treatment devices is increasing with the growing importance of the air environment, we are continuously promoting the development of new technologies for exhaust gas after treatment. The No-DPF Tier 4 Solution is the world's first engine with high efficiency that meets North America's Tier 4 emission regulations without a DPF (Diesel Particulate Filter), applying HD Hyundai Infracore's unique combustion technology, ULPC (Ultra Low Particle Combustion), for which an international patent has been obtained. In addition, it has excellent power and fuel efficiency compared to engines in the same class, compact engine size, which can be mounted on equipment for various applications, and high durability under extreme working environments and driving conditions through optimal design with high rigidity.

In order to meet the most stringent emissions regulations, Euro 6 for vehicles and Stage V for industry, the latest combustion technology, Ultra Low Fuel Consumption (ULFC), and high-efficiency Selective Catalytic Reduction (SCR) technology, which increases NOx (nitrogen oxides) reduction efficiency to 98%, are applied to meet emissions regulations without the need for Exhaust Gas Recirculation (EGR), while delivering best-in-class fuel economy and durability. In addition, the application of SDPF (SCR on DPF) technology, which combines SCR and DPF technologies, dramatically improves the mountability of equipment with limited space for aftertreatment devices.

For marine engines, we applied high-efficiency SCR technology to reduce NOx emissions in exhaust and launched the DX22 engine, which meets the International Maritime Organization's (IMO) Tier 3 regulations. The DX22 engine maximizes space utilization by reducing the size of the engine compared to its peers, and the 'common rail system,' an electronically controlled method of supplying and injecting fuel at high pressure, has improved power output by 15% and fuel efficiency by more than 10% compared to conventional mechanical engines.

'DX08'



'DX22'



**Transition to Eco-friendly Power | Eco-friendly Future**

**Powertrain**

We are developing and advancing cleaner power sources, including hybrids, and expanding our electric powertrain lineup to meet growing demand in the electrification market. Hybrid powertrains utilize electric motor power to deliver strong starting, improved fuel economy and power, and an average 10-15% reduction in carbon emissions. We have completed validation on telescopic handlers and wheel loaders, are considering equipping customer compact track loader (CTL) machines with mild hybrid systems starting in 2023, and demonstrated a CTL machine with the H24 mild hybrid powertrain at our Gunsan worksite in 2024. Plug-in full hybrid (PHEV) is a solution with a larger proportion of electrification after mild hybrid, which uses electricity as a power source in indoor and urban areas and a diesel engine or hybrid (diesel engine + electricity) power source in construction sites, which can improve fuel efficiency by more than 30% compared to existing products, and there are plans to test a prototype on customer equipment in 2024.

Demo of Telehandler to which Full Hybrid Powertrain is Applied



**Construction Equipment**

**Transition to Eco-friendly Power | Electric Excavators**

In 2019, we started developing an electric excavator to reduce greenhouse gas emissions and transition to eco-friendly construction machinery, and in August 2023, after about 40 months of development, we launched the world's fifth electric excavator, a 1.7-ton class electric excavator. The electric excavator (DX20ZE) introduced by HD Hyundai Infracore is equipped with an in-house developed battery pack and high-performance motor developed in-house, so it does not require replacement of engine-related consumables such as engine oil and engine oil filters, thus reducing maintenance costs and performing the same as internal combustion engine equipment of the same class. In addition, compared to existing diesel engine equipment, it has low vibration and noise, and no carbon or air pollutants are generated by the use of diesel fuel, thus improving the environmental impact of the work site, making it suitable for urban work. Following the small electric excavator, we plan to expand our electric excavator product lineup by launching 2-ton and 3-ton mini-excavators by 2026, and we will also electrify our 14-ton medium-sized excavator to expand the proportion of construction machinery with eco-friendly technology to secure growth momentum in the market. In 2021, we conducted a value analysis of a 3.5-ton diesel excavator and an electric excavator during their respective lifecycles<sup>1)</sup> using PwC's 'TIMM' methodology to measure the economic, social, and environmental value of introducing electric excavators, and calculated the improvement in benefits of electric excavators compared to diesel excavators, and found that each 3.5-ton electric excavator generates an impact value<sup>2)</sup> of approximately KRW 27.46 million.



1.7-ton electronic excavator (DX20ZE)

DX225LC-7X model with the latest fuel-efficient electro-hydraulic system



**Fuel Efficiency**

HD Hyundai Infracore is introducing an electronic integrated hydraulic system to all of its construction machinery products to improve fuel efficiency. The electronic integrated hydraulic system distributes optimal hydraulic pressure to each operating part as needed, minimizing unnecessary hydraulic operation while waiting for work, resulting in high productivity and reducing carbon emissions by achieving fuel efficiency savings of more than 15% compared to conventional products.

1) Assuming the use of the vehicle for 750 hours a year on average, for 5 years  
 2) Measuring the difference in economic, social and environmental benefits between a 3.5-ton electric excavator and a diesel excavator

### Eco-friendly Solution

As the movement to regulate carbon emissions from construction machinery equipment is in full swing in Europe, digital transformation through the introduction of smart construction site solutions is essential to reduce the negative environmental impacts of construction sites and products such as fine dust, deforestation, noise, CH4 (methane), and NOx (nitrogen oxides). HD Hyundai Infracore reduces negative environmental impacts by switching to advanced construction equipment equipped with advanced technology solutions such as autonomous technologies.

**Site Management** | XiteCloud is a comprehensive construction site management solution that utilizes a smart 3D drone survey and earthwork volume calculation platform to establish optimal construction plans. XiteCloud supports XiteCore, which provides comprehensive data, and XiteSafety, which protects the safety of workers. XiteCore is an open, integrated dashboard platform that can link, visualize, and control all the information needed to carry out construction projects. It provides a comprehensive view of site data and also enables the function of calculating carbon emission estimates, adding eco-friendly value. It also contributes to the prevention of safety accidents by identifying site conditions and preventing fires and theft through CCTV monitoring and all safety-related measurement information such as noise and vibration sensors installed on the site. XiteSafety is a solution introduced in response to the implementation of the Serious Accidents Punishment Act, and safety trends, and its antennas are installed on construction machinery equipment to recognize tags worn on workers' hard hats and prevent narrowing and collisions between equipment and workers. In addition, tags attached to hard hats are responsible for protecting the safety of workers on site by detecting the location and danger of workers.

**Concept-X2** | HD Hyundai Infracore aims to innovate the construction machinery industry and create sustainable customer value through digital transformation of its business to meet the growing market interest and demand for autonomous technologies in the construction machinery industry. In this regard, we are promoting the 'Concept-X' project, an innovative solution that leads the way in realizing the future of construction sites by converging and applying ICT (Information and Communications Technology) and AI (Artificial Intelligence) related technologies to construction sites. Concept-X is a future unmanned construction site comprehensive control solution that unmanned and automates all tasks on the construction site, from topographic surveying to construction machine operation. In 2019, we unveiled the world's first unmanned construction machine, and in September 2023, we introduced unmanned excavators and dozers with increased performance and productivity through 'Concept-X2'. Concept-X2's unmanned excavator is equipped with a tilt rotator bucket rather than a regular bucket, which can tilt 45 degrees and rotate 360 degrees, and has advanced algorithms to enable unmanned control. In particular, it generates the optimal excavation tra-

jectory based on AI, which improves work speed by 13%, reducing work time and reducing fuel consumption. In the future, Concept-X2 will be commercialized by combining elements from 'STAGE1', a stage where the equipment is controlled with a joystick, to 'STAGES5', a stage where the work status and malfunctions of all unmanned and manned equipment on the site can be monitored unattended, and the site can be managed in total, strengthening HD Hyundai Infracore's position as a leader in the global unmanned construction equipment market.

**Global DEVELON Day** | HD Hyundai Infracore held the 'Global DEVELON Day 2023' in September 2023 to showcase its differentiated technology and innovative image to customers around the world. We showcased the DEVELON brand and design philosophy, expanded a new product lineup, advanced smart technologies and solutions, and successfully demonstrated Concept-X2, a comprehensive control solution for autonomous construction sites of the future, to present DEVELON's future vision and strengthen business partnerships with customers.

2023 Global DEVELON Day

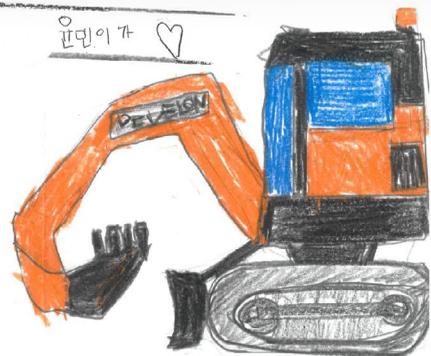


Demonstration of Concept-X2 on Global DEVELON Day



# SAFETY AND HEALTH

아빠님 일도 힘내시고  
안전하게 작업하세요.  
사랑해요.



## Safety and Health Management Organization



## Safety and Health Management System

### Safety and Health Management Organization

HD Hyundai Infracore is managing the safety and health management organization with the Safety Culture/Planning Team, Gunsan/Ansan EHS/Facility Team under the Chief Safety Officer. The safety and health management organization conducts safety management activities, safety culture activities, and safety education to eradicate accidents and internalize employees' safety awareness to strengthen the safety and health management system. The BOD and the Safety and Health Management Committee make final deliberations and resolutions on safety and health issues in order to manage safety and health as a top priority. The CEO makes decisions on key issues for the implementation of safety and health policies, and key issues are reported to the BOD, the highest decision-making body, and the Safety and Health Management Committee, for deci-

### Operation of Safety and Health Governance

Classification	BOD	Safety and Health Management Committee
Frequency	Annually	Half-yearly
Agenda	Approval for safety and health plan	Checking and reporting of fulfillment of safety and health obligation by the management
Led by	BOD	CEO, senior outside directors
Major achievements	Reporting on 2024 plan (Dec. 7, 2023)	Feb. 22, 2023 (3 times) Jul. 10, 2023 (4 times) Jan. 30, 2024 (5 times)

sion-making.

### Safety and Health Policy

We have established and operate a safety and health policy to prevent industrial accidents and create a safe working environment based on HD Hyundai's core value of "Safety for All". The safety and health policy is applied to all worksites, supply chains, and sales channels and covers all stakeholders, including employees and suppliers. In addition, we have established five EHS management strategies and shared them both domestically and internationally to induce company-wide participation in environmental safety management. [Safety and Health Policy](#)

### Health and Safety Management System (ISO 45001)

For the purpose of preventing industrial accidents and creating a pleasant working environment, we have established and revised internal EHS standards in accordance with the Safety and Health Management System

(ISO 45001) to fulfill our responsibilities for the health and safety of workers, and more than 70% of our domestic and overseas plants have obtained ISO 45001 certification, publicly expressing our commitment to safety and health management. In addition, as various safety and health-related laws and government guidelines, such as the Serious Accidents Punishment Act, have been strengthened, we have established procedures for identifying and improving risk factors to comply with laws and regulations and manage risks, and we are fulfilling our obligations to ensure safety and health by conducting safety inspections on hazardous and dangerous machinery and equipment and maintaining various safety systems. In 2024, we plan to improve the level of safety and health by applying standard EHS to all overseas production sites and obtain ISO 45001 certification for all domestic and overseas production sites.

## 5 Strategic Tasks for EHS Management

Global Leading Green Company				
Operation of the EHS management system	Shared growth with suppliers	Response to climate change	Expansion of eco-friendly products	Enhancement of communication with society
<ul style="list-style-type: none"> <li>Evaluation on advance EHS management indicators</li> <li>Certification on EHS management system at overseas sites</li> <li>Enhancement of EHS competencies</li> </ul>	<ul style="list-style-type: none"> <li>Achievement of shared growth in EHS with suppliers and inhouse contractors</li> </ul>	<ul style="list-style-type: none"> <li>Efforts to reduce GHG emissions</li> <li>Expansion of a culture of GHG reduction</li> </ul>	<ul style="list-style-type: none"> <li>Continuous development of eco-friendly products</li> <li>Expansion of the production of eco-friendly products</li> </ul>	<ul style="list-style-type: none"> <li>Disclosure of environmental management information</li> <li>Reinforcement of social contribution activities related to EHS</li> </ul>

**Integrated Safety and Health Management System**

HD Hyundai Infracore utilizes the integrated safety and health management system 'HI-EHS' to build and operate a database covering all areas of EHS, including EHS laws and standards, risk assessment, chemicals, laboratory safety, fire facilities, employee health checkups, occupational diseases, and work environment measurement. In 2023, we upgraded the HI-EHS system to build a more accurate and rapid data management system and improve the work efficiency of users, and through this, we enhanced the scope and level of EHS management at our workplaces by digitizing environmental management at Boryeong PG, inputting safety inspection and improvement results using mobile phones, and searching for the latest MSDS on site.

**Safety and Health Performance Monitoring**

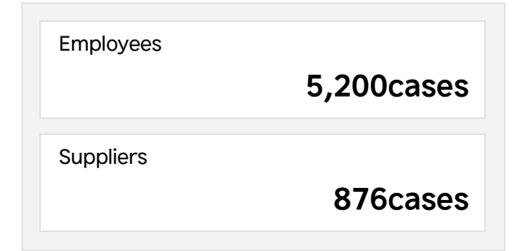
HD Hyundai Infracore analyzes safety and health performance annually and develops company-wide EHS management evaluation indicators and applies them to its plants in Korea and China. In addition, the company has strengthened its safety and health performance monitoring system by establishing targets for key safety and health performance and managing them as key performance indicators (KPIs) for management and executives in relevant departments. We will continue to strengthen the necessary capabilities based on clear EHS standards and systems linked to the value chain, including procurement and production, and enhance execution by integrating EHS management throughout the company's operations.

**Risk Assessment Process**

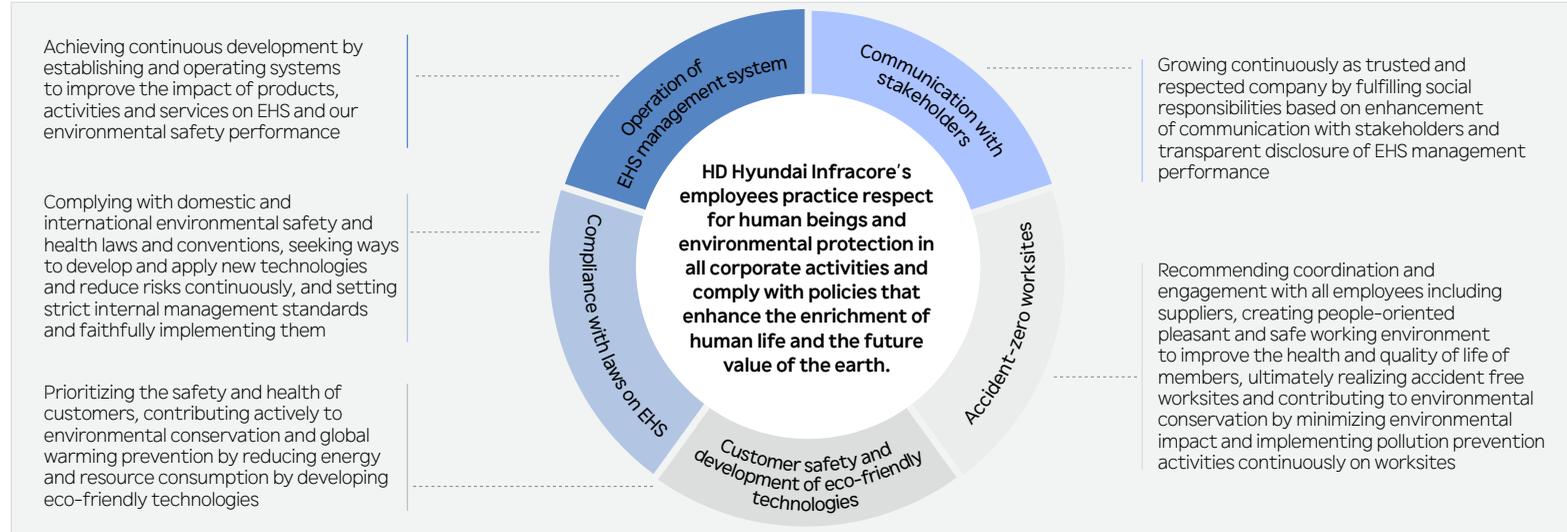
HD Hyundai Infracore focuses on the 'Risk Factor Self-Management' system, in which not only site managers but also general employees find potential risk factors in work processes, analyze the risk level, and improve them. Regular risk assessments are conducted at the beginning of each year in accordance with the risk assessment guidelines for the entire process, risk factor analysis, and completion of improvement activities. In addition, risk assessments are conducted from time to time in accordance with the regular assessment method for the installation, relocation, change, dismantling, and expansion of workplace machinery and equipment, process changes, and EHS accidents. In 2023, we identified and improved 5,200 potential risk factors,

supported the EHS technology and risk assessment certification system for internal suppliers, and expanded and strengthened training and evaluation to involve all employees in regular risk assessment.

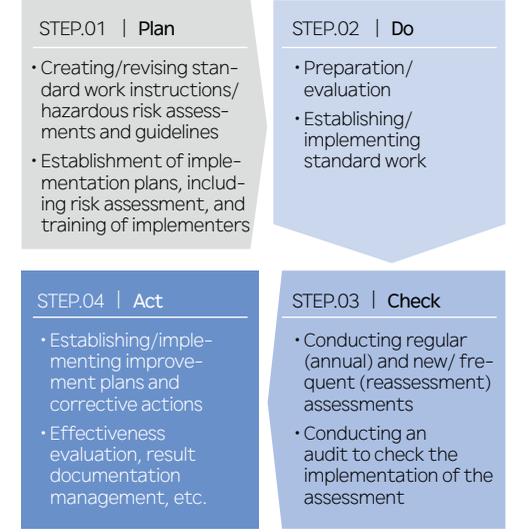
**The number of potential risks identified**



**Environment, Health and Safety (EHS) Policy**



**Risk Assessment Process**



## Worksite Safety

### Prevention-oriented Worksite Safety Management

HD Hyundai Infracore conducts safety management activities to prevent and manage major disasters and safety accidents in advance. Through twice-yearly compliance evaluations, we self-evaluate and reward safety and health improvement activities such as compliance with the Occupational Safety and Health Act and risk factor improvement activities. In addition, we strengthen 'risk factor self-management activities' to help workers recognize and share unsafe behaviors and risk factors, and conduct 'EHS Patrol' at least once a month under the supervision of the EHS executive to identify and improve hazards that may occur in the workplace. To achieve accident-free workplaces in the future, we will establish a system of proactive prevention activities, internalize risk factor self-management activities, and activate monitoring and evaluation of compliance with laws and regulations as mid- to long-term goals, further improve safety devices to prevent major accidents, and make

our best efforts to build a safety culture that involves labor and suppliers.

**Fire Prevention and Inspection** | In order to prevent fires related to electricity, overheating, and dust, we regularly inspect and supplement in-house firefighting facilities, establish a fire monitoring and response system through the operation of a 24-hour disaster prevention center, and install automatic fire extinguishing facilities at five e-PP processes to prevent fires. In 2023, we conducted a special diagnosis for fire and major disaster prevention and achieved an improvement rate of 99.7%. In addition, we conducted a joint fire drill with the civil, government, military, and police at the GBC (Global Business Center) of our Incheon worksite to improve our ability to respond quickly in the event of a major crisis through cooperation with related organizations.

**Safety Training for Employees** | With the goal of securing employees' safety awareness and establishing a safety culture, we complete statutory

safety training every year, and in 2023, 2,195 employees participated in safety and health training. Since 2015, we have also been conducting CPR training every year, and we are gradually expanding the scope of CPR training to include suppliers in 2022 and employees and suppliers' family members who visit the factory in 2024.

**Process Safety Management** | HD Hyundai Infracore continuously conducts systematic process and facility management through the Process Safety Management (PSM) system, and systematically prevents major industrial accidents by identifying and eliminating potential accident risk factors in advance. In 2022, we conducted regular PSM audits for our Incheon and Gunsan plants, which are conducted every four years, and as a result of the audit, the Gunsan worksite achieved an S grade.

**Response to Emergency Situation** | In preparation for unexpected emergencies, we operate the Integrated Control Center to operate an emergency

response system, disseminate disaster and emergency situations in real time, and secure the safety of our worksites and surrounding areas. In response to natural disasters such as typhoons and earthquakes, as well as emergencies such as fires and oil leaks that may occur depending on the nature of the business, the Integrated Control Center has established manuals for each scenario, and plans and conducts response drills every year to improve the ability of employees to respond quickly. In 2023, we supplemented the contractor management regulations and emergency response scenarios to prevent major disasters, and conducted a total of two emergency response drills for internal worksites and business suppliers and four emergency response drills for GBC at the Incheon worksite.

**Safety Management Based on Cross-checking among Regions** | Due to the different levels of applicable laws and regulations at the Incheon and Gunsan worksites, we conducted mutual evaluation through cross-checks of the safety and health management organizations at each worksite to level up and strengthen the safety and health management level at each worksite. Based on the evaluation, we improved the identified risk factors and conducted supplementary activities such as training for the Incheon plant's safety and health team and delivery of improvement tasks, resulting in an increase in the Gunsan plant's safety and health evaluation score. In 2024, we plan to continue to conduct on-site manager training and safety supporter activities to improve the level of on-site safety management and minimize the gap in safety and health between regions.

Recognizing workplaces for excellence in labor and safety culture



CPR training for employees



## Health Management Program

**Occupational Illness Management** | In order to prevent noise-induced hearing loss and musculoskeletal diseases, which are the most common occupational diseases among employees, we regularly hold the Noise Process Improvement TF meeting (half-yearly) and the Musculoskeletal Disease Improvement Executive Committee (monthly), which are composed of EHS, labor unions, site managers, and production managers, and prepare improvement measures. In addition, we conduct various activities to monitor the safety and health of workers, such as regular visits to the site by medical staff, and switch jobs by grade for those who are subject to special examinations and observers.

**Health of Employees** | In helping its employees manage their health, HD Hyundai Infracore is conducting preventive management activities for three diseases (dyslipidemia, liver disease, and hypertension) that occur mainly among employees. For major activities, we provide doctor consultations, health newsletters, health campaigns, and low-sodium diets and hold various health-related events such as a blood pressure measurement challenge and walking challenge in line with the trend of "Healthy Pleasure". In December 2023, we opened a new healthcare zone at the Gusan worksite, introducing medical equipment that can measure blood pressure, stress meters, the cardiovascular system, and more, and actively encourage not only our employees but also employees of our suppliers to check their health status whenever they want, so that they can take an interest in their own health and manage their health.

**Mental Health and Job Stress Management Program for Employees** | We operate the HUGIN program, a professional stress management program that diagnoses the mental health status of employees through stress surveys and focuses on high-risk employees. The HUGIN program specializes in psychological counseling and Suppliers with external professional organizations to provide free professional counseling for all areas requiring psychological counseling, including work, personal concerns, home, children, parenting, and job. We also provide education and stress assessments to protect the health of emotional workers, and professional training for the EAP (Employee Assistance Program), and as of 2023, all site managers have completed the peer counselor course.

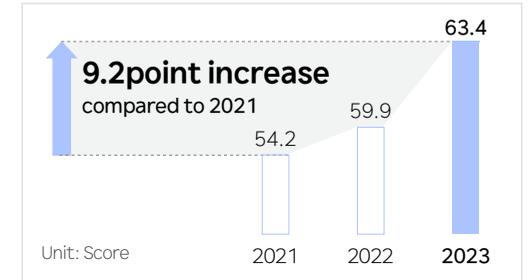


## Safety Culture

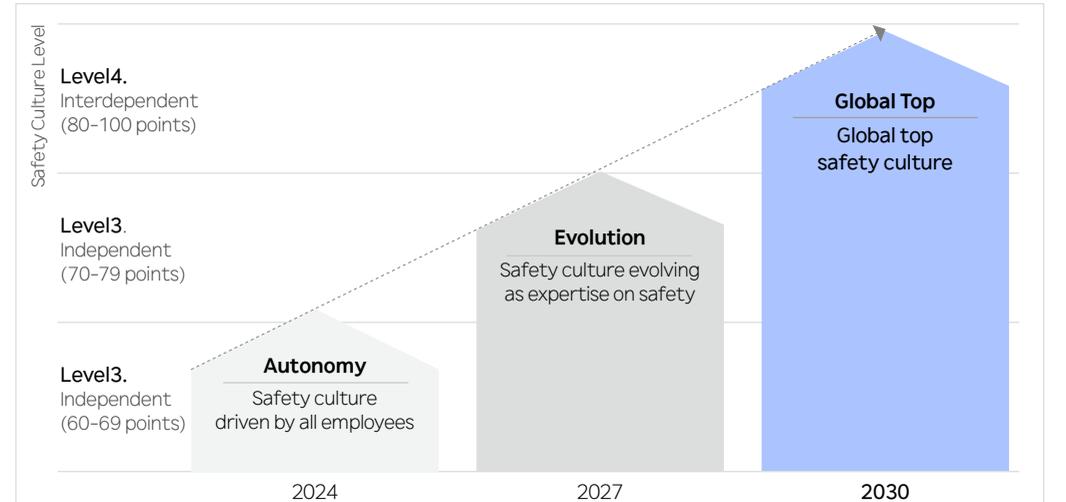
**Safety Culture Establishment Project** | The safety culture building project has been underway since 2021 to create a flawless safety workplace by forming a habit and atmosphere where employees actively practice safety behaviors. We are conducting activities such as safety culture training, sharing safety best practices, and safety culture video contests, while objectively diagnosing and monitoring the level of safety consciousness through professional consulting to derive effective improvement tasks. In addition, safety consultants strengthened leaders' ability to spread safety values through 1:1 coaching with executives and conducted safety leadership mind-set (internalization) training. As a result, the level of safety consciousness diagnosis increased

by 9.2 points from 54.2 points in 2021 to 63.4 points this year, confirming that employees' safety consciousness has matured. HD Hyundai Infracore will continue its efforts to establish a global top safety culture by establishing a roadmap until 2030.

### Diagnosis of Safety Awareness



### Roadmap for Improving Safety Culture



**Safety Day** | Every April, a Safety Day event is held to strengthen employee safety awareness and establish a safety culture. In 2023, the 10th Safety Day was held under the theme of 'Safety for All, We are 10' to spread 'Safety for All', one of HD Hyundai's core values, and to commemorate the 10th anniversary of the event. We identified excellent safety and health activities, shared best practices, raised awareness of accident prevention, and rewarded those who contributed to safety and health activities in the field.

**Outcome of Safety Culture** | HD Hyundai Infracore was awarded the Presidential Citation at the Safety Culture Award Ceremony in December 2023 as a result of its efforts to spread safety culture by supporting various safety culture motivation activities for voluntary awareness change since establishing the first joint labor-management safety culture organization in Korea in 2021.



10th Safety Day Event

**Safety Culture Event**

<b>Building and applying safety culture application</b>	Encouraging safety culture by developing application on safety culture activity participation · Safety leader: Looking back on my safety value behavior · Workers: Looking back on safety behavior of me and my colleagues, looking back on safety awareness of leaders
<b>Safety dialogue video contest</b>	Preventing hazardous situations in the field by role-playing safety conversations with coworkers, creating an atmosphere where coworkers' safety is a priority in hazardous situations, and building safety-based trust among coworkers.
<b>CPR competition</b>	Awarding prize money to those with high scores based on scores generated by a program that automatically measures the speed and depth of CPR compressions on a mannequin
<b>Support for Safety-related Professional Certificate</b>	Support for all employees to take professional occupational safety certification exams and providing bonus for obtaining certifications
<b>Selecting Excellent Position, Leaders and Workers Related to Safety</b>	Selecting and rewarding outstanding positions, leaders, and workers who participated in voluntary safety culture establishment activities and behavior-based safety (BBS) excellence
<b>Publication of Safety Culture Newsletter</b>	Conducting monthly safety culture survey and safety culture quiz event in order to encourage employee participation in safety culture activities and awarding bonus to employees who showed active participation
<b>Let's Praise Safety Program</b>	Receiving recommendation for employees who practice 10 safety actions promised on each job position and leading by example in fostering safety culture and awarding bonus



Safety Culture People Award



**Safety Culture Newsletter**



Safety Culture Application

## Supply Chain Safety and Health

**EHS Capability Assessment on External Suppliers** | We conduct EHS competency assessment of our suppliers in order to prevent industrial accidents and more systematic supply chain ESG management. New suppliers are subjected to an OSA (On Site Assessment) evaluation through on-site inspections, and only if the evaluation results meet certain standards can they be registered as suppliers. If any EHS, fire, or environmental risks are identified during the on-site diagnosis process, we proactively check them and support improvement activities. We continuously monitor the EHS capabilities of all suppliers by conducting written ESG assessments including the level of EHS capabilities every two years for existing suppliers. As a result of the assessment, suppliers with high importance and risk are separately selected to receive EHS consulting through collaboration with external specialized organizations or technical support through our own experts, and mitigation measures to improve risk factors are implemented annually, as well as related training. In 2023, we provided training for business owners on building safety and health systems, smart factory training for suppliers, and FTA origin training for suppliers.

**Safety Management Activities for Outsourced Contractors** | We imple-

mented various safety management activities to prevent major accidents at subcontractors. CSO personally conducted safety patrols once a week at the company's outsourced construction sites to identify risk factors and implement improvement measures to prevent disasters. To strengthen safety management of outsourced work, we established safety inspection management standards for five types of construction equipment, developed inspection checklists, and conducted twice-yearly training for construction personnel. We have also strengthened the process of checking the health status of subcontractors' workers to prevent accidents that may occur during work by strengthening the standards for allowing people with high blood pressure to work. In addition, we have strengthened our own penalty standards with severe penalties for violations of safety rules in case of serious accidents, and report the safety management performance of subcontracted work to the management every month.

**Safety Management Activities for Internal Suppliers** | For internal suppliers, we provided technical support for risk assessment operations and technical support for inspection and management of firefighting facilities. In 2024, we implemented a supplier reward system to select and reward suppliers with excellent ratings and workers with excellent safety and health activities through evaluation checks to encourage suppliers' disaster prevention activities and raise safety awareness.

**Internal Supplier Council** | HD Hyundai Infracore operates a monthly council with 32 internal suppliers to raise safety awareness and resolve safety and health grievances among representatives of internal suppliers. In addition to sharing safety and health best practices and major activities of each supplier, the council also listens to and reflects the opinions of suppliers regarding safety and health to further strengthen the safety and health system with them.

**Safety and Health Consulting for Suppliers** | In order to practice win-win safety management with our suppliers, we promoted the Win-Win Cooperation Project, which is part of the technical support project, and the Matching Support Consulting, which supports consulting for safety and health improvement. The purpose is to establish a safety and health management system and improve the level of safety and health by providing consulting and safety training on risk assessment techniques, 3 types of accidents, and 8 risk factors, and HD Hyundai Infracore directly supports 50% of the cost. In 2023, we conducted consulting for 5 suppliers, and in 2024, we plan to expand matching support consulting for 8 suppliers. In recognition of our support for suppliers, we were selected as an outstanding company at the '1st Large and Small Business Safety and Health Win-Win Cooperation Project' held in March 2024, organized by the Korea Occupational Safety and Health Agency.

Safety Inspection on Supplier's Production Process



Winning the Excellent Company Award at the 1st Large and Small Business Safety and Health Win-Win Cooperation Project



### 2023 Achievement of Supply Chain Safety and Health Activities

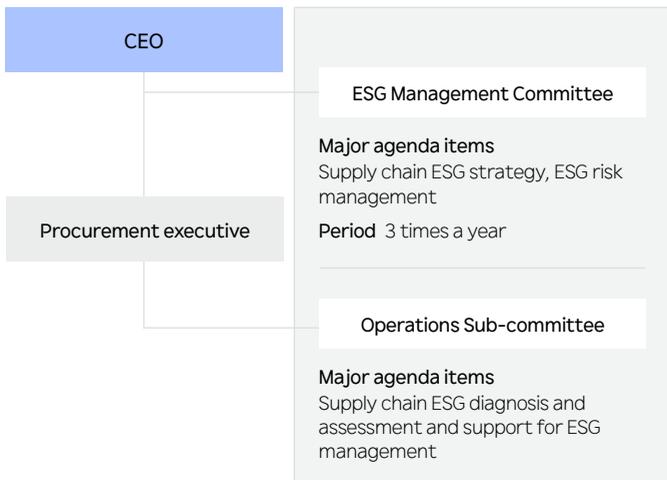
LTIR of suppliers **0.38**

No. of participants in safety training from suppliers **832 persons**

No. of suppliers which received support for safety and health **26 suppliers**



# SUPPLY CHAIN



## Supply Chain Management System and Policies

**Supply Chain ESG Management Governance and Target Management** | HD Hyundai Infracore has established a decision-making system to lay the foundation for responding to supply chain ESG issues and implement them, and holds regular meetings every year to discuss supply chain ESG strategies, supply chain ESG-related risks, and responses to them. In addition, the implementation of the 2023 supply chain ESG diagnosis has been set as a key performance indicator (KPI) for management and linked to compensation, thereby monitoring practical supply chain ESG management activities.

**Supply Chain ESG Management Policy** | HD Hyundai Infracore has established and operates a specific Supply Chain ESG Management Policy to implement the supply chain code of conduct. The Supply Chain ESG Management Policy is based on global standards such as the UN Guiding Principles on Business and Human Rights (UNGPs), OECD Guidelines for Multinational Enterprises, and ILO Core Conventions, and covers the five areas defined by the Supplier Code of Conduct: ethics, environment, labor and human rights, safety and health, and management system. This policy applies to all suppliers and sub-suppliers of suppliers who have entered into contracts with HD Hyundai Infracore for the supply of products and services or other transactions. In addition, to promote suppliers' participation in shared growth activities, we reflect their participation and performance in shared growth activities in the comprehensive evaluation of suppliers.

[Supply Chain ESG Management Policy](#)

**Code of Conduct for Suppliers** | We have established the Code of Conduct for suppliers and disclosed it on our website in order to identify potential ESG risks in the supply chain and real-

ize a sustainable supply chain. The Code of Conduct for suppliers is a basic guideline common to all suppliers and consists of areas covering sustainability management, including labor and human rights, safety and health, environment, ethics and fair trade, and management system. In 2023, we updated and reorganized the detailed items in each area and added some new items to improve and supplement them.

[Code of Conduct for Suppliers](#)

**Green Purchasing Policy** | We have established a green purchasing policy that prioritizes the purchase of eco-friendly products for all materials purchased for product production in order to realize environmentally friendly management. Eco-friendly products are products certified by environmental labels, low-carbon products, and excellent recycled products, and we are continuously making efforts to replace existing materials with eco-friendly products to expand green purchasing. In addition to quality and price, we prioritize eco-friendly products with environmental performance and give extra points for eco-friendly products when bidding for suppliers to strengthen the eco-friendly supply chain. [Green Purchasing Policy](#)

## Supply Chain ESG Management Policy

Sustainable procurement	Supplier ESG assessment System	Responsibilities of suppliers and management area	Communication
Compliance with ESG management standards including ethical standards	Supply chain ESG management covering document evaluation-due diligence-support for improvement	Strengthening the demand for implementing code of conduct for suppliers and ESG management policy of HD Hyundai Infracore	Commitment to establishing trust with stakeholders based on supply chain ESG information disclosure and regular communication

## Supply Chain Risk Management

HD Hyundai Infracore conducts an annual 'Supply Chain ESG Assessment' to evaluate and manage ESG factors that are potential risks and build a sustainable supply chain. We also establish improvement measures for suppliers that need improvement as a result of the assessment and check the implementation status.

**Supply Chain ESG Assessment** | In order to identify and respond to potential ESG risks related to the supply chain, we established ESG supplier evaluation indicators related to five categories, including labor and human rights, safety and health, environment, ethics, and management system, based on RBA and related laws and regulations, and conducted self-assessments of suppliers. As a result of the self-assessment, 141 suppliers, including core suppliers, participated in the self-assessment, which was conducted by responding to the indicators online or submitting supporting documents. The self-assessment confirmed the need to improve ESG capabilities in the management system, and compared to the results of the industry-wide assessment, we scored slightly

lower in the areas of labor, human rights, and safety and health. Twelve of the suppliers were identified as requiring attention, and 27 suppliers were finally selected to conduct on-site inspections based on the evaluation score, purchase amount, and reliance on HD Hyundai Infracore. In order to verify the actual implementation of each ESG area and determine whether the level of activity is appropriate, documents and on-site inspections were conducted, and a third-party external diagnostic and due diligence expert participated in the on-site inspection to ensure the objectivity and fairness of the assessment. As a result of the on-site inspection, improvement tasks were identified in all areas, and action plans were established for each task centered on key improvement tasks, and the progress of improvement is continuously monitored. For suppliers in need of improvement support, we provided ESG carbon neutrality training and SME technology protection training, and a total of 176 employees of suppliers completed the training. For outstanding suppliers, we prioritize financial support (facility investment funding, operation of the Shared Growth Fund, credit guarantee and technical support fund) and management support

(leading supplier activities, participation in industrial innovation movements) as part of shared growth activities to help suppliers upgrade their ESG.

**Supply Chain ESG Management Roadmap** | In 2023, we achieved our goal by conducting 100% self-assessment of 141 supplier self-assessment targets, and from 2024, we plan to expand self-assessment and conduct supply chain ESG assessment to suppliers accounting for the top 95% of our total purchases. We also set supply chain management targets based on four strategic directions, including procurement management principles and due diligence, supplier communication and education, supplier ESG-related performance management, and conflict and responsible minerals management, and will implement them sequentially until 2026.

**Conflict Minerals** | We are committed to ensuring that our supply chain does not contain conflict minerals, which have been linked to social problems such as human rights abuses, environmental degradation,

and the flow of funds to armed groups in conflict zones to fulfill our social responsibilities and comply with the law throughout our supply chain. To this end, we have reflected the prohibition on the use of conflict minerals in our Code of Conduct for Suppliers and recommend that they comply with it, and we share our policy on conflict minerals with our suppliers to ensure that they are aware of the regulations on conflict minerals. In addition, we have made it possible for suppliers to proactively check and take measures against the inclusion of conflict minerals through our procurement system, and we regularly monitor the inclusion of conflict minerals in the raw materials we purchase from all suppliers at least once a year.

### Countries Subject to Conflict Minerals



## Supply Chain ESG Assessment Process

Improving awareness of suppliers	ESG self-assessment	Due diligence and verification of self-assessment results	Checking and evaluating risk factors in the supply chain	Establishment of risk improvement plan and follow-up actions
<ul style="list-style-type: none"> <li>Receiving consent on compliance with code of conduct for suppliers</li> <li>Incorporating ESG items in the transaction agreement with suppliers</li> <li>Support for ESG and supply chain management training</li> </ul>	<ul style="list-style-type: none"> <li>Establishing ESG assessment indicators for suppliers</li> <li>Selecting suppliers subject to assessment</li> <li>Conducting ESG self-assessment on key suppliers</li> </ul>	<ul style="list-style-type: none"> <li>On-site inspection on the information submitted by suppliers</li> <li>Sharing best practices on ESG management and conducting training on awareness improvement</li> </ul>	<ul style="list-style-type: none"> <li>Identifying improvement tasks based on the results of on-site inspection</li> </ul>	<ul style="list-style-type: none"> <li>Checking issues related to human rights, labor and corporate ethics of some suppliers</li> <li>Requesting corrective actions</li> </ul>

## Supply Chain Management Process Roadmap

	Short-term   ~2024	Mid-term   ~2025	Long-term   ~2026
<b>Procurement management principles and procedures</b>	Establishment of procurement management principles	Global expansion of procurement management principles	Establishment of the procurement procedure and incorporation of it into procurement process
<b>Communication with suppliers and training</b>	Establishment of ESG training system (by year)	Conducting quarterly ESG training	Benchmarking and development of support program
<b>Supplier ESG performance management</b>	Calculation of the ratio of suppliers for which ESG was assessed	Sampling inspection on global worksites	Conducting assessment with coverage of 95%
<b>Conflict/responsible minerals management</b>	Diagnosis of conflict/responsible minerals status	Development of CMRT for second tier or higher suppliers	CMRT/EMRT Disclosure

## Communication with Supply Chain

**Integrated Cooperation Council** | We operate the 'HD Hyundai Infracore Integrated Cooperation Council' for efficient and active communication with suppliers. Every year, we hold general meetings and meetings with suppliers to share business results and management plans, and discuss win-win ways to strengthen suppliers' competitiveness and expand their business.

### Strengthening Supplier Communication Channels

| We operate the Shared Growth Hotline to actively listen to and resolve the grievances of our suppliers, and we receive supplier grievance opinions through the Council to handle supplier grievances and resolve 100% of them every year. In addition, we publish a regular newsletter that provides useful information to our suppliers promptly, including our various shared growth programs, external support programs, various training programs, and best practices for shared growth activities.

[Hotline for Shared Growth](#)

**Counseling on Unfair Transactions** | If you suspect any unfair trade or corruption-related matters in your transactions with us, and if you have suffered any damage as a result, you can report it through the HD Hyundai Ethical Management website and process it, and we are making efforts to establish a fair subcontracting culture by operating the 'Unfair Trade Consultation System for Suppliers'. The Ethics Management Department takes appropriate measures after verifying the facts of unfair acts reported through the unfair trade counseling system, and the identity of the informant and the contents of the report are kept strictly confidential (anonymous reporting is possible) so that the informant does not suffer any disadvantages as a result of the report.

**CEO's Visit to Suppliers** | The CEO of HD Hyundai Infracore visits major suppliers to listen to their opinions and seek ways for win-win cooperation. In 2023, he visited four companies, including Tong Yang Piston, HWA YOUNG, Sunjin Precision, and Seoyon Topmetal, and will continue to strengthen communication through visits to various suppliers.

2023 HD Hyundai Infracore Integrated Cooperation Council Workshop



## Supply Chain ESG Support

### Establishment of Smart Factory MES to Strengthen Competitiveness of Suppliers

| In 2023, HD Hyundai Infracore supported 11 suppliers to build a smart factory MES (Manufacturing Execution System). The Smart Factory MES implementation project is a win-win management activity that enhances the sustainable competitiveness of both prime and subcontractors through digitization and productivity improvement at the manufacturing sites of suppliers, and realizes efficient and organic business processes through system linkage with HiSRM, HD Hyundai Infracore's integrated system for suppliers. We have expanded the scope of support from the existing LS (Leading Supplier) certified suppliers to 80 members of the association, and will continue to expand the scope by supporting MES implementation for non-members of the association from 2026. In addition, we plan to continue supporting suppliers to improve their Q-D-C (Quality, Delivery, Cost) competitiveness.

**Supply Chain ESG Improvement Support** | In 2023, HD Hyundai Infracore launched the 'Supply Chain ESG Management Support Project' under the leadership of the CEO to strengthen the ESG capabilities of suppliers in order to build a sustainable supply chain. We conducted online ESG management diagnosis and improvement guides, online and offline training support for executives and practitioners, on-site ESG management diagnosis and result analysis, and improvement consulting. We plan to expand ESG management support in the future and continue various shared growth activities such as Supplier Academy training and financial support programs to strengthen the competitiveness of suppliers.

**Industrial Innovation Campaign** | The Industrial Innovation Campaign is a shared growth program that dispatches consultants to first-tier and second-tier suppliers to provide practical help to suppliers, including production innovation and smart factory construction, and has helped more than 100 suppliers improve productivity and reduce costs in the 10 years since 2013.

2023 Supplier MES Establishment Briefing



1) MES: A system that improves production operation efficiency by integrating and managing real-time data such as production plans, material flow, and quality information on a single platform.

## Shared Growth Activities

HD Hyundai Infracore provides programs to strengthen suppliers' competitiveness, improve suppliers' ESG capabilities, and provide financial support for shared growth as a global company with suppliers through the establishment of a 'virtuous circle partnership' system, and operates a shared growth communication channel to strengthen communication.

[Introduction of Shared Growth Activities](#)

**Participation in Benefit Sharing System** | The benefit sharing system is an agreement that allows large and small suppliers to work together to improve their ability to supply high-quality products in a timely manner and distribute the effects generated accordingly. Through the benefit sharing system, suppliers propose improvements and innovations related to the development of new models, localization of parts, quality improvement, and design changes, and HD Hyundai Infracore reflects the proposals and shares the results with suppliers to promote win-win cooperation. In 2023, 23 of our suppliers' proposals were adopted and selected for performance sharing, and we plan to expand the performance sharing system to our first-tier and second-tier suppliers to strengthen the competitiveness of our suppliers and the company and establish a culture of shared growth.

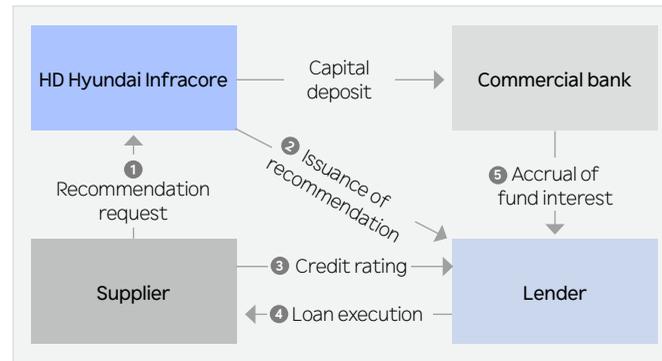
### Philosophy of Shared Growth



**Shared Growth Fund** | HD Hyundai Infracore supports the loan interest of SMEs that do business with the company through the Shared Growth Fund. In collaboration with financial institutions, we have raised and managed a total of KRW 78.5 billion in funds, enabling our suppliers to reduce their financing costs, smoothly finance their operations, and stably operate their supply chains.

**Contribution to Supply Chain ESG Shared Growth Fund by the HD Hyundai Construction Equipment Sector** | In February 2024, HD Hyundai Infracore, HD Hyundai XiteSolution, and HD Hyundai Construction Equipment signed an agreement with financial institutions to establish the Supply Chain ESG Shared Growth Fund. It is a KRW 20 billion fund that aims to provide substantial funding for suppliers participating in supply chain ESG management projects to strengthen their ESG management. The fund is expected to provide practical help to suppliers by helping them save interest by borrowing at low interest rates. Financial institutions also provide free support for ESG consulting and on-site inspections by external experts to strengthen suppliers' ESG response capabilities.

### Fund Management Method



**Price Adjustment System for Supply Payment** | We have implemented a Price Adjustment System for Supply Payment to share the burden of rising raw material costs with our supplier companies and contribute to mutually beneficial cooperation. This system adjusts the payment for supplied goods in response to significant changes in the prices of key raw materials. If the price of the main raw materials for the goods supplied by the subcontracting company to the contracting company fluctuates beyond a certain level, the payment is adjusted accordingly. In 2023, we successfully established and expanded the application of this system with 119 supplier companies, achieving excellent results and earning a commendation from the Minister of SMEs and Startups.

**Financial Support for Suppliers** | We provide financial support to help our suppliers in difficulty and secure their liquidity in four ways: direct support, indirect support, mixed support, and special support.

### Financial Support by Type

Classification	Support details	Amount
Direct support	Facility investment support for forming tools	KRW 40.2 billion
Indirect support	Network loan, family corporate loan	KRW 30 billion
Hybrid support	Formation of shared growth fund	KRW 43.5 billion
Special support	Industrial innovation campaign, win-win supporters, technology guarantee win-win cooperation	KRW 730 million



# GOVERNANCE

## BOD

**Composition of BOD** | HD Hyundai Infracore's BOD is composed of five members, including two inside directors who are specialized business executives and three outside directors who are experts in economics, law, and accounting, and the proportion of outside directors is more than a majority to prevent risks related to conflicts of interest. For the inside directors, the shareholders' meeting appoints candidates recommended by the BOD, and for the outside directors, the shareholders' meeting appoints candidates who have been comprehensively verified by the Outside Director Nominating Committee for their qualifications and interests in the company.

### Expertise of BOD

HD Hyundai Infracore organizes outside directors with specialized knowledge and experience in management, law, policy, and accounting to secure the expertise and accountability of the BOD. In March 2023, a legal expert was appointed to strengthen compliance management and expand social responsibility, and in March 2024, an economic official was appointed as an outside director to actively respond to uncertain internal and external business activities.

### Diversity of BOD

When selecting candidates for the BOD, we do not discriminate against factors such as nationality, age, gender, background, race, religion, and ethnicity, and appoint them with equal qualifications. In principle, outside directors are composed of individuals with rich experience and expertise in various fields such as management, economics, law, and accounting, so that diverse opinions can be widely reflected in decision-making. In March 2023, we appointed a female outside director, Kang Sun-min, to further strengthen the diversity of the BOD.

### Independence and Transparency of BOD

In order to ensure the independence of the BOD and enhance management transparency, a separate and independent Outside Director Nominating Committee comprehensively examines the independence, expertise, and diversity of candidates for outside directors to verify their suitability. In addition, various information on candidates is provided to shareholders to ensure fairness and independence, and the BOD is composed of at least a majority of outside directors to ensure that the BOD can function independently of management and controlling shareholders.

## Board Skill and Diversity Matrix

Base date: Mar. 31, 2024

Name	Inside Director		Outside Director		
	Cho Young-cheul	Oh Seung-hyun	Seong Yoon-mo	Chun Myeong-ho	Kang Sun-min
<b>Gender</b>			Male		Female
<b>Major roles</b>	<ul style="list-style-type: none"> <li>General corporate management</li> <li>Chairperson of the BOD</li> <li>ESG Committee</li> </ul>	<ul style="list-style-type: none"> <li>General corporate management</li> <li>General management of construction equipment business division/engine business division</li> </ul>	<ul style="list-style-type: none"> <li>Audit Committee</li> <li>Internal Transaction Committee</li> <li>Outside Director Nominating Committee</li> <li>ESG Committee</li> <li>Compensation Committee</li> </ul>	<ul style="list-style-type: none"> <li>Audit Committee</li> <li>Internal Transaction Committee</li> <li>Outside Director Nominating Committee</li> <li>ESG Committee</li> <li>Compensation Committee</li> </ul>	<ul style="list-style-type: none"> <li>Audit Committee</li> <li>Internal Transaction Committee</li> <li>Outside Director Nominating Committee</li> <li>ESG Committee</li> <li>Compensation Committee</li> </ul>
<b>Major career</b>	(Present) CEO of HD Hyundai Infracore (Present) CEO of HD Hyundai XiteSolution	(Present) CEO of HD Hyundai Infracore (Present) Chairman of Korea Construction Equipment Manufacturers Association	(Present) Endowed chair professor, Department of Industrial Security, Chung Ang University (Present) Outside director, Hyosung (Former) 4th Ministry of Trade, Industry and Energy (Former) Chairperson of Tech University of Korea (Former) 25th commissioner of Korea Intellectual Property Office	(Present) Lawyer at Kim and Chang law firm (Present) Law interpretation review committee member, Ministry of Government Legislation (Former) Judge, Southern District, Seoul District Court	(Present) Professor, School of Business Administration, Chung Ang University (Present) Member, Financial Accounting Standards Board, Financial Services Commission (Present) Outside director, NongHyup Property & Casualty Insurance (Former) Chair, Private University Accounting Committee, Korean Accounting Association
<b>Appointment date</b>	Sep. 10, 2021	Mar. 21, 2022	Mar. 25, 2024	Mar. 27, 2023	Mar. 27, 2023
<b>Term</b>	Mar. 27, 2025	Mar. 25, 2026	Mar. 25, 2027	Mar. 27, 2026	Mar. 27, 2025
	<b>Expertise</b>				
<b>Management</b>	●	●	●		●
<b>Finance</b>	●				●
<b>Technology</b>		●			
<b>Industry</b>	●	●	●		
<b>ESG</b>	●	●	●	●	●
<b>Law</b>				●	
<b>Policy</b>			●	●	
<b>Accounting</b>					●

## Operation of BOD

**Committees under BOD** | The BOD has established the ESG Committee, Outside Director Nominating Committee, Internal Transaction Committee, Audit Committee, and Compensation Committee in accordance with the Articles of Incorporation and BOD Regulations, and delegated specialized authority to each committee to ensure the expertise and objectivity of the BOD's decision-making and enhance the efficiency of the BOD's operations. Except for the ESG Committee, all committees are composed entirely of outside directors to ensure the fairness and independence of the BOD committees, and the BOD evaluates and supervises the effective operation of each committee.

### Composition and Roles of Committees under the BOD

Classification	Major roles	Composition (*Chairperson)			
		Inside directors		Outside directors	
ESG Committee	Deliberating and deciding on major policies related to environmental (E), social (S), and governance (G), including environment and safety, corporate social responsibility (CSR), customer value, shareholder value, and governance.	Cho Young-cheul	Seong Yoon-mo	Chun Myeong-ho	Kang Sun-min*
Outside Director Nominating Committee	Comprehensively reviewing and recommending independent director candidates to the board for their independence from the company and skills appropriate for a director of a global company	-	Seong Yoon-mo	Chun Myeong-ho	Kang Sun-min
Inside Transaction Committee	Deliberating on large-scale internal transactions over a certain size in order to strengthen the company's internal control over internal transactions and external controls such as shareholders, and to improve the effectiveness of oversight of improper support activities	-	Seong Yoon-mo	Chun Myeong-ho*	Kang Sun-min
Audit Committee	Monitoring, supervising, and supporting the management so that the company can continue to enhance corporate value and shareholder value through due process and rational decision-making.	-	Seong Yoon-mo	Chun Myeong-ho	Kang Sun-min*
Compensation Committee	Securing objectiveness and transparency of determination on directors' remuneration	-	Seong Yoon-mo	Chun Myeong-ho*	Kang Sun-min

Base date: Mar. 31, 2024

### 2023 Activities of Committees under the BOD

Classification	ESG Committee	Outside Director Nominating Committee	Audit Committee
No. of meetings	2 times	1 time	6 times

**Activities of BOD** | The BOD is operated in accordance with the Articles of Incorporation and the BOD Operating Regulations, and regularly meets once a quarter, but holds extraordinary meetings as needed. The BOD resolved to provide equipment for earthquake recovery in Turkiye and approved the 2024 Health and Safety Plan and the financial statements.

**BOD Performance Evaluation** | When evaluating executive performance, we consider not only quantitative indicators such as sales, orders, and operating

#### Activities of BOD and Participation

No. of meetings	Decisions made	Update items	Participation rate
7 times	28 cases	8 cases	100%

profit, but also non-metric indicators such as leadership, work expertise, and responsibility. Furthermore, we have established company-wide ESG KPIs and set sustainability-related KPIs for the CEOs of each company, and we continuously check the achievement of each itemized goal.

**Evaluation of BOD Activities** | In order to evaluate the appropriateness of the composition of the BOD and to operate the BOD efficiently, we introduced the BOD activity evaluation system. The BOD evaluation consists of 25 questions in five categories, including the BOD's roles and responsibilities, structure, operation, committees within the BOD, and reflection of the evaluation results, and is conducted once a year by all directors as a self-evaluation method. As a result of the BOD evaluation in 2023, there is no problem with the composition of the BOD and the BOD is fulfilling its roles and responsibilities.

**Remuneration of Directors** | Directors' remuneration is reviewed by the BOD and approved by the general meeting of shareholders, and is paid within the approved remuneration limit. Inside directors receive basic remuneration and performance-based remuneration within the remuneration limit, while outside directors who are members of the Audit Com-

#### BOD Evaluation Item

Category	Evaluation details
Roles and responsibilities of the BOD	Roles and responsibilities
BOD structure	Composition and independence
BOD operation	Operating procedures and agenda
Committees within the BOD	Committees and Audit Committee within the BOD
Incorporation of evaluation results	BOD evaluation and improvement

mittee receive only basic remuneration. In order to strengthen the objectivity and transparency of the remuneration determination process for directors and executives in 2024, a new compensation committee composed exclusively of outside directors was established, and the compensation limit for directors was calculated by the compensation committee and approved by the general meeting of shareholders.

#### Calculation of Performance Pay for Management

The performance compensation of executives consists of management performance fee and long-term performance fee. The management performance fee is paid at the beginning of the following year in consideration of the company's sales, orders, operating profit, and other quantitative indicators for the current year, as well as leadership and expertise in achieving management results. The long-term performance fee, which was newly established at the end of 2023 to prevent management from making decisions based on short-term performance and maximize long-term corporate value, is calculated and paid after the end of the grace period, taking into account indicators such as organizational evaluation and net profit over the grace period (3 years or more). Outside directors and members of the Audit & Supervisory Board are paid a fixed base annual salary without performance bonuses to ensure their independence.

#### 2023 BOD remuneration

Unit: KRW 1 million

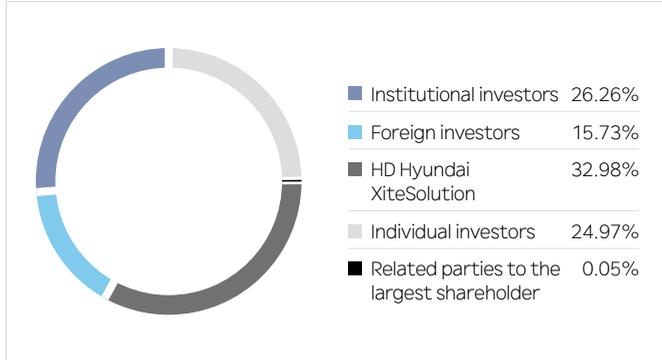
Category	Persons	Total remuneration	Average remuneration per person
Inside director	2	1,596	798
Outsider director	-	-	-
Member of Audit Committee	3	209	70

## Shareholders

**Shareholders and Capital Composition** | As of the end of 2023, HD Hyundai Infracore had 199,603,453 common shares outstanding, with common stock capital of KRW 199,603 million. HD Hyundai Infracore’s largest shareholder is HD Hyundai XiteSolution, which holds 32.98% of the total outstanding shares, and other institutional and individual investors own our shares. We strive to enhance long-term shareholder value by continuously managing issues such as fair information delivery to all shareholders, support for voting.

**Participation in Shareholders’ Meeting** | HD Hyundai Infracore legally solicits proxy voting rights from shareholders when holding shareholder

### Shareholding Distribution



### Shareholders holding 5% or more of shares

Shareholder name	No. of shares held (unit: no. of shares)	Shareholding ratio
HD Hyundai XiteSolution	65,836,710	32.98%
National Pension Fund	17,811,484	8.92%

meetings. We participate in the autonomous dispersal program for shareholders’ general meetings to avoid the concentrated days of shareholders’ general meetings, and have introduced and operated various systems to enable a large number of shareholders to participate in shareholders’ general meetings, such as the electronic voting system to enhance the convenience of shareholders’ attendance at shareholders’ general meetings in addition to the written voting system. In addition, we notify shareholders of the venue, agenda, and related matters four weeks in advance of the general meeting so that they can fully review the agenda.

**Online Dividend Inquiry Service** | HD Hyundai Infracore launched the online dividend inquiry service to enhance shareholders’ convenience, prevent personal information leakage due to mis-delivery of dividend notices, save paper used for mailing, and reduce carbon emissions from the delivery process. HD Hyundai Infracore shareholders can conveniently check dividend details online through simple membership registration and shareholder verification.

[HD Hyundai Infracore Dividend Inquiry Service](#)



**Shareholder Communication** | In order to communicate with shareholders, we regularly hold corporate briefings after the end of each quarter with disclosure of operating (provisional) results, and disclose financial information such as earnings announcements, the holding of shareholders’ meetings, the general meeting of shareholders, business reports, shareholder composition and status, and operating results through our website and electronic disclosure system. In addition, we transparently disclose information to stakeholders about our ESG management intentions and activities through disclosure of non-financial information such as integrated reports, the status of fair trade compliance programs, and corporate governance reports, in addition to general business activities.

**Improving Shareholder Value** | To enhance shareholder value, we implement cash dividends, share buybacks, and share retirements. For cash dividends, the amount of dividends is determined by comprehensively considering business performance, investment plans, financial structure, and cash flow, and we aim to pay out more than 30% of net profit.

In February 2024, we decided to acquire and retire 7.24 million treasury shares valued at KRW 56 billion by August, and paid a cash dividend of KRW 22 billion for the 2023 fiscal year. In addition, in March 2024, we announced the “Establishment of Mid- to Long-Term Shareholder Value Enhancement Policy,” stating that we plan to faithfully implement dividends or share buybacks and retirements of more than 30% of net income based on net income in the consolidated financial statements for the next three years (fiscal years 2024 to 2026). We will continue to respect the rights of shareholders by pursuing a balance of investment for growth and shareholder value enhancement.

## Ethical Management

**Ethical Management Implementation Structure** | In order to practice fair and transparent management, we have established ethical standards such as the Ethics Charter, Code of Ethics, and Business Ethics, and based on these, we operate a practical and systematic ethical management system through education, promotion, and various practice programs. In addition, we apply specific job ethics codes for six jobs that require stricter ethical awareness: procurement, human resources, sales, financial accounting, design, and computerization.

**Ethics Pledge and Conflict of Interest Reporting** | All employees practice ethical management every year in accordance with HD Hyundai's ethical management value 'FOREST' (Fairness, Ownership, Responsibility, Enthusiasm, Safety, Transparency & Trust), and all newly hired employees and first registered suppliers are required to sign the 'Pledge to Practice Ethical Code' to recognize and comply with the contents of the Code of Ethics. In particular, we encourage our suppliers to fulfill their social responsibilities by specifying their obligations to comply with the 'Supplier Code of Ethics' and operate an interest declaration system

### HD Hyundai Ethics Management System

<b>Ethics Charter</b> Implicit declaration of HD Hyundai's management philosophy based on ethical management	<b>Code of Ethics</b> Specification of the Charter by sector and standards of ethical behavior	<b>Business Ethics Practice Guidelines</b> Specific behavioral judgment and work processing standards for practicing ethical management	<b>Education and Promotion</b> Efforts to actively practice and spread ethical management among executives and employees
<b>Code of Ethics for Specific Jobs</b> Additional ethical obligations and specific standards of behavior for specialized jobs requiring high ethical awareness	<b>Code of Ethics for Suppliers</b> Ethical standards for fair and transparent transactions with suppliers for mutual growth and shared prosperity	<b>Ethical Management Practice Program</b> Specific systems and procedures for building and developing a fair and transparent corporate culture	

that requires all employees and employees of suppliers to fill out the 'Interest Declaration Form' every year to prevent human relations risks and fair trade violations that may arise in the course of their duties.

**Ethical Management Risk Management** | HD Hyundai Infracore checks the level of ethical management practices and enhances the understanding of related regulations by having employees conduct self-diagnosis on compliance with ethical management every year, and soliciting opinions on ethical management from employees and suppliers. In addition, we identify unethical behavior and related risks through continuous monitoring of ethical management, and take immediate corrective measures for those that need improvement, or derive improvement tasks with relevant departments, and regularly check the implementation status to prevent recurrence of risks.

**ISO 37001 Certification for Anti-Corruption Management System** | ISO 37001, established by the International Organization for Standardization, is an international standard that stipulates a systematic management system to prevent various bribery and corruption risks that may occur in corporate management activities, and is granted to companies that

have the capacity and system to diagnose corruption factors in advance and immediately recognize and respond to them when they occur according to a manual that meets global standards. HD Hyundai Infracore was certified as an international standard anti-corruption management system by Lloyd's Register (LRQA), a global certification body, in recognition of its ability to manage corruption risks by passing the audit in seven areas such as organizational situation, leadership, planning, and 31 detailed items such as corruption risk assessment and anti-corruption policy. We will continue to conduct regular internal audits to monitor the occurrence of significant corruption risks and practice global ethics and compliance management to establish a transparent and fair corporate culture.

**Internalization of Compliance Management** | In order to enhance the understanding of HD Hyundai's Ethics Charter and policies and enhance the willingness to comply, we conducted online and offline compliance training for all employees. The compliance training consisted of introducing cases and countermeasures for various unethical issues such as anti-corruption and discrimination, as well as related behavioral guidelines. We also conducted additional Distance learning training for departments identified as medium or higher risk through risk assessment, and a total of 461 employees completed the training. In addition, we provided subcontracting law training to departments related to fair trade, such as procurement, quality, materials, and R&D, and agency law training to those in charge of agency business. In addition, we published guidelines for compliance with the Anti-Corruption Act and CP-related regulations on Group ESG under the leadership of the HD Hyundai Group holding company to encourage company-wide

participation in compliance management and strive to practice transparent management.

- [Anti-Corruption Compliance Guidance](#)
- [Compliance Program Guidelines](#)

**Operation of Compliance Program** | We operate the Compliance Program (CP) to enhance our credibility with customers, suppliers, and other stakeholders based on fair trade. The CP is an internal compliance system that provides clear standards of behavior and procedures for employees to comply with fair trade-related laws and regulations on their own, and includes training and inspection activities to prevent violations of laws and regulations in advance, as well as activities to detect violations at an early stage and prepare countermeasures. The Company has appointed a compliance manager to oversee CP operations, and has set up the Legal Department as the department in charge of CP oversight and practice, and the Procurement Planning Department as the department in charge of CP on-site, to promote company-wide compliance with fair trade laws and regulations and preventive activities.

[Shared Growth Program](#)

### 2023 Compliance Activities

<b>Monitoring</b>	Training on Fair Transactions in Subcontracting Act (Check for subcontract price reductions, canceled orders, etc.) Checking subcontractor and above-custodial transaction payments
<b>Training on the Fair Transactions in Subcontracting Act</b>	Regular training on Fair Transactions in Subcontracting Act (1st half, 2nd half of the year) Training on Fair Transactions in Subcontracting Act for new employees and experienced employees in charge of procurement Explaining the policies related to the implementation of price adjustment system
<b>Response to investigation</b>	Fair Trade Commission Subcontracting and Agency Transactions Survey



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# Environmental Management

HD Hyundai Infracore has established step-by-step goals for 2030 to strengthen eco-friendly activities in the entire value chain and pursue sustainable growth, and is implementing an environmental management strategy to achieve them. To reduce the use of limited resources, we are conducting various activities such as reducing water usage and expanding water reuse, and minimizing environmental impact through active waste recycling efforts, operating an IoT-based integrated monitoring system, and introducing optimal prevention technologies. In addition, we will implement an environmental management system (ISO14001) at global production sites and all domestic sites to promote environmental management that meets global standards.

## Environmental Management Strategies and Metrics/Targets<sup>1)</sup>

Strategic direction	Management metrics	Target	2023	2024	2030	Major Implementation Plan
			Actual	Target	Target	
Improving resource utilization efficiency through improved resource management and advanced production processes	Water usage <sup>2)</sup>	679,871 ton	<b>502,520 ton</b>	643,946 ton	<b>598,686ton</b>	<ul style="list-style-type: none"> <li>Establishing a water data management system</li> </ul>
	Cumulative water savings <sup>4)</sup>	173,493 ton	<b>590,969 ton</b>	295,694 ton	<b>2,033,021 ton</b>	<ul style="list-style-type: none"> <li>Operating a wastewater recycling system and expanding its use</li> </ul>
	Cumulative Waste Reduction <sup>4)</sup>	9,924 ton	<b>38,241 ton</b>	16,915 ton	<b>116,296 ton</b>	<ul style="list-style-type: none"> <li>Installing water reuse facilities</li> </ul>
	Waste Recycling Rate	95%	<b>98%</b>	95%	<b>95%</b>	<ul style="list-style-type: none"> <li>Establishing eco-friendly production processes and reducing the use of raw materials</li> </ul>
Reducing emissions through digital-based monitoring and optimal prevention technologies	Zero Waste to Landfill ZWTL	GOLD rating	<b>GOLD rating</b>	GOLD rating	<b>GOLD rating</b>	<ul style="list-style-type: none"> <li>Adding a new BAT technology prevention facility</li> </ul>
	Waste generation	38,891 ton	<b>24,379 ton</b>	36,836 ton	<b>34,247 ton</b>	<ul style="list-style-type: none"> <li>Expanding installation of low-NOx burners</li> </ul>
	Cumulative VOCs emission improvement <sup>3)4)</sup>	3,694kg	<b>3,751kg</b>	6,296kg	<b>43,286kg</b>	<ul style="list-style-type: none"> <li>Developing and applying eco-friendly paint</li> </ul>
Expanding global standards for environmental management	Global Environmental Management System Certification	71%	<b>71%</b>	100%	<b>100%</b>	<ul style="list-style-type: none"> <li>Verifying ISO guidelines through annual audits by certification bodies</li> <li>Certifying environmental management systems at overseas sites</li> </ul>

1) Based on domestic worksites 2) Based on water intake for water consumption target 3) Based on Total Hydrocarbon (THC) emissions 4) Cumulative number compared to 2020

## Environmental Management Implementation System

**Environmental Management Organization** | HD Hyundai Infracore manages environmental management activities and their performance throughout the company through the ESG Committee under the BOD, management, and the organization in charge of environmental management. The CEO conducts decision-making and management supervision on the next year's plan with the aim of monitoring major environmental issues and environmental management performance and implementing environmental policies, while the ESG Committee under the BOD, the highest decision-making body, conducts decision-making on key issues to secure environmental management leadership and execution. In 2023, we reflected EHS evaluation indicators into management KPIs and conducted field-driven greenhouse gas emission reduction and environmental pollutant emission reduction activities.



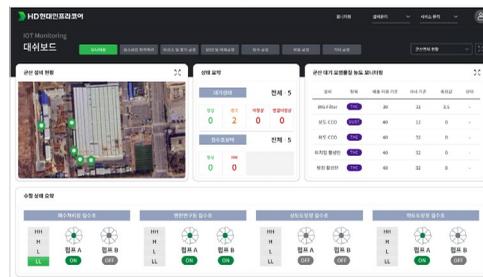
**Environmental Management Policy** | HD Hyundai Infracore strives for a sustainable future by minimizing environmental impacts across its corporate activities and pursuing sustainable growth with the environment as its top priority. In 2023, we promulgated an environmental management policy for all stakeholders after approval by the ESG Committee of the BOD to strengthen environmental management activities throughout the value chain. In addition, we have established environmental management and environmental facility management systems to systematically manage the overall process by checking the status and managing performance in accordance with internal policies.

[Environmental Management Policy](#)

**Environmental Management Activities** | HD Hyundai Infracore systematically manages the entire process of environmental management, from goal establishment to planning, execution, and improvement. We organize monthly field patrols to communicate with sites and encourage the horizontal development of various environmental management activities, such as selecting environmental themes, sharing related EHS issues, and conveying EHS best practices through EHS operation meetings organized by each headquarters. In addition, we check the operation of the environmental management system by conducting ISO 14001 internal audits and external audits through external certification bodies every year, and systematically monitor the level of compliance with environmental laws and regulations by conducting environmental compliance assessments at all domestic and overseas worksites twice a year and taking corrective and preventive measures through the EHS management system (HI-EHS).

**Environmental Accident Response System** | We have established a pollutant spill prevention system to minimize the possibility and impact of environmental accident, and we also operate a leakage vacuum lorry to quickly respond to environmental accidents in nearby communities. We installed sluice gates for rainwater to minimize pollutant spills through rainwater, and established an automatic sluice gate blocking system through pollutant detection sensors and workplace risk mapping to establish an emergency response system through constant monitoring. In addition, we are preventing environmental accidents through prevention activities such as replacing old wastewater pipes and managing environmental facility markings. The IoT-based integrated monitoring system maintains environmental facilities in optimal condition by managing temperature, vibration, flow rate, dust concentration, etc. in real time, enabling stable operation of pollutant emission control and predictive maintenance, which fundamentally solves the risk of environmental accidents due to equipment failure. We are also making efforts to strengthen the environmental accident response capabilities of employees by conducting environmental accident response drills twice a year by district.

HI-ECO System Based on IoT Technology



**Environmental Impact Analysis and Resource Utilization Efficiency**

HD Hyundai Infracore strictly manages environmental impact substances that affect local communities, such as dust, waste, and wastewater, to a level below 40% of the legal threshold. We conducted an environmental impact assessment based on the material balance of each process and established KPIs for each department to identify and improve important environmental impact items, and checked and monitored improvement performance through monthly EHS management meetings with management participation. As a result, we have identified and derived a total of 180 important environmental impact items and achieved resource savings in the last three years. In 2023, we have established specific environmental targets for air, water, and waste at a level of 40% reduction from BAU emissions, and plan to implement them in stages to promote management activities for a sustainable environment.

**Water Resources** | HD Hyundai Infracore manages water sources and grasps the status of water intake in order to effectively reduce water usage and expand water reuse. We operate a wastewater reuse system that reuses some of the treated effluent from water treatment plants in our production processes, and continue to expand its use. In 2023, we reused 69% of treated wastewater in production processes, reducing annual water use by 61,770 tons of reused water. In addition, we reused 4,020 tons of water for landscaping and cooling water through rainwater and wastewater reclamation and reusing water. In addition to reuse, we achieved a cumulative reduction of 590,969 tons of water use compared to 2020 through continuous improvement activities such as process changes and introduction of eco-friendly technologies. We also strive for efficient

water use by periodically checking water supply pipes to identify leaks and taking immediate action.

**Water Pollution Control** | All wastewater generated from the production process is treated at the on-site wastewater treatment plant and cleaned before being discharged. To eliminate the environmental risk that pollutants that may have been deposited on the factory site may cause nearby pollution by rainwater during early rainfall, we have installed and operated non-point source pollution reduction facilities that ensure clean rainwater is discharged. We maximize wastewater treatment efficiency by installing an automatic TOC meter for real-time monitoring of incoming wastewater and treating wastewater according to the concentration of raw water, and reduce waste by improving the performance of dehydrators to manage the moisture rate of wastewater treatment sludge. Wastewater from the Incheon and Gunsan plants is treated through wastewater treatment facilities and discharged to the local government sewage end-of-line treatment plant, and more than 69% of wastewater generated at the Incheon worksite is treated and reused through wastewater reuse facilities to minimize external discharge of pollutants. In addition, we set and manage the internal standard water pollutant discharge concentration at 40% of the legal standard, and in addition to the IoT-based integrated environmental monitoring system for wastewater treatment plant operation, we are doing our best to comply with environmental regulations by monitoring the wastewater treatment status in real time through 24-hour resident operation.

**Waste** | In order to reduce waste emissions generation, all worksites optimize process design, check and maintain facilities, and establish strict internal standards to properly treat waste generated in the production process, avoid landfills and incineration, and promote recycling. We strictly manage all wastes in accordance with relevant laws and regulations through the proper system of the Ministry of Environment and conduct real-time management and periodic monitoring of the entire process from waste generation to storage, treatment, and recycling. We continuously identify and manage contractors and recycling companies with excellent capabilities and implement a recycling priority policy. We also strive to minimize our environmental impact by introducing various measures, such as using captured dust as fuel for cement manufacturing by classifying it by nature and converting solid fuel instead of incinerating it to recycle resources. In 2023, we built an eco-friendly line at the engine assembly plant to dramatically reduce the use of oil and cutting oils, and continued to promote activities to reduce process resources and emissions by investing in eco-friendly processes, changing processes, and developing eco-friendly paints to reduce resource use. In 2023, we spent KRW 22,297 million on investments in facilities and technologies to minimize waste generation, and as a result, we reduced waste generation by more than 37% compared to 2022, achieved reduction of 14,513 tons compared to 2020 through waste reduction activities in 2023, and recycled a total of 23,785 tons of waste generated, contributing to a resource-circulating economy. As a result of our continuous resource recycling policies, the Incheon worksite has achieved the ZWTL<sup>1)</sup> certification Gold (95~99%) rating for three consecutive years.

**Chemical Substances** | We monitor and manage chemical substances through HDICMS (HD Hyundai Infracore Chemicals Management System), our in-house hazardous substance management system, and proactively respond to increasingly stringent domestic chemical regulations based on HDICMS.

1) ZWTL (Zero Waste to Landfill) certification: Certification of landfill waste elimination. Certified by UL (Underwriters Laboratories), a US environmental safety certification organization. Grades such as Platinum (100%), Gold (95~99%), Silver (90~94%) are awarded based on waste recycling rates.

In 2015, we began a survey of all hazardous chemicals used in our work processes, and since 2016, we have analyzed the feasibility of substituting hazardous chemical products and replaced and eliminated 11 substances subject to management under the Chemical Substances Control Act, and by 2023, we plan to replace a total of 66 hazardous chemical products to build a workplace with zero hazardous chemicals. We are safely managing hazardous chemicals at the company-wide level by establishing regulated substance management policies, distributing work process guides for related departments, and establishing response processes for overseas subsidiaries. We also strive to disseminate relevant chemical-related systems and management methods by conducting internal and external supplier training every year.

**Air Pollution Control** | Air pollution prevention facilities and high-efficiency filters with BAT (Best Available Technology) technology are installed at each worksite, and low-NOx burners are installed at many production facilities to reduce emissions of dust and nitrogen oxides.

In addition, improvement activities to minimize pollutant generation through substitution of eco-friendly raw materials and process changes in the production process are being carried out according to the plan, and we have achieved a cumulative emission reduction of 3.75 tons of THC compared to 2020. Pollutants are measured and managed at an increased frequency beyond the legal self-measurement cycle, and standards are established and managed to emit less than 40% of the legal standard through an IoT-based integrated monitoring system. We also continue to invest in emission reduction activities such as installing additional series of prevention facilities such as RTO, scrubbers, and catalytic reaction facilities, developing eco-friendly paints, and applying chemicals.

#### VOCs Emissions Management Metric

Unit: kg

Metrics and targets <sup>1)</sup>	Accumulated emissions		Accumulated emissions target	
	2023	2023	2025	2030
<b>VOCs emissions</b>	42,524	42,581	70,785	142,888

1) Based on total hydrocarbon emissions in Korea, compared to baseline 2021

#### Completion of Environmental Training in 2023

Training course	EHS Keyman Training	Training on EHS internal auditors	Introductory training for new and experienced employees	Response to Climate Change and RE100	Training on chemical substance information for suppliers
<b>Major content</b>	Understanding of requirements of ISO 14001, ISO45001 EHS Keyman	ISO 14001, ISO 45001 internal audit and how to respond	Environmental management at worksites and legal trend Environmental management and corporate value Climate change response and carbon neutrality	Detailed RE100 implementation measures to respond to climate change	Response to laws related to chemical substances in Korea Input of chemical substances information related to raw and secondary materials
<b>Energy</b>	●	●	●	●	
<b>Water</b>	●	●		●	
<b>Waste</b>	●	●	●	●	
<b>Chemical substances</b>	●	●	●		●
<b>Trainees</b>	EHS Keyman	Those involved in EHS work	New and experienced employees	Person in charge of RE100 and carbon emissions facilities	Supplier-based chemical substance managers
<b>No. of trainees/ training method</b>	27/ Face-to-face	48/ Face-to-face	93/ Face-to-face	22/ Face-to-face	10/Face-to-face
<b>Date and time</b>	Feb. Apr. Jun. Nov. 2023	Jul. 2023	Jul. 2023	Oct. 2023	Feb. 2023

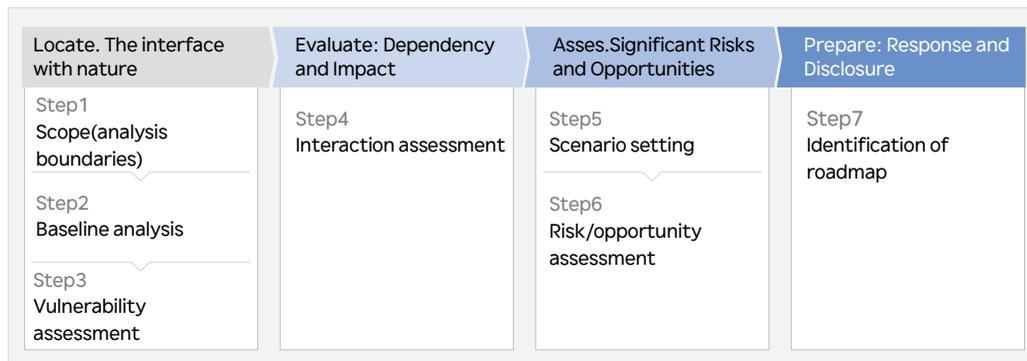
# Biodiversity

## Biodiversity Risk Assessment

We conducted an assessment of biodiversity risk based on the LEAP (Locate, Evaluate, Assess, Prepare) approach, a risk and opportunity factor assessment methodology to evaluate ecosystem changes and analyze and mitigate risks. The biodiversity risk assessment was conducted at seven major domestic and overseas sites, including all global sites, considering vulnerability, dependency, and impact, and the scope of the assessment included up-stream, Near-assets, and downstream.

**Locate (The interface with nature)** In order to understand the exposure to biodiversity sensitive locations at our seven domestic and overseas assets, we analyzed the local vegetation and species within the radius of the worksite boundaries. To determine the sensitivity of the area, eight ecosystem indicators (climate, water availability, water quality, flooding, cultural heritage, species diversity, air quality, and soil quality) were categorized and analyzed in accordance with TNFD guidelines, considering four areas: biodiversity importance, ecosystem integrity, ecosystem service delivery importance, and water physical risk. As a result, we identified the company's contact with nature and identified biodiversity species and protected and sensitive sites within the company's operations.

## Assessment process under the Biodiversity Risk Assessment Framework



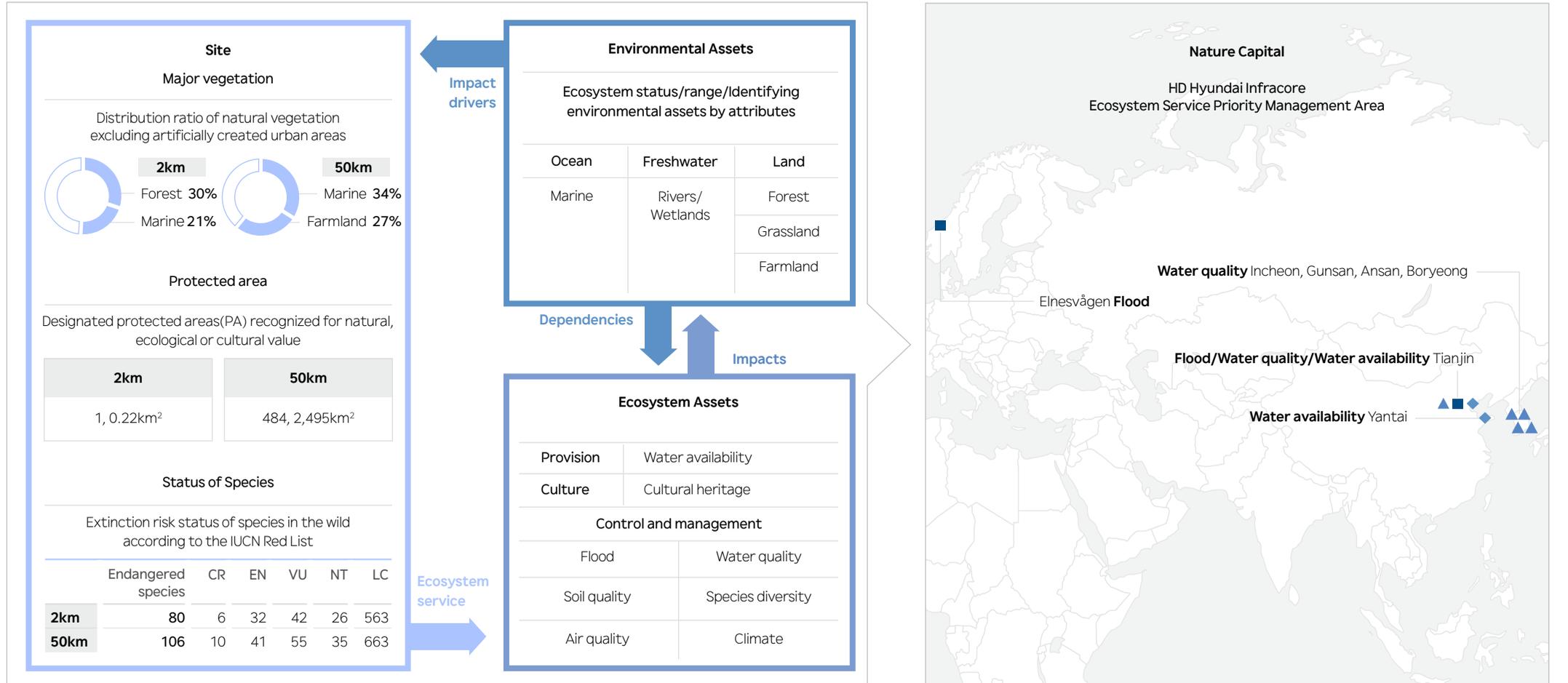
## Status of Species and Protected Area Exposure

Worksites	Endangered species on IUCN red list						Identified key nature reserves (distance from protected areas)	Classification	
	Within adjacent areas (~2 km)			Buffer areas (2 km ~ 50 km)					
	Critically Endangered (CR)	Endangered (EN)	Vulnerable (VU)	Critically Endangered (CR)	Endangered (EN)	Vulnerable (VU)			
Korea	Incheon	3	26	31	2	7	4	Songdo Tidal Flats (7.35 km)	Wetland protection
	Ansan	0	7	9	5	24	26	Surisan Provincial Park (4.85 km)	Provincial park
	Bo-ryeong	0	6	7	5	27	29	Seongju-myeon, Boryeong, Chungnam (4.39 km)	Wildlife protection
	Gunsan	5	28	34	0	7	29	Seocheon Tidal Flat (2.17 km)	Wetland protection
China	Tianjin	1	5	6	2	19	19	-	-
	Yantai	1	19	21	3	9	11	-	-
Norway	Elnesvågen	1	1	2	0	5	12	Frøneidet(1.16km)	Nature reserve
								Sylteosen(3.76km)	Wildlife protection
								Hustadvassdraget(5.23km)	Nature reserve
							Hostadvatnet(6.82km)	Nature reserve	

## Ecosystem services sensitivity by worksite

Classification	Worksite	Sensitivity 1 2 3 4							
		Water availability	Cultural heritage	Flood	Soil quality	Air quality	Water quality	Species diversity	Climate
Korea	Incheon	●	●	●	●	●	●	●	●
	Gunsan	●	●	●	●	●	●	●	●
	Ansan	●	●	●	●	●	●	●	●
	Boryeong	●	○	●	●	●	●	●	●
China	Yantai	●	○	●	●	●	●	●	●
	Tianjin	●	○	●	●	●	●	●	●
Norway	Elnesvågen	○	○	●	●	○	●	●	○

**Evaluate (Dependency and Impact)** We assessed vulnerability to biodiversity by evaluating natural vegetation exposure and ecosystem service sensitivity at seven major domestic and overseas assets' near-site, and analyzed dependencies and impacts through raw/material use and pollutant data and the Encore Tool. Based on this, we conducted an interaction assessment to identify priority management areas as follows.



Impact drivers (arrow from Environmental Assets to Site)

Impacts (arrow from Ecosystem Assets to Environmental Assets)

Ecosystem service (arrow from Site to Ecosystem Assets)

**Analysis of Value Chain Dependency and Impact**

We identified the industries within the value chain of our business activities to analyze biodiversity-related risks, and utilized the ENCORE Tool to determine our dependency and impact on biodiversity across the entire value chain. The value chain was categorized into industries based on the Global Industry Classification Standard (GICS) for each upstream, operation, and downstream.

**Assessment of Value Chain Dependency and Impact by Ecosystem Service**

Classification	Upstream								Operation	Downstream	
	Steel production	Construction material	Specialty Chemicals			Power		Heavy equipment	Construction	Diversified Metals & Mining	
Industry group	Manufacturing	Production	Catalytic cracking, fractional distillation and crystallization	Solids processing	Nuclear and thermal power stations	Hydro-power	Utilities	Transmission	Manufacturing	Infrastructure builds	Mining
Dependency	Water availability	●			●	●					
	Flood							●			
	Drought						●				
Impact	Water availability				●	●					●
	Species diversity		●			●				●	●
	Climate moderation	●	●	●	●	●		●	●	●	●

**Encore tool analysis results**

Value Chain	Dependency on natural capital	Impact on ecosystem
<b>Upstream</b> (Production and processing of raw materials)	Highly dependent on water availability due to high use of water resources in: (upstream) molding sand and SIC production, power; (downstream) mineral production.	Reduction of habitat with direct changes in land use upon molding sand production and hydropower generation
<b>Operation &amp; Adjacent areas</b> (Own worksites and adjacent areas)	Relatively high dependency on water availability due to water usage and moderate dependence on natural sound insulation from noise pollution	High water availability due to high water usage High ecological impact due to high soil/water pollutant emissions
<b>Downstream</b> (Use by customers/consumers)	High dependency on water availability due to high water use during the mineral production phase	Habitat loss due to direct land use change during construction and mining High water availability due to overuse of mining water

**Assess(Identification of risks and opportunities)**

A scenario analysis was conducted to explore the expected risks and opportunities due to policy and environmental changes to establish future biodiversity response strategies. The scenarios were divided into four scenarios according to 'ecosystem service degradation' and 'market and non-market signals', and analyzed by applying TNFD #1, which assumes that policies will be strengthened to achieve GBF and natural ecosystems will be stable; TNFD #3, which assumes that nature conservation policies will fail to be implemented and natural ecosystems will be severely degraded; and TNFD #4, which assumes that policies will be implemented that are biased toward GHG reduction and natural ecosystems will be relatively stable. In analyzing the scenarios, we gathered stakeholders' opinions through interviews with policy trends in each country and NGOs near the worksites, and applied them to the risk and opportunity assessment. The main physical risk is water resource depletion, and the main transition risk is the expansion of protected areas and increased environmental responsibility in the use of construction machinery, but there is a high potential for utilizing opportunity factors due to increased resource efficiency and activation of eco-friendly markets.

**Results of Biodiversity Related Risks and Opportunities Assessment**

Area	Impact		Scenario
<b>Risk</b>			
<b>Physical risk</b>	Acute	Natural damage from extreme weather events	Operational limitations and increased costs due to water depletion, fixed assets due to ground subsidence <b>TNFD#3</b>
<b>Transition risk</b>	Policy	Enhanced nature related reporting Introduction of mandatory and emergency regulations	Increased raw material prices and pollution control costs due to protected area expansion <b>TNFD#1</b>
	Reputation	Changes in consumer sentiment toward brand due to poor management of nature	Potential reputational damage due to increased demands for ecosystem destruction accountability Increased community conflicts over water use, etc. due to business operations in degraded natural conditions <b>TNFD#3</b>
<b>Opportunity</b>			
<b>Resource efficiency</b>		Use of less natural resources and energy and recycling	Saving raw material purchase cost and reducing risk of exposure to price volatility with improving natural resources use efficiency and expansion of recycled amount <b>TNFD#1</b>
<b>Market</b>		Entry into new markets	Increasing access to environmental impact reduction products (electric excavators, hydrogen combustion engine) with the vitalization of eco-friendly construction equipment market <b>TNFD#1</b>
<b>Financial incentives</b>		Cooperation with stakeholders to solve natural problems	Improving profit generation and access to capital by implementing ecosystem restoration project <b>TNFD#1</b>

Prepare (Response and Disclosure)     |

Response strategy	Outcome
Biodiversity goal setting	Management indicator goal setting
Data-based activities and planning	Protection of endangered species
Risk management process	Periodic biodiversity risk assessment
External disclosure	Declaration and disclosure of biodiversity policy

HD Hyundai Infracore manages risks related to biodiversity conservation by integrating them into the company-wide risk management process in order to minimize the impact on ecosystems and fulfill its responsibilities for their restoration while conducting business at global sites, and establishes countermeasures for prevention and reduction of adverse ecosystem impacts and ecosystem regeneration and restoration based on biodiversity risk assessment. In February 2024, we established the Biodiversity Protection Policy, which includes governance, biodiversity protection principles, and implementation system, and publicly announced it through the approval of the BOD, and applied it to major domestic and overseas worksites. We will continue to gradually expand the scope of biodiversity management to reduce risks to ecosystem dependence and minimize ecosystem impacts. [Biodiversity Protection Policy](#)

Ecosystem Conservation Activities

Since 2023, HD Hyundai Infracore has been carrying out various ecosystem conservation activities under the slogan #Save the Earth, Save Us to restore ecosystems and preserve biodiversity.

**Endangered Species Protection Activities** | In May 2024, we celebrated the UN-designated 'International Day for Biological Diversity' and conducted activities to maintain and preserve the species diversity of plants and animals, including endangered species. We removed harmful plants from the Incheon Namdong Reservoir, a habitat for Black-faced spoonbill, a globally endangered species, and cleaned up the reservoir. As harmful plants around the habitat of spoonbills attach to their bodies and hinder their activities and reproduction, we conducted conservation activities to protect the population by removing them in advance. As part of the Hope School program, which provides learning opportunities for youth in poverty-stricken areas, Yantai's subsidiary in China visited local schools to provide biodiversity protection education and recreational activities.

Ecosystem Conservation Activities Participated in by Employees in Norway



**Global Volunteer Day** | HD Hyundai Construction Equipment Sector, including HD Hyundai Infracore, have designated 'Global Volunteer Day' to engage in environmental protection activities at worksites around the world to restore ecosystems and preserve biodiversity, and more than 1,400 employees around the world participated in the first Global Volunteer Day in May 2023. HD Hyundai Infracore is participating in the Pet Beach Cleanup, a marine ecosystem restoration project organized by the Ministry of Oceans and Fisheries. On the day of service, employees from Incheon and Gunsan participated in collecting 1.1 tons of marine debris, including buoys and ropes, from Hanagae Beach in Muido, Incheon, and Okdol Beach in Seonyudo, Gunsan. Global plants in China, the U.S., the Czech Republic, and Norway also participated in environmental protection and cleanup activities on the same day, visiting forests and other areas around their plants. HD Hyundai Construction Equipment Sector plans to continue its ecosystem restoration activities by designating one day in May every year as the 'Global Volunteer Day'.

Notice of participation in the Global Day of Service in Chile



**Preserving the ecosystem of Bukhansan Uiryeonggil** | HD Hyundai Construction Equipment Sector, including HD Hyundai Infracore, signed a Memorandum of Understanding(MOU) with the Korea National Park Service to restore the ecosystem of the national park and preserve biodiversity. Under the agreement, HD Hyundai Infracore will donate KRW 250 million by 2027 in increments of KRW 50 million, and will help preserve and restore Uiryeonggil by monitoring ecological monitoring and strengthening ecological corridor functions. In addition, employees will participate in environmental cleanup activities to remove alien species that disturb the ecosystem. This agreement is significant as a public-private partnership to realize carbon neutrality, and we will further expand our sustainable management activities through this national park preservation project.

**Local Ecological Preservation Activities** | In order to preserve the local ecology and coexist with the local community, we have been conducting environmental cleanup activities near the Incheon plant every month, and since 2023, we have expanded our efforts to improve the local environment by conducting periodic environmental cleanup activities at the Ansan Parts Center and Gunsan Worksite.

Ecosystem Conservation Activities Participated by Employees in Korea



# Local Communities

## Local CSR Implementation Activities

**Corporate Community Involvement Committee** | HD Hyundai Infracore has established the Corporate Community Involvement Committee, a body that deliberates and decides on donation-related matters, to make donations more transparent and appropriate, and has established related regulations. The Corporate Community Involvement Committee is chaired by the CEO, who is also the chairman of the ESG Management Committee, and includes the CFO, legal and CSR executives as members, and is responsible for deliberating on whether to make a donation and the amount of the donation, considering various factors such as the purpose of the donation, relevance to the company's business, public interest, and the company's financial situation. Donations with an amount of KRW 100 million or more, or those deemed necessary to discuss with the BOD, are presented to the BOD for approval.

### Corporate Community Involvement Committee



**Corporate Community Involvement Implementation Strategies** | Under HD Hyundai Infracore's vision of 'A Better World, A Brighter Future', HD Hyundai Infracore is engaged in three core business areas: coexistence with local communities, care for the underprivileged, and self-reliance for future generations; participatory contribution activities, where all employees participate in sharing activities; sustainable contribution activities, where the company and the community aim for the future together; and empathetic contribution activities, where social responsibility and authenticity are the values. We will continue to make efforts to realize a happy place where companies and local communities can develop together and live happily through meaningful social contribution activities that take into account local characteristics based on various collaborations with competent non-profit organizations in local communities.

### Strategic Directions of HD Hyundai's Social Contribution

Vision	<b>"A Better World, A Brighter Future"</b>		
Main Direction	<b>Inclusive HD Hyundai</b>	<b>Sustainable HD Hyundai</b>	<b>Innovative and active HD Hyundai</b>
	HD Hyundai aims to improve the human rights and quality of life of the socially marginalized so that all members of society are equally respected regardless of their diverse backgrounds.	HD Hyundai companies pursue sustainable development by understanding and taking responsibility for their social, economic, and environmental impacts.	HD Hyundai explores innovative ideas to solve diverse and complex societal problems, and actively puts them into practice.
Focused areas	<b>Co-prosperity with local communities</b>	<b>Supporting and caring for vulnerable populations</b>	<b>Environmental protection</b>
	Keeping the founder's spirit alive to create a happy place where businesses and communities thrive together	Providing educational opportunities and improving the environment to build economic independence and improve quality of life	Contributing to the sustainable development of local communities and ensuring the health and safety of future generations through environmental conservation/improvement activities

### Domestic CSR Activities

**Caring for the Underprivileged** | Through CSR activities involving all employees, we have been continuously carrying out various activities to improve the quality of life of the underprivileged and build a brighter living environment. Every year, we deliver kimchi to vulnerable households through the 'Sharing Kimchi with Love' volunteer activity, and every holiday, we donate rice to low-income, marginalized, and welfare organizations in the Incheon community through the 'Sharing Rice with Love' activity. In addition, we donated stand-alone smoke detectors to the Gunsan Fire Department for the residential safety of fire-prone households, delivered lunch boxes consisting of a 'longevity healthy diet' to the elderly living alone in Seongnam, and donated to sisterhood welfare facilities. As a result of our active and continuous community contributions,

we were certified by the Community Contribution Recognition System and received the Incheon Mayor's Commendation for excellence among certified companies.

Benefit to in-kind donation recipients in 2023	<b>KRW 249 million</b>
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\* Measurement target: 5 in-kind items in 2023 (briquettes, kimchi, smoke detectors, rice, lunch boxes)  
Measurement method: Market price comparison  
Estimated number of households to benefit: Approximately 1,675 (assuming one year of consumption of donated in-kind per household)

### HD Hyundai 1% Nanum Foundation Sponsorship

| Since 2020, we have been participating in the HD Hyundai 1% Nanum Foundation, where employees voluntarily donate 1% of their monthly salary to the foundation. In 2023, 1,453 employees, or 49% of the workforce, participated in the program, donating a total of KRW 520 million, and the donations raised are used for various social contribution activities such as supporting local communities, caring for the underprivileged, and supporting socially vulnerable facilities.

Briquette distribution volunteer activities in 2023



**Dream School** | HD Hyundai Infracore, together with World Vision, an international relief and development NGO, has been operating Dream School, a mentoring-based youth dream-finding program, since 2012. Now in its 12th year, Dream School is a signature social contribution program that helps vulnerable youth find a career path without giving up on their dreams and visions. To date, a total of 503 youth and 435 employee mentors have participated in the program. The mentees participate in a one-year dream-finding mentoring program with employee mentors, and after the mentoring program ends, they continue to participate in a five-year dream-finding activity that includes a self-exploration program to identify their interests, career exploration activities to find their dreams, visits to majors and schools of interest, and writing a personal growth plan.

In March 2023, we held the 10th Dream School inauguration ceremony, where 21 employee mentors and 22 youth mentees participated in the Dream School, and in December, we held a homecoming day to conclude the program for the graduating mentees who completed the program this year, and held a lecture by an expert mentor and a tour of HD Hyundai Bundang GRC, with a total of 120 mentees and mentors participating.

Dream School Homecoming Day 2023



**The Junior Engineering Class** | The Junior Engineering School has been running for 16 years since 2008, and is a social contribution program in which employees voluntarily form volunteer clubs and participate as one-day teachers to teach elementary school students about scientific principles. In 2023, we held a hands-on class at the Bundang Hansol Regional Children's Center near HD Hyundai Bundang GRC to teach elementary school students about the aeronautical engineering principles of drones, which play an important role in Concept-X, an unmanned and automated solution for construction equipment. We will continue to expand voluntary service clubs such as the Junior Engineering Club to create a positive impact on the local community.

**Security and Shared Growth of Local Communities** | HD Hyundai Infracore has established a twinning relationship with the 17th Infantry Division of the Army in Incheon for community security and mutual benefit, providing condolence money, snacks for the soldiers, and excavator maintenance training for the soldiers of the Engineer Battalion. We plan to make the twinning relationship with the 17th Infantry Division an exemplary case of win-win cooperation between business and the military.

Sisterhood formation ceremony with the Army's 17th Infantry Division



### Overseas CSR Activities

**Construction Support for Hope Elementary School in China** | Under the slogan of 'Building a beautiful society in China Together', our Chinese subsidiary has been participating in "Project Hope", a public service project that involves the provision of educational support for Chinese youth and improvement of the educational environment in underprivileged regions of China. Since 2001, we have completed a total of 34 Hope Elementary Schools in poverty-stricken areas of China, providing learning opportunities and contributing to local education projects and the sustainable development of China.

**Donation of Solar Lanterns** | HD Hyundai Infracore, together with its employees, organized the 'Solar Lantern Donation Activity' to help children in energy-poor countries overseas. The solar lantern donation activity was part of the 'Lighting Children' campaign, which aims to donate solar lanterns to local residents in energy-poor countries living without electricity to help them study and walk safely at night and prevent crimes during nighttime activities. In the first half of 2024, 380 solar lanterns and letters of support were delivered to energy-poor areas in Asia and Africa. HD Hyundai Infracore plans to continue to carry out various social contribution activities involving employees to ensure the healthy growth of future generations and environmental protection.

**Natural Disaster Recovery Support** | HD Hyundai Infracore donated 10 medium-sized excavators worth approximately USD 1.5 million to support the recovery efforts in Turkiye, which was severely damaged by the 2023 earthquake, and 50 technicians voluntarily

raised and delivered donations. We also donated four 15-ton excavators (DX150W) to help secure the safety of local residents and restore damage in Zhuzhou, Hebei, China, where heavy rains caused severe flooding.

**Disaster Recovery Support** | HD Hyundai Construction Equipment Sector including HD Hyundai Infracore, signed an agreement on the supply of construction equipment and training for the reconstruction of Ukraine, and donated five major pieces of equipment (crawler excavators, wheeled excavators, and forklifts) and provided support to train local construction equipment experts. The donated equipment will be used for rescue work, road restoration, building debris removal, and other reconstruction activities.

Departure of construction equipment to support Ukraine



# Customer Value

## Quality Management System

**Quality Meetings** | HD Hyundai Infracore operates a company-wide integrated quality meetings that deal with quality issues and risks to strengthen the quality system and management. Once a month, the CEO, with the participation of senior executives, team leaders, and partners, reports quality indicators, discusses major quality-related issues, and derives improvement plans.

**Quality Management Structure** | We have established four quality policies: developing reliable products that comply with domestic and international laws and regulations and reflect the needs of the market and customers to achieve our vision of 'Global Leader in Infrastructure Solutions', securing stable product quality through compliance with standards, resolving quality issues quickly and fundamentally from the customer's perspective, and maximizing customer satisfaction by strengthening service competitiveness, and have



established a quality management system to realize these policies.

**Quality Management System** | HD Hyundai Infracore has renewed its ISO 9001 quality management system certification to continue to enhance its quality management capabilities at the international level.

**Quality Management Process** | HD Hyundai Infracore operates a systematic management process to prevent quality defects and improve the quality of projects. We follow the PDCA (Plan-Do-Check-Action) process to perform tasks according to the quality policy and plan and check compliance with the standards.

**PTS Quality Management** | HD Hyundai Infracore utilizes the Project Tracking System (PTS), a quality project management system, to monitor the step-by-step progress of market, fair, and good quality-related projects, customer VOC improvements, and improvement effects to support quality improvement activities and drive improvement speed. In addition, we utilize quality meetings including weekly topical issues and register daily claim issues to establish a permanent monitoring

system to continuously manage quality issues.

**Supplier Quality Management** | In order to strengthen quality management of suppliers, we are expanding the application of a digital-based SPC system that automatically transmits and monitors Statistical Process Control (SPC) data of suppliers in real time and checks their process management capabilities. We are continuously managing basic quality by preventing quality problems in advance through the upgrading of quality measurement systems at suppliers. To manage hazardous chemicals in parts, we have included REACH/RoHS 3 supplier obligation clauses in the basic purchase contracts of our suppliers, and we support training and visits to suppliers to improve their management capabilities and establish management processes.

## Product Design

In order to minimize environmental impact from product development, production, use, and disposal, and to ensure customer safety, we review technical regulations and international standards related to

safety and environment around the world, such as fire, noise, vehicle rollover, electromagnetic compatibility, and hazardous chemicals, at the product development stage to establish product development and verification plans. We reflect the guidelines stipulated by major regulations such as Korea's 'Rules on Safety Standards for Construction Machinery', Europe's 'Machinery Directive', and China's 'GB' in our product development goals, and produce products in compliance with local regulations for export. We also share information on global safety regulations and standards trends through the GPCC, a global consultative committee, and discuss proactive response measures. We use components and produce finished products that comply with national chemical regulations, including RoHS, REACH, TSCA, and PFAS, and manage hazardous substances generated in the process. To reduce carbon emissions from the production process, we have established a carbon emission roadmap for our worksites and are implementing renewable energy use and energy saving activities. At the product use stage, we are developing eco-friendly power-oriented products such as fuel-efficient, electrified, and hydrogen-powered products, and to ensure product safety and proper operation and maintenance, we provide safety labels classified into Danger, Warning, and Caution stages according to the severity of the risk, and indicate customer understanding in the manual. Safety labels on construction machinery are produced in compliance with ISO 92441), and the operator's manuals that accompany the products are written in accordance with the guidelines of ISO 67502). We are also enhancing resource efficiency through our engine remanufacturing (Re-man) activity, which sells remanufactured parts utilizing used engine cores and repair parts.

Global Leader in Infrastructure Solutions			
Customer-oriented Quality Management System			
Development Quality	Parts Quality	Manufacturing Quality	Market Quality
<ul style="list-style-type: none"> <li>Advancement of NPD (New Product Development) Process</li> <li>Reinforcement of prior quality verification through Front Loading</li> <li>Fundamental problem solving through DFSS</li> </ul>	<ul style="list-style-type: none"> <li>Parts development in connection with NPD</li> <li>Operation of a program to nurture suppliers with global competitiveness</li> </ul>	<ul style="list-style-type: none"> <li>Securing global-level quality by establishing a global standard system</li> <li>Continuous manufacturing quality improvement through HPS(Hyundai Production System)activities</li> </ul>	<ul style="list-style-type: none"> <li>Lifetime management of quality problems (Occurrence - Improvement - Completion)</li> <li>Improvement of customer perceived quality and service quality</li> <li>Warranty cost savings</li> </ul>

1) ISO 9244: International standard specification for general principles for safety labels on construction equipment

2) ISO 6750: International standard specification for the format (instructions and content) of operating instructions for construction equipment

## Customer Satisfaction

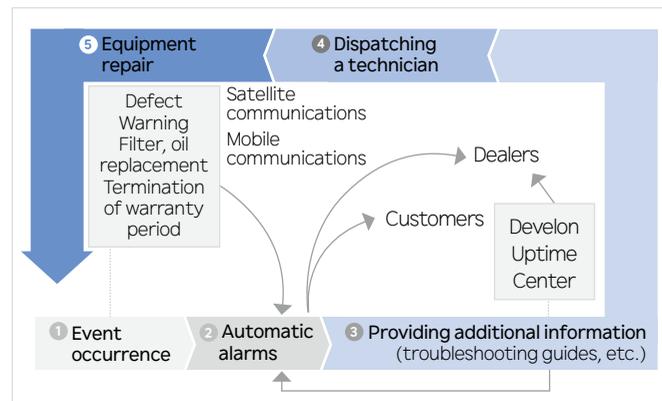
**MY DEVELON** | In April 2024, HD Hyundai Infracore launched MY DEVELON, a global digital integration solution. MY DEVELON is a digital integration service that provides equipment operation information, maintenance application, and e-commerce with a single login, and is available in 14 languages for customers around the world and is available through the website (www.mydevelon.com) and mobile app. MY DEVELON consolidates services that were previously scattered across multiple platforms into one platform, focusing on one-stop solutions, personalized services, and a scalable platform to maximize customer ease of use. Through MY DEVELON, customers can easily check equipment operation information, apply for product consultation or maintenance, and purchase parts, and can also view equipment-related documents online, receive underground fiber protection notifications (Korea only), and use widget services for customer personalization. HD Hyundai Infracore will continue to enhance customer satisfaction by launching various digital products to improve customer work efficiency, including e-commerce functions such as diagnostic tool software and satellite communication subscriptions.

**Develon Uptime Center** | HD Hyundai Infracore operates the DEVELON Uptime Center, a global remote service center. The DEVELON Uptime Center utilizes digital-based service technology to provide customers, agents, and distributors with comprehensive service products including error code analysis, virtual reality (VR) simulator, augmented reality (AR) guidance, CAN BLACK BOX, etc. to help customers improve productivity, and strives to meet customer needs with differentiated services. In 2023, we opened DEVELON Uptime Centers in six countries with a total of 8,000 monitored equipment, and through the operation of DEVELON Uptime Centers, we will continue to enhance remote diagnostics and service support content to strengthen our headquarters-led role in ensuring that our customers can use our equipment safely, satisfactorily, and with confidence. In addition to remote monitoring, HD Hyundai Infracore is also expanding its global customer visit management program, DEVELON Care. As part of DEVELON Care, HD Hyundai Infracore equipment experts will visit major worksites in 20 countries, including Vietnam and South Africa, to enhance brand familiarity and focus on customer support.

**Opening of Parts Distribution Centers (PDC)** | In order to ensure a smooth supply of parts around the world, we operate Parts Distribution Centers (PDCs) in 10 key sales regions, including the United States, United Kingdom, Germany, China, United Arab Emirates, and Singapore, to expand our global parts supply coverage. The PDCs serve as logistics hubs for each region, maximizing the efficiency of our supply chain network in nearby countries while optimizing inventory management and parts delivery to better serve our dealers and customers.

**Smart Maintenance** | Smart Maintenance is a differentiated service solution program that provides customers with proactive maintenance services based on various equipment status and operation information collected through MY DEVELON. Since its launch in 2019, it has been introduced in a total of 18 countries, and we sell regionally customized service solution products based on customer needs in each region. In particular, in 2023, we focused on developing internal content and standardizing guides to enhance service products and provide maintenance support to various countries around the world. In addition, we actively utilize MY DEVELON-based services and provide customized reports using the Develon Uptime Center, which is led by our company, to reflect customer needs in each region.

'MY DEVELON', a global digital integration solution



Develon Uptime Center



**AR Guidance** | HD Hyundai Infracore has completed the global launch of the 'AR Guiders' app, the first in the global industry to utilize augmented reality (AR) technology for the diagnosis and repair of Develon construction machinery equipment, which allows users to intuitively view the condition of the equipment to support diagnosis and repair. AR Guidance is a computer graphics technology that superimposes a virtual image on the reality that the user sees with his or her eyes. AR Guidance is highly useful for remote diagnosis and maintenance of equipment by applying augmented reality technology to 3D modeling data of equipment and information collected from parts sensors to help users visually check and easily understand the status of equipment. In addition, it is possible to check manuals, equipment part locations, etc. by wearing AR devices for new models, and it is planned to expand to various models and regions in the future.

**Diversification of Sales Channel** | HD Hyundai Infracore is diversifying its sales channels for excavators through consumer-oriented sales channels such as gas stations, TV home shopping, and pop-up stores in department stores. As demand is increasing mainly among customers who are planning farms and cottages, we are striving to increase customer convenience by introducing construction machinery in a form familiar to the general public through expanding sales channels, raising awareness of the DEVELON brand and making it easier for customers to purchase products by reducing the hassle of the purchase process.



AR Guidance

**Hyundai Infracore launches online store** | HD Hyundai Infracore has opened the 'DEVELON Online Store' (<https://store.develon-ce.com/kr/>), the first e-commerce platform for excavators in Korea, to exclusively sell the 1.7-ton class DEVELON Mini Electric Excavator (DX20ZE) online. The DEVELON Online Store is a system that enables customers to conveniently purchase excavators online without visiting a dealer, and provides one-stop processing of electronic purchase contracts, online payment of deposits and balances, government subsidy applications, and delivery. In addition, it is possible to apply for installment financing through a capital company, and in addition, it has been implemented to help customers understand products more efficiently by realizing products through a digital showroom. HD Hyundai Infracore plans to strengthen its online sales service by expanding the product lineup on the DEVELON Online Store. Meanwhile, the DEVELON Online Store received good reviews for its concise and intuitive design and usability, and was awarded the 2023 WEB AWARD KOREA Best Shopping Mall, and was also selected for the 2023 GOOD DESIGN KOREA Best Design.

**Capacity building of dealer service channel** | We continue to strengthen our dealer service competency evaluation system and training system to enhance our global customer service capabilities. In 2023, we held the '2023 Asian Dealer Conference' and the 'China Dealer Service Representative Technical Exchange Workshop' to discuss feedback



DEVELON Online Store Homepage

on activities since the launch of DEVELON and strategies to expand excavator/wheel loader sales, and in 2024, we held the '2024 European Dealer Meeting' to explain the future technology roadmap and reward sales performance to motivate performance and strengthen partnerships. In addition, we continue to enhance the expertise of our dealer service personnel by providing online-based training contents for effective service personnel training and active face-to-face support to contribute to enhancing customer value.

**Customer Service Education** | In order to improve the quality of customer service, we implemented DEVELON service response training for employees. To realize customer satisfaction, the training was conducted to enhance the customer service capabilities of DEVELON service representatives and to improve their understanding of customers and site conditions, and was divided into three groups according to the experience of service representatives, and consisted of customer service competency enhancement activities tailored to each group. HD Hyundai Infracore strives to improve the quality of customer service by continuously operating online training courses and group trainings to equip service representatives with service response capabilities along with technical competencies at the point of contact with customers.



2023 Asia Dealer Conference

# Employees

## Human Rights Management

**Human Rights Management Policy** | HD Hyundai Infracore respects the human rights of all stakeholders, including suppliers and employees, and to lay the foundation for a culture of respect for human rights to be established at all workplaces, we have declared the Human Rights Management Declaration and Practices, and support the UN Global Compact's (UNGC) 10 principles on human rights, labor, environment, and anti-corruption, and comply with the International Bill of Human Rights and the declarations of the International Labor Organization (ILO).

**Management of Human Rights Risks** | In order to implement human rights management, we have established and operate a human rights management system consisting of the ESG Committee, ESG Management Committee, Human Rights Management Committee, and a dedicated human rights management organization within the BOD. To handle human rights griev-

### Human Rights Management Implementation System

<b>ESG Committee</b>	<p><b>Operation</b></p> <p>Convocation of the ESG Committee under the BOD twice a year</p>	<p><b>Major role</b></p> <p>Deliberation and approval of major human rights management issues reported</p>
<b>ESG Management Committee</b>	<p>Convocation of the ESG Management Committee, supervised by the CEO, three times a year</p>	<p>Establishment of the Human Rights Management Committee and appointment of the chairperson</p>
<b>Human Rights Management Committee</b>	<p>Regular meetings twice a year (ad hoc meeting if necessary)</p>	<p>Decision-making and performance review on major human rights management issues</p>
<b>Human Rights Management Organization</b>	<ul style="list-style-type: none"> <li>Establishment and implementation of annual human rights promotion plans</li> <li>Human rights education</li> <li>Human rights impact assessment</li> </ul>	

ances, we operate the Help Line of the Human Rights Protection Center for Informants and Victims and receive reports of sexual harassment, verbal and physical violence on the Group Ethics Management Reporting Site, initiate human rights grievance investigations, and handle grievances after confirming the facts.

**Human Rights Impact Assessment** | We conducted human rights impact assessments for employees and stakeholders of business suppliers who are vulnerable to human rights risks to diagnose human rights risks across the company's management and business activities in 2023 dividing the area into two: management and business management. The human rights impact assessment indicators for management were upgraded to reflect the latest trends in human rights management, such as legal changes related to workplace human rights, labor rights, and occupational safety, including prohibitions on workplace harassment and punishment for serious accidents, and ESG and human rights management reporting standards. The human rights impact assessment indicators for business management were developed by identifying stakeholders and human rights risks at each stage of business activities in the primary and supportive activities of the business value chain. Based on the metrics of management and business management, a team of human rights experts conducted a field-based human rights impact assessment, and based on the assessment criteria, we identified matters that need to be improved at our domestic worksites (Bundang, Incheon, and Gunsan). HD Hyundai Infracore will continue to supplement the identified improvements by establishing improvement plans and response strategies. HD Hyundai Infracore will take the lead in protecting the human rights of all stakeholders by identifying risks that may arise and establishing countermeasures through regular human rights impact assessments every year.

Human Rights Risk Diagnosis	Stakeholders				Countermeasures	Target worksites		
	Employees	Suppliers	Customers	Local Communities				
<b>Human Rights Impact Assessment Related to Management</b>					<p><b>Establishment of system</b></p> <ul style="list-style-type: none"> <li>Upgrading the Human Rights Management Declaration, expanding the Scope of human rights impact assessment and conducting human rights impact assessment regularly</li> <li>Upgrading human rights management practices and procedures for remedying human rights violations</li> <li>Establishing a system to prevent human rights violation risks at suppliers</li> <li>Upgrading supply chain management system</li> </ul>	<p><b>Compliance with institutions</b></p> <ul style="list-style-type: none"> <li>Conducting regular survey to prevent human rights violations</li> <li>Establishing and monitoring codes of ethics for overseas suppliers</li> <li>Establishing a system to fulfill the obligation to protect human rights of suppliers</li> <li>Monitoring compliance with human rights protection of suppliers</li> </ul>	<p><b>Internalization activities</b></p> <ul style="list-style-type: none"> <li>Conducting human rights training for employees and external stakeholders</li> <li>Operating internalization programs (distribute guidelines, conduct campaigns, etc.) and conduct satisfaction surveys</li> <li>Regularly conducting training to strengthen the competency of the personal information protection officer</li> </ul>	All worksites
<p>Need to upgrade the overall human rights management system to comply with international norms</p> <p>Need to identify human rights risks across the company's business activities and value chain</p> <p>Not conducting human rights survey targeting internal and external stakeholders including supply chain</p> <p>Not disclosing performance as a result of human rights management</p> <p>Need to upgrade remedy procedures for human rights violations</p> <p>Not requiring suppliers to protect human rights in all business activities</p> <p>Need to strengthen capacity and improve bylaws to protect consumer rights</p> <p>Need to strengthen the prevention and management system for each type of human rights violation for all workers</p> <p>Violation of liberty rights, property rights, etc. in the course of performing security duties</p>	●	●	●	●				
<b>Human Rights Impact Assessment Related to Business Management</b>					<b>Establishment of system and enforcement of implementation</b>			
Improving facility of painting blasting work process	●	●			Improving facility of painting blasting work process	Gunsan worksite		
Installing additional exhaust facilities in the performance test area	●				Installing additional exhaust facilities in the performance test area	Incheon· Gunsan worksites		
Establishment of safety accident prevention measures for manual cleaning operations	●				Providing safety facilities (auto-cleaning facilities)	Gunsan worksite		
Installing additional pipe protection equipment	●	●		●	Installing additional in-process utility piping protection equipment	Incheon· Gunsan worksites		

1) ILO: International Labor Organization

## Human Resources Development

**FC-based Competency Building Training** | HD Hyundai Infracore has established a systematic functional competency (FC) fostering system that considers each individual's inclinations and abilities, and supports employees to establish and execute training plans for their own competency development based on the results of functional competency diagnosis. FC is a competency map that defines the competency items required to successfully perform one's job and enables the establishment of a specific growth vision based on one's level of competency, and we operate an FC-based training and fostering system to support the growth of talents with job expertise.

**System to Foster Technical Staff** | HD Hyundai Infracore operates a system to encourage its technical staff to pursue personal development and have a clear vision.

<b>Position and promotion system</b>	Creating vision for growth of technical staff
<b>Assessment system for technical staff and addition of technical specialist courses</b>	Acknowledging as an Expert or Meister
<b>Improvement of competencies of individual technical staff</b>	Presenting vision for the growth of technical staff Growing them into executives in charge of production sites by organizing field leader track
<b>Addition of technical managing director<sup>1)</sup> and technical specialist<sup>2)</sup> course</b>	Technical expert track: Developing into technical meister
<b>Establishment of FC system</b>	<ul style="list-style-type: none"> <li>Completing the training system to strengthen members' job expertise</li> <li>Prioritizing and developing curriculum based on FC diagnosis results</li> </ul>
<b>Operation of technical staff CA (Change Agent)</b>	Acting as an issue resolution facilitator for the organization

1) Workforce with leadership and hands-on talent, serving as a production team leader within the production executive organization  
 2) Experts in the field and top technical craftsmen with specialized skills and high competitiveness

**In-house Function Academy Operation** | HD Hyundai Infracore operates an in-house job academy to strengthen the fundamental competitiveness of employees based on the job competency development system, and employees can freely take training suitable for their jobs and competencies through the in-house function academy.

### Benefits of In-house Function Academy

- In-house experts designing course and training employees
- Developing new courses and updating existing courses to reflect technology trends every year
- Self-directed learning without time and place restrictions with various smart devices
- Fostering experts who can understand business and analyze, manage, and utilize data according to the direction of digital transformation

### Outcome of In-house Function Academy Operation (professional development framework activities)

2021
Introduced Micro Learning Platform 'CELEB', an online learning platform, to build an infrastructure that allows all employees to learn on mobile without PC environment constraints
Created micro learning contents to foster FC system-based technical experts
2022
Established R&D FC (job competency) system to create synergy among HD Hyundai Construction Equipment Sector and conducted diagnosis (2022~2023)
Expanded the number of in-house instructor candidates and operated 31 courses and 62 sessions of job training
2023
Established and diagnosed R&D FC (job competency) system and FC Level-up Plan (individual/team development plan)
Operated a total of 59 courses and 139 sessions of job training in the construction equipment sector

**Competency Building Program** | HHD Hyundai Infracore has established a program to strengthen the capabilities of technical staff in conjunction with production executives and on-site VOC-based job-specific fostering directions.

### Goals of Technical Job Training System and Indices

271 courses in total to be developed and operated in stages

### Accomplishments of the learning club supporting technique transfer and license acquisition (Cumulative for 2023)

Course offerings and completions **78 courses 582 persons**  
 (43.4% completion out of total technical staff)

Number of master craftsman as of December 2023 **165 persons**

Those who obtained two or more master technicians **19 persons**

Number of master craftsman with all licenses **189 persons**

Award Ceremony of the 7<sup>th</sup> Welding Skills Competition 2023



**Nurturing Global Leaders** | HD Hyundai Infracore has established a human resources development system, with a particular focus on the right balance between leadership and expertise, aimed at fostering “global leaders who can lead the way in organizational changes and innovation”. Individual employees develop their training plans according to their strength and competency levels, and participate in various education programs suited to their growth path. HD Hyundai Infracore offers Junior Group Competency-Strengthening Course and Leader Coaching Program to nurture global leaders. As of 2023, a total of 22 junior groups completed the simulation course, where a group of business juniors experienced business in a realistic business environment.

**Supporting Self-Directed Learning Activities** | HD Hyundai Infracore operates the Community of Employee-Led Learning (CELL) program to support employees to learn voluntarily in the workplace. CELL is a learning team created by employees who are interested in similar topics, and it is a group of self-directed learning activities where employees can not only learn but also have time to enhance their understanding of each other through mutual exchange. In 2023, a total of 370 employees (26.3%) participated in the 10th Community of Employee-Led Learning (CELL), and awards were given to the best CELLS based on the content, sincerity, and on-the-job application of the activities.

Norway subsidiary with seven nationalities



**Diversity · Equity · Inclusion**

**Employee Diversity Protection** | HD Hyundai Infracore is committed to prohibiting discrimination based on gender, religion, disability, and nationality, respecting individual characteristics, and expanding the diversity of its workforce. In December 2023, HD Hyundai Infracore announced that it will increase the proportion of female new hires to 30% by 2030, and established a program to foster female employees and a pregnancy, childbirth, and childcare support system. Through this, we plan to increase the proportion of female employees to enhance our competitiveness by increasing the diversity of our organization. We will continue to embrace differences due to congenital and acquired disabilities and provide support for them to perform their duties smoothly, and we will continue our efforts to establish an organizational culture of diversity and inclusion and to practice social responsibility.

**Fair Evaluation and Reward** | HD Hyundai Infracore applies the Management by Objectives (MBO) system to all employees so that employee performance can lead to evaluation and compensation. After establishing MBO goals for each team’s common and individual tasks every year, we provide specific and clear feedback on each employee’s capabilities and work performance every year based on their performance against the MBO. For organizational leaders (executives and team leaders), we conduct a 360-degree multi-faceted diagnosis to reflect various feedback

from colleagues and team members on their leadership, etc. to ensure fair and reasonable evaluation. Based on the results of these performance evaluations and business performance, we strive to foster employees from a long-term perspective by enhancing compensation such as payment of performance bonuses.

**Gender Equality Policy in Remuneration**

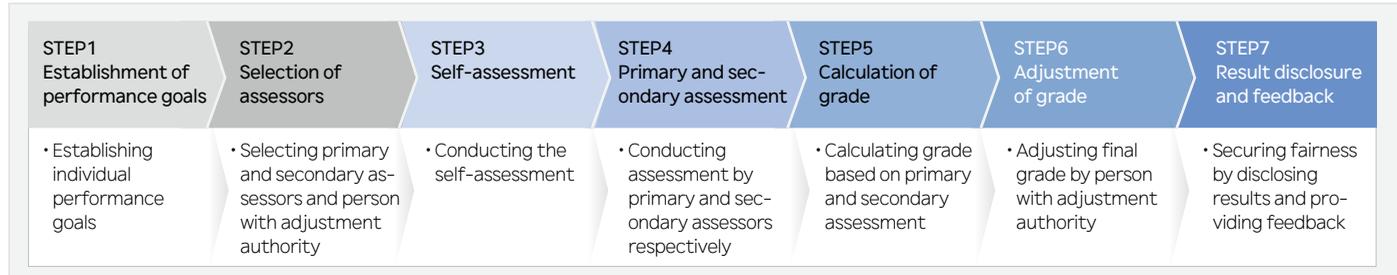
HD Hyundai Infracore has a fair compensation policy that does not differentiate wages based on gender within the same position. In 2023, men and women in charge and managerial positions, which are the jobs with the largest number of employees, were paid at the same level, so there is no difference in compensation based on gender. We will continue to strive to provide an environment where all employees can grow together regardless of gender.

**2023 ratio of average salary of female employees to that of male employees**

Unit: %

Job	Position	Metric	Male	Female
Office worker	Senior manager	Base salary	100	99.3
	level-HL 1	Base salary and reward	100	99.3
	Manager level	Base salary	100	100.2
		Base salary and reward	100	100.3

**Performance Evaluation Process**



## Organizational Culture

**Operating Department-specific CA Channel** | HD Hyundai Infracore operates the Change Agent (CA) channel to create a flexible organizational culture. CAs are employees who are selected as representatives of each organization to lead change and serve as a communication channel between executives and employees on matters that need improvement within the organization, such as organizational culture. HD Hyundai Infracore holds CA workshops at least twice a year to help CAs understand the core roles of CAs in each organization, internalize HD Hyundai's core values, and establish strategies for activities to create a flexible organizational culture, so that CAs can serve as a bridge for organizational culture convergence and synergy creation.

**Open Communication Culture** | We actively communicate with our employees to establish a labor-management culture for mutual coexistence and win-win relationships. As part of this communication, we hold a management meeting every quarter called "CEO CONNECT" where the CEO personally introduces quarterly performance, vision, and strategy to provide an opportunity for employees to ask questions and communicate directly with each other. We also operate online and offline grievance channels, a human rights protection center, a website, and an internal portal to listen to employees' opinions. In addition, we regularly hold quarterly C-level meetings in China and quarterly town hall meetings with all employees in Norway to build a culture of active communication by providing opportunities for employees at global sites to communicate with management in an informal manner.

**Labor-Management Cooperation** | HD Hyundai Infracore

is a multi-union company with four labor unions in three worksites and communicates with them through various meetings, and applies all conditions and regulations to non-unionized employees regardless of whether they are members of a union or not, including working conditions and the application of wage collective agreements. In 2023, we were awarded the Grand Prize in the large company category at the 35th Korea Labor-Management Cooperation Award Ceremony hosted by the Korea Enterprises Federation in recognition of our labor-management cooperation efforts, such as holding sports events involving all four unions to build company-wide unity and consensus. We will continue to move forward to create progressive labor-management relations based on trust and mutual respect between labor and management.

**Strengthening Leadership** | HD Hyundai Infracore is striving to internalize the four newly declared core values of innovation that leads the world, fearless challenge, respect for each other, and safety for all, and to take the initiative to empathize with and lead the change so that the new organizational culture can be well established. We are also working to build a healthy organizational culture through the Leadership Insight System, in which leaders of each team are evaluated by their team members and briefing sessions are held.

**Welfare Benefits** | We operate various welfare programs such as working hours, maternity, childcare, leave, tuition, and housing assistance to help employees balance their personal lives, families, and work. In addition, we are committed to realizing employee-centered welfare by providing statutory family care leave, vacation, reduced working hours, pre- and post-natal leave, and parental leave.

## Organizational Culture Survey

Survey <sup>1)</sup>	Organizational culture survey	Mental health checkup
Survey questions	Value system internalization level	Stress and happiness level
	Change management activities including goal setting	Source of stress and happiness
	Job satisfaction and organizational commitment	Sense of belonging to organization

1) Conducting the survey every year



## Welfare Program

Classification	System	Detail
Working hours	Selective working hour system <sup>2)</sup>	A system that allows employees to set their own work hours outside of core hours (10am-3pm) to improve office productivity and work engagement/efficiency.
	PC-Off system	Limiting the use of PC outside of working hours
Maternity/parenting support	Pregnancy/giving birth congratulations <sup>2)</sup>	KRW 10 million for employees who are pregnant or have given birth to a child
	Special maternity leave <sup>2)</sup>	An additional 30 days of paid leave after pre- and postnatal leave to help employees recover after the birth
	Birth celebration gift	KRW 50,000 worth of newborn items per child upon the birth of a child
	Child care leave <sup>2)</sup>	First 3 months paid, then 3 months unpaid leave for female workers (for children ages 6-8)
Tuition support for children	Guaranteed breastfeeding time	Ensuring female workers get at least 30 minutes of breastfeeding time twice a day for each feeding
	Installation of breastfeeding facilities	Breastfeeding facilities at all domestic worksites
	Operation of company daycare centers	Operating company daycare centers in Bundang, Incheon, and Gunsan HD Hyundai's in-house daycare center 'Dream Boat' was awarded the Grand Prize for Best Management Practice by the Ministry of Employment and Labor
Housing fee support	Early childhood/elementary education expenses	KRW 500,000 per month for early childhood education for children aged 4 to 6, and KRW 50,000 per month for elementary education for children aged 7 to 12
	Support for middle school, high school and university education	Support for middle, high, and university entrance fees, tuition, school operating expenses, fostering dues, and actual enrollment in the first and second semester of university
Healthcare	Funding for housing	Housing funding for eligible homeless/housed employees (up to KRW 100 million with 3% interest)
	Medical expense support	Medical expenses for employees, their spouse, children, and the parents of the employee and their spouse, up to KRW 10 million per year
Support for leave	Comprehensive medical checkup support	Comprehensive medical checkups for employees and their spouses every two years for those aged 35 or older and every year for those aged 40 or older
	Intensive vacation system	Two weeks of self-selected time off centered around the first week of August with one week before and one week after for a total of two weeks and one week at the end of the year
Others	Other welfare benefits	Family program, psychological counseling program, free employee cafeteria, fitness center, commuter bus, car maintenance support, etc.

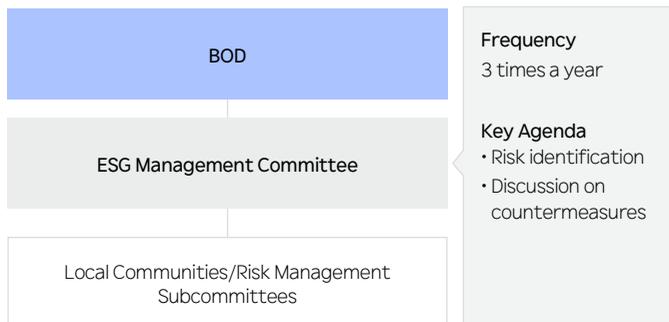
# Integrated Risk

## Risk Management

**Risk Management Governance** | HD Hyundai Infracore assigned the ESG Management Committee under the BOD to conduct risk management activities such as identification of potential risk and discussion on countermeasures. The ESG Management Committee categorizes risk into financial risk, non-financial risk, and potential risk and identifies risk that may affect the company in the mid-to-long-term and prepares countermeasures.

**Risk Management Process** | We have established a risk management process to identify risk factors that may arise in our business activities in advance and respond to the increasingly uncertain business environment preemptively to ensure the safety of our business operation. The risk management process is composed of six phases: setup of risk management basis, risk awareness, risk identification, risk assessment, response to risk and monitoring and reporting at all times is conducted based on an organic reporting system.

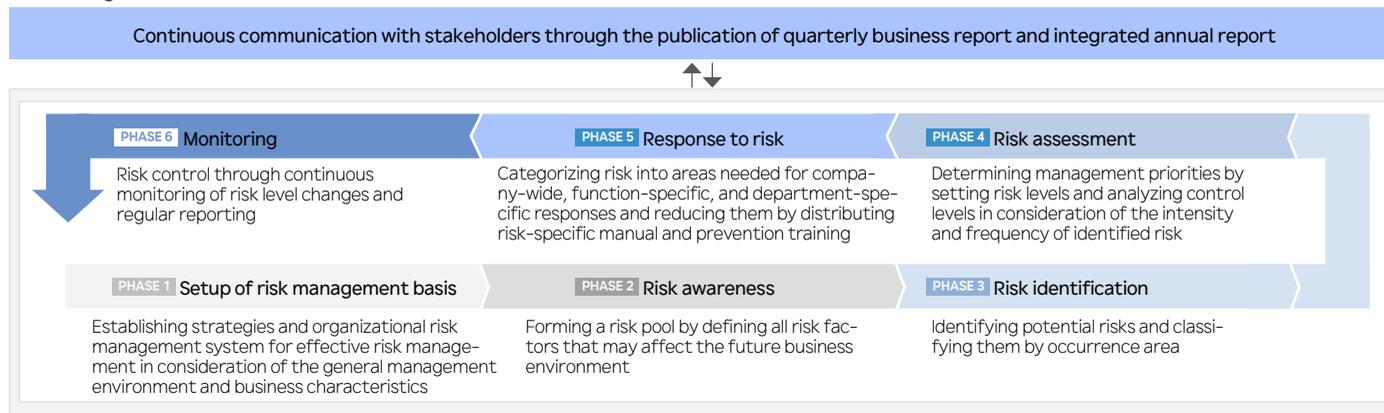
### Risk Management Governance



**Financial Risk** | HD Hyundai Infracore classifies financial risk into four types-market risk, credit risk, liquidity risk, and capital risk-and manages them by type.

Risk Type	Monitoring Target	Details	Response Activities	
Market	Foreign currency	Forward-looking transactions Recognized assets and liabilities Net investment for overseas operations	Reduction of profitability volatility due to exchange rate changes with natural hedge through export and import	
	Interest rate	Floating interest deposits and borrowings	Minimization of external borrowings based on retained fund Reduction of high-interest debt	Improvement of short-and long-term borrowing structure Regular monitoring of interest rate trend
Credit	Contract	Contract for transaction and investment	Credit policy operation Risk assessment of bonds with potential default and reflection of them in the consolidated financial statement	
Liquidity	Debt and operating fund	Failure in financial debt redemption Unable to raise business fund	Establishment of 3-month and annual fund management plans Sales, investment, and financing activities fund balance forecast Securing the required amount of liquidity in advance	
Capital	Capital stock	Maintenance of optimal capital structure	Debt ratio-based capital structure management	
		Capital cost savings	Adjustment of shareholder dividend size Return of capital stock	Issuing new shares and selling assets to reduce debt

### Risk Management Process



**Non-financial Risk** | HD Hyundai Infracore manages non-financial risks by categorizing them into environmental, disaster, supply chain, safety and health, quality, and ethics and compliance, and has established a proactive risk response system centered on prevention.

Risk type	Details	Activities to respond to risk	Risk type	Details	Activities to respond to risk
Environment	Climate change	Establishing an environmental management system, obtaining international certification (ISO14001), protecting endangered species, managing environmental pollutants and disclosing information	Safety ·health	Fire and safety accidents at worksites	Conducting risk factor self-management activities, establishing fire monitoring and response system (disaster prevention center operation), conducting safety training, operating supplier safety management enhancement program
	Biodiversity				
	Environmental emissions and environmental accidents				
Disaster	Natural disasters, social disasters	Establishing natural disasters, social disasters response system and training	Quality	Product quality	Establishing quality control system, managing quality metrics, strengthening supplier quality management
Supply chain	Supplier sustainability	Complying with code of conduct for suppliers, assessing and conducting due diligence of supply chain ESG, training and consulting on supplier ESG	Ethics ·compliance	Complying with laws and regulation	Establishing a code of ethics, operating reporting channels for unethical or compliance violations, conducting audits, and training employees on ethics
				Fair trade	

### Emerging risk

Classification	Data sharing regulation and cybersecurity risk	Safety risk from declining skilled labor force
Overview	As we enter the era of the Fourth Industrial Revolution, the use of data is becoming a catalyst for the development of other industries, and the data economy that creates new products and services is gaining traction. In this context, the EU has pushed for data legislation to promote industrial data sharing, and the resulting EU Data Act, published in February 2022, guarantees fair data access and usage rights for each party - data holders and users. It also provides for the sharing of data access rights to third parties by stipulating a fair distribution of data value, which will be mandatory from 2025.	The decline in population due to the macroeconomic factors of declining birthrate and aging population is affecting individuals, companies, society, and the country at all levels, and the phenomenon of a sharp decline in skilled labor is also appearing due to the shunning of young people from construction sites and the acceleration of the aging of the construction workforce. In addition, the labor force required by legal regulations such as the Occupational Safety and Health Act and the Serious Accident Punishment Act is gradually strengthening, so the labor shortage in the construction industry is expected to intensify in the long term.
Business Impact	In the mid- to long-term, data is expected to be shared with various economic entities, and global market competition is expected to intensify due to future sharing obligations on construction equipment data. In addition, cybersecurity and privacy risks are also increasing due to the possibility of leakage of sensitive technology and personal information due to sharing obligations.	Labor shortage risk and safety risk due to the decrease in skilled labor force will lead to a decline in construction productivity, which is a significant risk factor affecting HD Hyundai Infracore's construction machinery orders. Therefore, considering these phenomena, the company aims to secure alternative future growth engines in the long term through the development of smart construction machinery that can meet the needs of construction sites, which is a demand industry.
Counter-measures	To strengthen service competitiveness, HD Hyundai Infracore has opened 'MY DEVELON', a data integration platform that provides comprehensive service solutions unique to HD Hyundai Infracore. MY DEVELON not only enables maintenance of DEVELON construction equipment, but also enables free access, management, and analysis of operational data, and the analyzed data can be used in various ways to improve productivity, build inventory management systems, and develop systems, contributing to strengthening the competitiveness of digital services. Meanwhile, with the enactment of the Data Act, the personal information protection management system is being strengthened to minimize various privacy and cybersecurity risks that may occur in the process of data sharing, and HD Hyundai Infracore was the first to obtain the ISO27001 international standard certification for information security management system and will continue to strengthen its IT security system.	HD Hyundai Infracore is focusing on autonomous technology that enables autonomous work by integrating AI technology into the existing construction machinery industry to improve the safety of low-skilled workers and the productivity and efficiency of construction sites. To this end, we have attempted to digitally transform the construction industry by equipping equipment with machine guidance (MG), machine control (MC), and transparent buckets, and are also developing autonomous equipment technology necessary for resource development as well as construction and operation of construction sites based on autonomous technology including smart technology and remote control of construction equipment. In addition, in 2023, we introduced an autonomous excavator in Concept-X2, a comprehensive control solution that can automate all tasks at construction sites from terrain surveying to machine operation. Since resource development sites are usually located in geographically and environmentally difficult areas, it is expected that smart autonomous technology will improve productivity at work sites and solve the labor shortage.

**Internal Control** | HD Hyundai Infracore has been operating an internal accounting management system since 2006 by establishing the HD Hyundai Internal Control Assessment System (HICAS), an internal control evaluation system, with the purpose of enhancing the transparency of accounting information and providing reliable information to external stakeholders. The internal accounting management system was established to comply with relevant laws and regulations, including the Act on External Audit of Stock Companies and the Enforcement Decree of the same Act, and an organization dedicated to internal accounting management has been established to ensure that the internal accounting management system is operated appropriately. The internal accounting management organization is a support organization for the Audit Committee, and the Audit Committee has the right to approve the appointment of the head of the support organization to ensure its independence. The Audit Committee evaluates the report on the operation of the internal accounting management system in accordance with the best practices for evaluating and reporting on internal accounting management systems. The CEO of HD Hyundai Infracore annually reviews the operation of the internal accounting control system and reports to the Audit Committee, the BOD, and the General Meeting of Shareholders, and any improvements found during the evaluation process are implemented in consultation with the external auditor, the department in charge, and those performing the controls. The performance of the internal control system is verified annually by a third-party external auditor (accounting firm).

## Information Security

Protecting the information of individuals, including customers and employees, as well as important information assets of a company is an important obligation of a company. HD Hyundai Infracore is responding to information security and cyberterrorism threats through various activities such as strengthening IT security systems, identifying potential risks in advance, and raising employee awareness.

**Information Security Policy** | We have established and operated an information protection policy to identify security-related risks arising from internal and external sources, prevent them in advance, and respond quickly. The information security policy consists of 10 guidelines, including security regulations and personnel security guidelines, and we continuously monitor the latest information protection trends and revise related information protection policies to maintain and improve security levels.

**Operation of Information Security Management System** | HD Hyundai Infracore has appointed a Chief Information Security Officer (CISO) to oversee information protection. Every year, we diagnose IT systems and infrastructure in the form of mock hacking, and establish and improve countermeasures for each type of vulnerability identified to build a system to respond to cybersecurity threats. In 2023, we established a mid- to long-term roadmap and five information security promotion strategies, and plan to reduce the risk of security incidents and strengthen the level of security through the implementation of the strategies.

**Strengthening Personal Information Protection Management System** | HD Hyundai Infracore has appointed the Chief Information Security Officer (CISO) to strengthen the personal information protection management system in 2023 to protect the personal information of employees and customers. We revised the privacy guidelines and processing policy to include all the essentials of the privacy policy required by the relevant laws, reflecting the recent amendments to the law, and established roles and responsibilities related to personal information protection, including personal information management, technology, and security officer, to systematically carry out personal information protection activities. In addition, we established a guide for outsourcing and third-party management and a personal information lifecycle guide in conjunction with it, and carried out management activities such as creating a personal information collection and use agreement, establishing a personal information processing policy, and destroying personal information. In addition, we revised the diagnostic items of the personal information processing system to prevent misuse and leakage of personal information.

### Information Security Implementation Strategies

Upgrading the security level of HD Hyundai Construction Equipment Sector in line with the group security policy
Actively preparing for legal compliance related to national core technology and personal information protection and upgrading the data leakage prevention system
Implementing measures to strengthen the security of overseas subsidiaries and supporting security of business suppliers
Resolving security vulnerabilities continuously and preventing operation technology (OT) security breaches
Maintaining a security risk pre-detection and response system through daily security monitoring

tion, conducted a review of the appropriateness of the management status of obligations defined in measures to secure personal information safety, access records, and access rights, and established a new accident response manual for personal information leakage to prevent unnecessary retention or misuse of personal information and to ensure that it is properly destroyed and managed. [Personal Information Handling Policy](#)

**Information Security Management System (ISO 27001)** | HD Hyundai Infracore conducts information protection management systems, access control and authorization management for IT infrastructure, and on-site security reviews to ensure the safe operation of the information security management system. In May 2024, we obtained the ISO 27001 international standard certification for the Bundang GRC site for the first time, and we are taking improvement measures based on the audit. We plan to maintain the certification and continuously upgrade our information protection system by conducting renewal audits every three years.

**Internalization of Information Security** | In order to strengthen employees' security awareness and share the latest information protection issues, we conduct information protection training and statutory personal information protection training once a year. The

### Major Items for Certification Audit

Inspection of information protection management system	Inspection of recruitment, authorization, access control management and confidentiality pledges/contracts
IT infrastructure operation management	Security check of departments within GRC

information protection training includes work-related information protection contents such as the company's security policy, email security, PC management, and trade secret management. In addition, every quarter, we conduct response drills such as malicious email simulation drills, cyber-attack prevention drills, and secret destruction drills to prevent security incidents by providing separate training to risky behavior personnel based on the results of the simulation drills. In the event of a security incident, employees report to the department head and the information security department in accordance with the response guidelines, and the information security department responds appropriately according to the process for each type of incident.

**Information Security of Suppliers** | In order to prevent security accidents at suppliers, we conclude confidentiality agreements when signing contracts and receive security pledges from suppliers, and in 2023, we will establish a supplier information security guide and post it in the integrated procurement management system to strengthen suppliers' information security awareness.

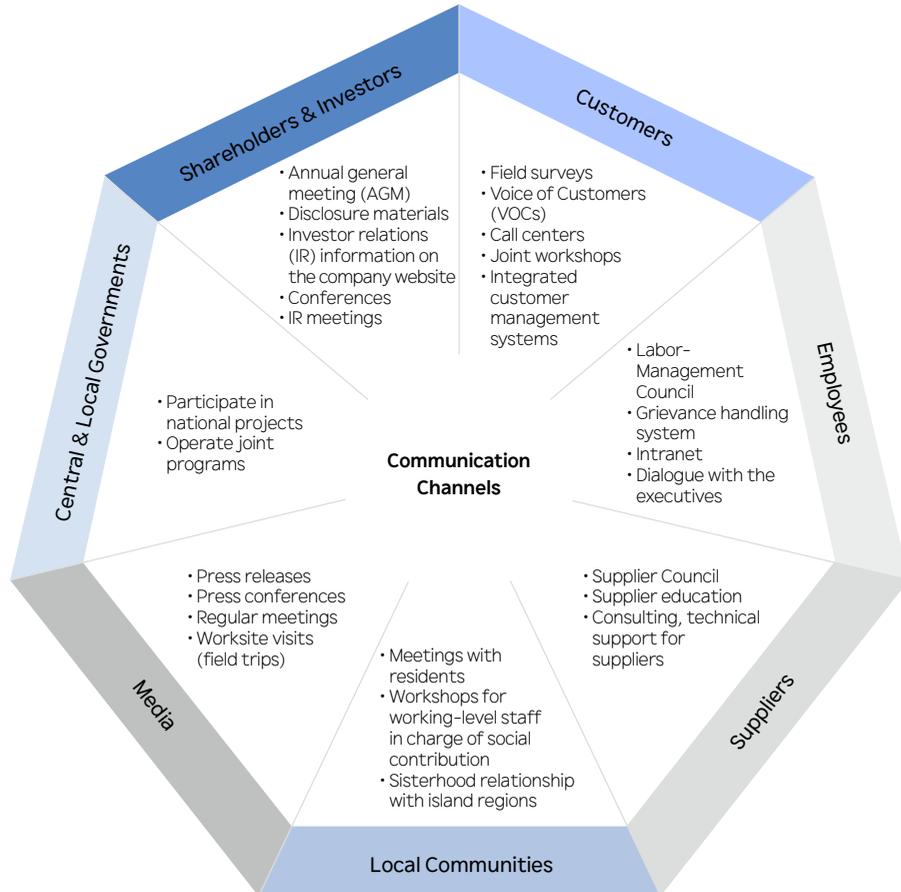
**Investment in Information System** | We are making continuous investment to protect critical information assets from various internal and threats. In 2023, we established security system with which access to internal information system using mobile devices can be made safely and EPS that resolves security vulnerability of PC used for on-site equipment. We will continue to protect important information assets through continuous investment every year, transparently disclose information protection activities and security investment, and strive to ensure that stakeholders can trust our risk management.

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# Stakeholder Engagement



HD Hyundai Infracore operates communication channels with various stakeholders and strives to strengthen open communication. Based on transparent management activities and mutual trust, exchanges are centered on each stakeholder's department, and the collected opinions are actively reviewed and reflected in the sustainability management policy. In addition, we are continuously improving the quantity and quality of information disclosed through the integrated report and website to present transparent and accurate information.

	Key Interests	Major Activities
<b>Shareholders &amp; Investors</b>	<ul style="list-style-type: none"> <li>Profitability and a dividend policy</li> <li>Enhancement of disclosures</li> <li>Sound corporate governance</li> <li>Business opportunity and risk management</li> </ul>	<ul style="list-style-type: none"> <li>Share the company's mid- to long-term business directions</li> <li>Make earnings announcements and provide IR materials</li> <li>Hold analyst meetings</li> </ul>
<b>Customers</b>	<ul style="list-style-type: none"> <li>Prompt customer complaint handling and feedback</li> <li>Improvement of product quality, performance, safety, and convenience</li> <li>Strict customer privacy protection</li> <li>Enhancement of R&amp;D investment and technological capabilities</li> <li>Differentiated customer service</li> <li>Development of eco-friendly and highly efficient products</li> </ul>	<ul style="list-style-type: none"> <li>Product presentation through exhibitions and dealer meetings</li> <li>Tasks aiming for eco-friendly products</li> <li>Incorporate VOCs into products through the New Product Development (NPD) process</li> <li>Improve customers' information accessibility through digital marketing and the development of online platform (MY DEVELON)</li> <li>Increase customer satisfaction through the Happy Call and dealer service training</li> </ul>
<b>Employees</b>	<ul style="list-style-type: none"> <li>Fair evaluation and compensation</li> <li>Education and competence development</li> <li>Work-life balance</li> <li>Positive labor relations</li> <li>Active communication within the company</li> </ul>	<ul style="list-style-type: none"> <li>Human resources development based on the Functional Competency (FC) system</li> <li>Publish a human rights risk prevention manual and provide education on human rights</li> </ul>
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>Expand support to improve suppliers' capabilities through financial, technology, education, environment, and ethical management</li> <li>Share more information with suppliers</li> <li>Strengthen fair trade</li> </ul>	<ul style="list-style-type: none"> <li>Foster Leading Suppliers</li> <li>Financial support for suppliers</li> <li>Operate the Shared Growth Hotline</li> <li>Share ESG Policy, guidelines with suppliers</li> </ul>
<b>Local Communities</b>	<ul style="list-style-type: none"> <li>Eco-friendly products and production processes</li> <li>Improve worksite and surrounding environments, and prevent pollution</li> <li>Establish environmental management system</li> <li>Communicate with local communities</li> <li>Facilitate economic development of local communities</li> </ul>	<ul style="list-style-type: none"> <li>Operate Dream School</li> <li>Conduct CCI activities for local communities</li> </ul>
<b>Central &amp; Local Governments</b>	<ul style="list-style-type: none"> <li>Comply with laws and regulations</li> <li>Public-private partnership</li> </ul>	<ul style="list-style-type: none"> <li>Regulatory monitoring and internal compliance</li> <li>Suggest improvement measures through participation in related organizations' activities</li> <li>Participate in the government's public policy projects</li> </ul>
<b>Media</b>	<ul style="list-style-type: none"> <li>Prompt and accurate information sharing</li> </ul>	<ul style="list-style-type: none"> <li>Issue press releases in a timely manner</li> <li>Press reporters' news coverage</li> <li>Find feature items and provide them to the media</li> </ul>

# GRI Content Index

**Disclosure Entity** | For the period from January 1, 2023 to December 31, 2023, HD Hyundai Infracore has applied the GRI Standards to report on its sustainability management.

GRI Standard	Topic	Item No.	Disclosure Requirements	Page
<b>GRI 2: General Disclosures</b>				
<b>GRI 2: General Disclosures 2021</b>	<b>The organization and its reporting practices</b>	2-1	Organizational details	7, 49
		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	76, 77, 80-88, 90, 92, 93
		2-5	External assurance	95-101
	<b>Activities and workers</b>	2-6	Activities, value chain and other business relationships	7, 43-46 <sup>1)</sup>
		2-7	Employees	88
		2-8	Workers who are not employees	88
	<b>Governance</b>	2-9	Governance structure and composition	47, 48
		2-10	Nomination and selection of the highest governance body	47, 48
		2-11	Chair of the highest governance body	47
		2-12	Role of the highest governance body in overseeing the management of impacts	12, Corporate Governance Report 38
		2-13	Delegation of responsibility for managing impacts	12, Corporate Governance Report 38, Business Report 374
		2-14	Role of the highest governance body in sustainability reporting	21, 47
		2-15	Conflicts of interest	12, 47
		2-16	Communication of critical concerns	47, Business Report 374
		2-17	Collective knowledge of the highest governance body	47, Corporate Governance Report 57
		2-18	Evaluation of the performance of the highest governance body	48
		2-19	Remuneration policies	48, 77, Business Report 390

GRI Standard	Topic	Item No.	Disclosure Requirements	Page
<b>GRI 2: General Disclosures 2021</b>	<b>Governance</b>	2-20	Process to determine remuneration	48, Business Report 390-392
		2-21	Annual total compensation ratio	77
	<b>Strategy, policies and practices</b>	2-22	Statement on sustainable development strategy	4-5
		2-23	Policy commitments	21, 37, 43, 47, 50, 53, 58, 61, 70
		2-24	Embedding policy commitments	23, 40, 45, 48, 54, 58, 60, 63, 67, 70
		2-25	Processes to remediate negative impacts	50, 64, 68, 69, 72
		2-26	Mechanisms for seeking advice and raising concerns	45, 64, 67
		2-27	Compliance with laws and regulations	78, Business Report 409
		2-28	Membership associations	79
		2-29	Approach to stakeholder engagement	72
		2-30	Collective bargaining agreements	67, 91
<b>GRI 3: Material Topics</b>				
<b>GRI 3: Material topics 2021</b>	<b>Disclosures on material topics</b>	3-1	Guidance to determine material topics	15
		3-2	Disclosures on material topics	16
		3-3	Management of material topics	17, 21-50
<b>Response to climate change</b>				
<b>GRI3: Material topics 2021</b>	<b>Disclosures on material topics</b>	3-3	Management of material topics	21-29
<b>GRI 302: Energy 2016</b>	<b>Energy</b>	302-1	Energy consumption within the organization	28, 29, 80
		302-3	Energy intensity	28, 29, 80
		302-4	Reduction of energy consumption	28, 29, 80

1) There has been no changes in the business area/ value chain and other business relations for the prior reporting period.

GRI Standard	Topic	Item No.	Disclosure Requirements	Page
<b>Development of eco-friendly technologies and products</b>				
GRI 3: Material Topics 2021	Disclosures on material topics	3-3	Management of material topics	30-36
GRI 305: Emissions 2016	Emissions	305-1	Direct (Scope 1) GHG emissions	83
		305-2	Energy indirect (Scope 2) GHG emissions	83
GRI 305: Emissions 2016	Emissions	305-3	Other indirect (Scope 3) emissions	83
		305-4	GHG emissions intensity	83
		305-5	Reduction of GHG emissions	83
		305-6	Emissions of ozone-depleting substances (ODS) <sup>1)</sup>	-
		305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	84
<b>GHG and energy management</b>				
GRI 3: Material Topics 2021	Disclosures on material topics	3-3	Management of material topics	37-42
GRI 403: Occupational Health and Safety 2018	Safety and health	403-1	Occupational health and safety management system	37-38
		403-2	Hazard identification, risk assessment, and incident investigation	38-39
		403-3	Occupational health services	40
		403-4	Worker participation, consultation, and communication on occupational health and safety	37-41
		403-5	Worker training on occupational health and safety	39, 86
		403-6	Promotion of worker health	40
		403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	39
		403-8	Workers covered by an occupational health and safety management system	37, 86

GRI Standard	Topic	Item No.	Disclosure Requirements	Page
GRI 403: Occupational Health and Safety 2018	Safety and health	403-9	Work-related injuries	86
		403-10	Work-related ill health	86
<b>Supply chain ESG</b>				
GRI 3: Material Topics 2021	Disclosures on material topics	3-3	Management of material topics	43-46
GRI 308: Supplier Environmental Assessment	Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria	87
		308-2	Negative environmental impacts in the supply chain and actions taken	43-46, 87
GRI 414: Supplier Social Assessment 2016	Supplier Social Assessment	414-1	New suppliers that were screened using social criteria	87
		414-2	Negative social impacts in the supply chain and actions taken	43-46, 87
GRI 206: Anti-competitive Behavior 2016	Anti-competitive Behavior	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	78, Business Report 409
<b>Securing soundness and independence of governance</b>				
GRI 3: Material Topics 2021	Disclosures on material topics	3-3	Management of material topics	47-50
GRI 205: Anti-Corruption 2016	Anti-Corruption	205-1	Operations assessed for risks related to corruption	50, 78
		205-2	Communication and training about anti-corruption policies and procedures	50, 78
		205-3	Confirmed incidents of corruption and actions taken	78

1) 305-6 emissions of ozone-depleting substances are not disclosed as “we do not deal with ozone-depleting substances in our business activities.” (Reason for non-disclosure: N/A)

# SASB Index

Topic	Type	Code	Accounting Metrics	page
Energy management	Quantitative	2-1	(1) Total energy consumed (GJ)	80
		2-2	(2) Percentage grid electricity	80
		2-3	(3) Percentage renewable energy	80
Employee health and safety	Quantitative	2-4	(1) Total recordable incident rate (TRIR)	86
		2-5	(2) Fatality rate	86
		2-6	(3) Near miss frequency rate (NMFR)	-
Fuel Economy & Emissions in Use-phase	Quantitative	2-7	Sales-weighted fleet fuel efficiency for medium- and heavy-duty vehicles	28
		2-8	Sales-weighted fuel efficiency for non-road equipment	28
	Quantitative	2-9	Sales-weighted fuel efficiency for stationary generators	-
		RT-IG-410A.4	(a) Sales-weighted emissions of nitrogen oxides (NOx) and particulate matter (PM) for marine diesel engines	-
			(b) Sales-weighted emissions of nitrogen oxides (NOx) and particulate matter (PM) for locomotive diesel engines	-
			(c) Sales-weighted emissions of nitrogen oxides (NOx) and particulate matter (PM) for on-road medium- and heavy-duty engines	-
			(d) Sales-weighted emissions of nitrogen oxides (NOx) and particulate matter (PM) for other non-road diesel engines	-
Material sourcing	Qualitative	RT-IG-440A.1	Description of the management of risks associated with the use of critical materials	43
Remanufacturing design and services	Quantitative	RT-IG-440B.1	Revenue from remanufactured products and remanufacturing services	80
Activity Metric	Quantitative	RT-IG-000.A	Number of units produced by product category	Business Report 29
			(1) Vehicles and agricultural and construction equipment	
			(2) Engines and power generation equipment	
	Quantitative	RT-IG-000.B	Number of employees	88

# KSSB Content Index

Material issue	Governance	Strategy	Risk management	Metrics and Targets
Climate change	21	23~28	22	17,29
Innovation	30	31~36	68-69	17
Safety and health	37	37~42	68-69	17
Supply chain	43	43~46	68-69	17
Governance	47	48~50	68-69	14

# ESG Databook

## Economic Data

### Operating performance

Classification	Unit	Scope	2020	2021	2022	2023
Sales	KRW 1 million	Consolidated	3,988,104	4,593,665	4,756,114	<b>4,659,605</b>
Operating income			264,445	264,508	332,547	<b>418,264</b>
Net income			285,074	567,836	229,551	<b>230,712</b>
Sales		Separate	2,712,338	3,618,065	4,204,908	<b>4,241,475</b>
Operating income			89,362	190,710	282,247	<b>392,027</b>
Net income (loss) <sup>1)</sup>			(37,858)	294,341	207,607	<b>458,768</b>

1) 2021 data correction due to error

### Financial soundness

Classification	Unit	Scope	2020	2021	2022	2023
Total assets	KRW 1 million	Consolidated	12,026,887	4,782,290	4,736,668	<b>4,418,426</b>
Total liabilities			7,537,888	3,412,466	3,101,627	<b>2,605,110</b>
Total equity			4,488,999	1,369,824	1,635,041	<b>1,813,316</b>
Total assets		Separate	5,180,809	3,503,272	3,731,594	<b>3,855,346</b>
Total liabilities			3,679,161	2,412,266	2,378,226	<b>2,103,551</b>
Total equity			1,501,648	1,091,006	1,353,368	<b>1,751,795</b>

### Research & Development

Classification	Unit	Scope	2020	2021	2022	2023
R&D personnel	Persons	Korea	749	750	721	<b>663</b>
R&D investment	KRW 1 million		136,231	135,642	161,190	<b>184,277</b>
R&D investment to sales			Percentage (%)	5.02	3.74	3.82

### Intellectual property rights

Classification	Unit	Scope	2020	2021	2022	2023
Application	Cases	Global	4,285	2,763	2,441	<b>2,563</b>
Registration			3,224	1,955	1,758	<b>1,798</b>

### Retirement pension plan

Classification	Unit	Scope	2020	2021	2022	2023
No. of subscribers (DB)	Persons	Korea	-	2,688	2,034	<b>2,019</b>
Managed amount (DB) <sup>1)</sup>	KRW 1 million		-	215,107	155,285	<b>165,999</b>
No. of subscribers (DC)			Persons	-	4	526
Managed amount (DC) <sup>2)</sup>	KRW 1 million		-	22	56,004	<b>3,849</b>

1) 2021, 2022 data correction due to changes in the aggregation scope of managed amount (DB)

2) 2022 data correction due to error

### Employee stock ownership

Classification	Unit	Scope	2020	2021	2022	2023
Share of employees holding stocks <sup>1)</sup> (ESOP or ESPP)	Percentage (%)	Korea	0	63	41	<b>11</b>

1) Employee Stock Ownership Plan (ESOP) is operated for all employees (including contract workers).

### Quality management

Classification	Unit	Scope	2020	2021	2022	2023
No. of ISO 9001 certified worksites	No.	Global	7	7	7	<b>7</b>

### Return on human capital investment

Classification	Unit	Scope	2020	2021	2022	2023
Return on human capital investment	Times	Korea	1.33	1.64	1.93	<b>2.29</b>

## Governance Data

### BOD

Classification	Unit	Scope	2020	2021	2022	2023
BOD participation rate	Percentage (%)	Korea	97	94	100	<b>100</b>
Ratio of female directors			0	0	0	<b>20</b>
Average term of directors	Years		3.8	3.8	3.3	<b>2.5</b>

### Management-employee remuneration

Classification	Unit	Scope	2020	2021	2022	2023
Average CEO remuneration	KRW 1 million	Korea	581	1,815	913	<b>798</b>
CEO-employee remuneration ratio <sup>1)</sup>	Times		6.8	19.1	9.9	<b>8.3</b>

1) 2022 data correction with modification of employee average salary

### Ratio of stocks held by the management

Classification	Unit	Scope	2020	2021	2022	2023
No. of stocks held by CEO (compared to CEO remuneration)	Percentage (%)	Korea	-	-	-	<b>0.0</b>
No. of stocks held by executives except for CEO (compared to executive salary except for CEO)			-	-	-	<b>0.0</b>

## Ethical management

Classification	Unit	Scope	2020	2021	2022	2023
No. of worksites audited for ethical standards	No.	Global	-	2	1	4
Ratio of worksites audited for ethical standards <sup>1)</sup>	Percentage (%)		-	13	6	21
No. of people who completed ethical management training	Persons		-	-	1,492	1,397
Ratio of people who completed ethical management training <sup>2)</sup>	Percentage (%)		-	-	52	50
No. of executives and employees who were informed of the anti-corruption policies (Code of Ethics)	Persons	Korea	-	-	-	1,435
Ratio of executives and employees who were informed of the anti-corruption policies (Code of Ethics)	Percentage (%)		-	-	-	96
No. of partner companies which were informed of the anti-corruption policies (Code of Ethics)	No.		-	-	345	317
Ratio of partner companies which were informed of the anti-corruption policies (Code of Ethics)	Percentage (%)		-	-	89	100
No. of code of conduct violation <sup>3)</sup>	Cases		0	1	2	4
No. of disciplinary actions due to violation of HD Hyundai Group's anti-corruption policy			0	4	4	4
No. of corruption cases in which contracts of partner companies were terminated or not renewed			0	0	0	0
No. of people subject to disciplinary actions due to violation of internal ethical management policy	Persons		18	9	10	11
No. of people subject to disciplinary action due to violation			11	5	8	8
No. of people subject to warning or less severe actions due to violation			7	4	2	3

1) The audit scope is all global worksites.

2) For domestic executives and employees, expatriates working overseas

3) Including corruption/bribery, discrimination/harassment, conflicts of interest, and money laundering/insider trading

## Compliance management

Classification	Unit	Scope	2020	2021	2022	2023
No. of times of compliance training	Cases	Korea	2	4	4	14
No. of employees who participated in compliance training	Persons		882	914	1,008	1,722
No. of cases of legal advice related to fair trade	Cases		0	54	59	56
No. of cases of legal advice related to anti-bribery and economic sanctions			0	9	2	26

## Violation of major laws related to environment/society<sup>1)</sup>

Classification	Unit	Scope	2020	2021	2022	2023
By law and regulation	Cases	Global	0	0	0	0
No. of cases of violation of environmental laws <sup>2)</sup>	Cases	Global	0	0	0	0
No. of cases of violation of fair trade laws		Korea	0	0	0	0
No. of cases of violation of Improper Solicitation and Graft Act			0	0	0	0
Others			0	0	0	0
By sanction	Cases	Global	0	0	0	0
Monetary sanctions <sup>2)</sup>	Cases	Korea	0	0	0	0
Non-monetary sanctions			0	0	0	0
Fines due to violating environmental laws <sup>2)</sup>	KRW 100 million	Global	0	0	0	0

1) No. of major violations

2) Monetary sanctions worth USD 10,000 or more

### Policy-related expenditures

Classification	Unit	Scope	2020	2021	2022	2023
Total political donation <sup>1)</sup>	KRW	Korea	0	0	0	0
Total contribution to associations	1 million		2,244	1,055	1,097	1,125

1) We strictly comply with Article 31 (Restrictions on Contributions) of the Political Funds Act, which prohibits political contributions by legal entities or organizations, and not providing political funds, election funds, or funds for lobbying of specific political groups and parties that directly influence policy formation. In addition, we do not join/act in any associations that are contrary to the Paris Agreement, and there were no climate-related lobbying activities by associations in 2023.

### Top 5 expenditure to associations

Classification	Unit	Scope	2020	2021	2022	2023
Korea Foundation for Cooperation of Large & Small Business, Rural Affairs	KRW 1 million	Korea	1,400	400	400	420
Korea Construction Equipment Manufactures Association			257	243	222	233
Korea Enterprises Federation			270	103	106	107
Incheon Chamber of Commerce & Industry			80	80	80	106
Gunsan Chamber of Commerce & Industry			51	47	47	47

## Environmental Data

### Investment in environment

Classification	Unit	Scope	2020	2021	2022	2023
Environmental investment and operation cost	KRW 100 million	Korea	132	71	109	307
Eco-friendly technology development cost	KRW 100 million	Korea	-	-	131	261
Eco-friendly (electrification, engine fuel efficiency)	KRW 100 million	Korea	-	-	-	80
Smart (automated, unmanned)			-	-	-	54
Fuel efficiency (performance, reduction of air pollutants)			-	-	-	127
Eco-friendly sales amount		Global	-	3,980	15,637	13,569
Eco-friendly sales ratio	Percentage (%)		-	9	33	29
Percentage of EV vehicles		Korea	-	-	1.0	3.4
Eco-friendly procurement amount	KRW 1 million		-	-	2	2
Eco-friendly procurement ratio	Percentage (%)		-	-	0.01	0.01

### Environmental management

Classification	Unit	Scope	2020	2021	2022	2023
Worksites with ISO 14001 (EMS) certification	No.	Global	5	5	5	5
Ratio of Worksites with ISO 14001 (EMS) certification <sup>1)</sup>	Percentage (%)		83	83	71	71

1) Worksites in Korea, overseas production sites

## Energy

Classification	Unit	Scope	2020	2021	2022	2023
Total energy consumption <sup>1)</sup>	TJ	Korea	1,728	2,039	2,041	<b>1,832</b>
Energy use intensity	TJ/KRW 1 million		0.0006	0.0006	0.0005	<b>0.0004</b>
Energy savings <sup>2)</sup>	TJ	Korea	44	4	1	<b>8</b>
Reduction in energy cost <sup>3)</sup>	KRW 1 million		368	21	48	<b>147</b>
General energy						
Direct energy (fuel) consumption	TJ	Korea	363	426	417	<b>407</b>
Indirect energy consumption			1,365	1,613	1,624	<b>1,425</b>
Renewable energy						
Renewable energy consumption	TJ	Korea	0	0	0	<b>10</b>
Total energy consumption <sup>4)</sup>	TJ	Overseas	16	20	21	<b>164</b>
General energy						
Direct energy (fuel) consumption	TJ	Overseas	9	11	12	<b>66</b>
Indirect energy consumption			7	8	9	<b>99</b>
Renewable energy consumption	TJ	Overseas	0	0	0	<b>0</b>

1) 2020~2022 data correction due to error

2) For Incheon and Gusan worksites, based on Energy Consumption Report

3) Based on Energy Consumption Report

4) Worksites in Korea and overseas production subsidiaries

## Non-renewable material

Classification	Unit	Scope	2020	2021	2022	2023
Scrap metal	ton	Korea	23,560	27,362	27,492	<b>21,591</b>
Scrap metal intensity	ton/KRW 1 million		0.009	0.008	0.007	<b>0.005</b>

## Renewable material

Classification	Unit	Scope	2020	2021	2022	2023
Sand	ton	Korea	17,284	15,691	14,958	<b>12,927</b>
Sand intensity	ton/KRW 1 million	Korea	0.006	0.004	0.004	<b>0.003</b>
Ratio of renewable material input	Percentage (%)		-	-	-	<b>70</b>

## Remanufacturing

Classification	Unit	Scope	2020	2021	2022	2023
Sales of remanufactured parts	KRW 100 million	Korea	6.5	5.2	5.5	<b>8.5</b>

### Water intake

Classification	Unit	Scope	2020	2021	2022	2023
Total water intake	ton	Korea	490,820	546,749	533,742	<b>502,520</b>
By type						
Saline/sea water	ton	Incheon	0	0	0	<b>0</b>
Rainwater			339	3	210	<b>361</b>
Groundwater			0	0	0	<b>0</b>
Water supply (industrial water +domestic water)			431,181	477,204	468,657	<b>429,111</b>
Reused water <sup>1)</sup>			0	0	0	<b>0</b>
By type						
Saline/sea water	ton	Gunsan	0	0	0	<b>0</b>
Rainwater			0	0	0	<b>0</b>
Groundwater			0	0	0	<b>0</b>
Water supply (industrial water +domestic water)			49,818	55,276	48,660	<b>57,151</b>
Reused water <sup>1)</sup>			0	0	0	<b>0</b>
By type						
Saline/sea water	ton	Ansan	0	0	0	<b>0</b>
Rainwater			0	0	0	<b>0</b>
Groundwater			0	0	0	<b>0</b>
Water supply (industrial water +domestic water)			7,959	8,576	9,331	<b>10,354</b>
By type						
Groundwater	ton	Boryeong	1,524	5,690	6,884	<b>5,543</b>
Water supply (industrial water +domestic water)			0	0	0	<b>0</b>

Classification	Unit	Scope	2020	2021	2022	2023
Total water intake	ton	Overseas	91,120	62,695	64,378	<b>61,731</b>
By type						
Saline/sea water	ton	Overseas	0	0	0	<b>0</b>
Rainwater			0	0	0	<b>0</b>
Groundwater			0	0	0	<b>0</b>
Water supply (industrial water +domestic water)			91,120	62,695	64,378	<b>61,731</b>
Reused water <sup>1)</sup>			0	0	0	<b>0</b>

1) Reused water supplied from other organization

### Water discharge

Classification	Unit	Scope	2020	2021	2022	2023
Total water discharge <sup>1)</sup>	ton	Korea	82,097	77,792	53,288	<b>61,223</b>
Emissions of effluents			82,097	77,792	53,288	<b>61,223</b>
Effluents intensity	ton/ KRW 1 million		0.030	0.022	0.013	<b>0.015</b>
Total water discharge <sup>1)</sup>	ton	Overseas	85,144	57,808	59,155	<b>56,493</b>

1) 2020~2022 data correction due to changes in water discharge amount calculation standards

## Water consumption

Classification	Unit	Scope	2020	2021	2022	2023
Water consumption <sup>1)</sup>	ton	Korea	408,723	468,957	480,454	<b>441,297</b>
Water consumption intensity	ton/KRW 1 million		0.151	0.130	0.114	<b>0.104</b>
By type						
Saline/sea water	ton	Incheon	0	0	0	<b>0</b>
Rainwater			339	3	210	<b>361</b>
Groundwater			0	0	0	<b>0</b>
Water supply (industrial water +domestic water) <sup>1)</sup>			355,635	406,893	422,762	<b>376,623</b>
Reused water <sup>2)</sup>	ton	Incheon	0	0	0	<b>0</b>
By type						
Saline/sea water	ton	Gunsan	0	0	0	<b>0</b>
Rainwater			0	0	0	<b>0</b>
Groundwater			0	0	0	<b>0</b>
Water supply (industrial water +domestic water) <sup>1)</sup>			43,267	47,795	41,267	<b>48,416</b>
Reused water <sup>2)</sup>			0	0	0	<b>0</b>
By type						
Saline/sea water	ton	Ansan	0	0	0	<b>0</b>
Rainwater			0	0	0	<b>0</b>
Groundwater			0	0	0	<b>0</b>
Water supply (industrial water +domestic water) <sup>1)</sup>			7,959	8,576	9,331	<b>10,354</b>
Reused water <sup>2)</sup>			0	0	0	<b>0</b>

Classification	Unit	Scope	2020	2021	2022	2023
By type						
Groundwater	ton	Boryeong	1,524	5,690	6,884	<b>5,543</b>
Water supply (industrial water +domestic water)			0	0	0	<b>0</b>
Total water consumption	ton	Overseas	5,976	5,158	5,223	<b>5,238</b>
By type						
Surface water	ton	Overseas	0	0	0	<b>0</b>
Ground water			0	0	0	<b>0</b>
Sea water			0	0	0	<b>0</b>
Produced water			0	0	0	<b>0</b>
Water supply (industrial water +domestic water)			5,976	5,158	5,223	<b>5,238</b>

1) 2020~2022 data correction due to changes in water consumption amount calculation standards

2) Reused water supplied from other organization

## Reuse of water

Classification	Unit	Scope	2020	2021	2022	2023
Reused and recycled water	ton	Korea	53,195	64,317	46,012	<b>65,790</b>
Wastewater recycling	ton	Korea	-	-	-	<b>61,770</b>
Rainwater			-	-	-	<b>360</b>
Wastewater reclamation and reusing			-	-	-	<b>3,660</b>

## GHG emissions

Classification	Unit	Scope	2020	2021	2022	2023
Total (Scope 1&2)	tonCO <sub>2</sub> eq	Korea	90,447	105,016	104,268	<b>94,479</b>
Intensity (Scope 1&2)	tonCO <sub>2</sub> eq /KRW 1 million		0.033	0.029	0.025	<b>0.022</b>
Scope 1	tonCO <sub>2</sub> eq		23,961	27,834	26,552	<b>26,304</b>
Scope 1 intensity	tonCO <sub>2</sub> eq /KRW 1 million		0.009	0.008	0.006	<b>0.006</b>
Scope 2 (location-based)	tonCO <sub>2</sub> eq		66,486	77,184	77,718	<b>68,175</b>
Scope 2 intensity	tonCO <sub>2</sub> eq /KRW 1 million		0.025	0.021	0.018	<b>0.016</b>
Total (Scope 1&2)	tonCO <sub>2</sub> eq	Overseas	33,442	26,640	16,063	<b>10,265</b>
Scope 1	tonCO <sub>2</sub> eq	Overseas	9,044	7,759	5,221	<b>3,568</b>
Scope 1 emissions	tonCO <sub>2</sub> eq	China	9,044	7,617	5,001	<b>3,279</b>
Scope 1 emissions		Norway	-	142	220	<b>289</b>
Scope 2 (location-based)		Overseas	24,398	18,880	10,842	<b>6,698</b>
Scope 2 emissions	tonCO <sub>2</sub> eq	China	24,398	18,819	10,768	<b>6,647</b>
Scope 2 emissions		Norway	-	62	74	<b>51</b>
Scope 3 <sup>1)2)</sup>	tonCO <sub>2</sub> eq	Korea	1,051,369	1,010,170	977,905	<b>7,133,549</b>
① Purchased goods and services	tonCO <sub>2</sub> eq	Korea	4,766	5,913	8,415	<b>51,415</b>
② Capital goods			-	-	1,983	<b>630</b>
③ Fuel and energy-related activities			10,225	15,197	12,243	<b>10,023</b>
④ Upstream transportation and distribution			-	-	35,275	<b>146,652</b>
⑤ Waste discharge generated in operations			710	824	592	<b>1,243</b>
⑥ Business travel			505	3,523	1,557	<b>1,132</b>
⑦ Employee commuting			7,193	6,829	7,539	<b>1,070</b>

Classification	Unit	Scope	2020	2021	2022	2023
④ Downstream transportation and distribution	tonCO <sub>2</sub> eq	Korea	-	-	313	<b>798</b>
⑩ Use of sold goods			1,027,969	977,855	909,988	<b>6,917,978</b>
⑪ End of life treatment of sold products			-	-	-	<b>2,598</b>
⑫ Investments			-	-	-	<b>11</b>

1) Estimation and disclosure of categories related to corporate management activities as of 2023

2) Internal calculation criteria by Scope 3 emissions category

- ① Purchased goods and services: Based on energy consumption of suppliers that are included in top 50% in terms of procurement amount
- ② Capital goods: Based on purchase of office supplies
- ③ Fuel and energy-related activities: Based on energy consumed in domestic worksites
- ④ Upstream transportation and distribution: Based on marine/land transportation of products (company cost)
- ⑤ Waste generated in operations: Based on waste discharge from domestic worksites
- ⑥ Business travel: Based on the use of flight and hotels upon business travel
- ⑦ Employee commuting: Based on operation of commuting bus at domestic worksites
- ⑧ Downstream transportation and distribution: Based on marine/land transportation of products (external cost)
- ⑩ Use of sold goods: Based on emissions that reflect the durability of the products sold (until 2022, current year emissions are calculated based on sales volume)
- ⑪ End of life treatment of sold products: Based on emissions related to disposal of products sold (domestic)
- ⑫ Investments: Based on energy consumption by affiliated companies

## Discharge of water pollutants

Classification	Unit	Scope	2020	2021	2022	2023
BOD (Biochemical Oxygen Demand) <sup>1)</sup>	ton	Korea	0.45	1.61	0.68	<b>0.79</b>
TOC (Total Organic Carbon) <sup>1)</sup>			1.02	2.08	0.53	<b>0.98</b>
Suspended solids <sup>1)</sup>			0.08	0.67	0.05	<b>0.31</b>
Suspended solids <sup>1)</sup>		China	0.78	0.64	0.76	<b>2.33</b>
COD (Chemical Oxygen Demand) <sup>1)</sup>			1.81	1.96	1.37	<b>1.53</b>

1) 2020 ~ 2022 data correction due to changes in unit

### Emissions of air pollutants

Classification	Unit	Scope	2020	2021	2022	2023
NOx <sup>1)</sup>	ton	Korea <sup>2)</sup>	4.29	4.78	6.66	<b>12.99</b>
SOx <sup>1)</sup>			0.05	0.10	0.46	<b>1.32</b>
VOCs <sup>1)</sup>			10	14	11	<b>18</b>
Dust <sup>1)</sup>			11	14	21	<b>17</b>
Dust intensity <sup>1)</sup>	ton/ KRW 1 million		0.000004	0.000004	0.000005	<b>0.000004</b>
VOCs <sup>1)</sup>	ton	China	7.74	7.07	3.33	<b>1.37</b>
Dust <sup>1)</sup>			2.43	2.78	1.07	<b>2.22</b>

1) 2020 ~ 2022 data correction due to changes in unit

2) For Incheon and Gunsan worksites

### Waste generation

Classification	Unit	Scope	2020	2021	2022	2023
Total waste generation <sup>1)</sup>	ton	Korea	28,057	31,418	30,289	<b>24,379</b>
By waste type						
Non-hazardous waste <sup>1)</sup>	ton	Korea	24,383	28,793	27,803	<b>22,090</b>
Hazardous waste			3,674	2,626	2,487	<b>2,288</b>
Waste intensity						
Non-hazardous waste intensity	ton/ KRW 1 million	Korea	0.009	0.008	0.007	<b>0.005</b>
Hazardous waste intensity			0.0014	0.0007	0.0006	<b>0.0005</b>
Total waste generation	ton	Overseas	5,155	4,825	4,905	<b>4,142</b>
By waste type						
Non-hazardous waste	ton	Overseas	4,368	4,083	4,375	<b>3,680</b>
Hazardous waste			787	742	530	<b>462</b>

1) 2020 ~ 2022 data correction due to changes in unit

### Waste discharge

Classification	Unit	Scope	2020	2021	2022	2023
Total waste treatment <sup>1)</sup>	ton	Korea	28,057	31,418	30,289	<b>24,379</b>
Waste landfilled	ton	Korea	36	46	42	<b>48</b>
Waste incinerated			1,397	1,621	492	<b>545</b>
Waste incinerated with energy recovery			0	0	0	<b>0</b>
Waste incinerated without energy recovery			1,397	1,621	492	<b>545</b>
Waste recycling rate	Percentage (%)		95	95	98	<b>98</b>
Non-hazardous waste	ton	Korea	24,383	28,793	27,803	<b>22,090</b>
Waste landfilled	ton	Korea	36	45	42	<b>48</b>
Waste incinerated			720	787	130	<b>161</b>
Waste incinerated with energy recovery			0	0	0	<b>0</b>
Waste incinerated without energy recovery			720	787	130	<b>161</b>
Recycled amount			23,628	27,961	27,631	<b>21,882</b>
Hazardous waste	ton	Korea	3,674	2,626	2,487	<b>2,288</b>
Waste landfilled	ton	Korea	0	0	0	<b>1</b>
Waste incinerated			677	835	362	<b>384</b>
Waste incinerated with energy recovery			0	0	0	<b>0</b>
Waste incinerated without energy recovery			677	835	362	<b>384</b>
Recycled amount			2,997	1,791	2,125	<b>1,903</b>
Total waste treatment	ton	Overseas	5,155	4,825	4,905	<b>4,142</b>
Waste landfilled	ton	Overseas	361	262	184	<b>78</b>
Waste incinerated			1,714	1,560	1,154	<b>1,119</b>
Waste incinerated with energy recovery			1,714	1,560	999	<b>830</b>
Waste incinerated without energy recovery			0	0	155	<b>289</b>
Waste recycling rate	Percentage (%)	Overseas	60	62	73	<b>71</b>

Classification	Unit	Scope	2020	2021	2022	2023
Non-hazardous waste	ton	Overseas	4,368	4,083	4,375	<b>3,680</b>
Waste landfilled	ton	Overseas	0	0	3	<b>5</b>
Waste incinerated			1,288	1,080	844	<b>755</b>
Waste incinerated with energy recovery			1,288	1,080	705	<b>488</b>
Waste incinerated without energy recovery			0	0	139	<b>267</b>
Recycled amount			3,080	3,003	3,528	<b>2,919</b>
Hazardous waste	ton	Overseas	787	742	530	<b>462</b>
Waste landfilled	ton	Overseas	361	262	181	<b>73</b>
Waste incinerated			426	480	310	<b>364</b>
Waste incinerated with energy recovery			426	480	294	<b>342</b>
Waste incinerated without energy recovery			0	0	16	<b>21</b>
Recycled amount			0	0	39	<b>25</b>

1) 2020 ~ 2022 data correction due to changes in unit

### Biodiversity

Classification	Unit	Scope	Critically Endangered (CR)	Endangered (EN)	Vulnerable (VU)	Total
Threatened species on IUCN Red List identified near worksites						
Domestic	No.	Korea	20	132	169	<b>321</b>
Incheon	No.	Korea	5	33	35	<b>73</b>
Ansan			5	31	35	<b>71</b>
Boryeong			5	33	36	<b>74</b>
Gunsan			5	35	63	<b>103</b>
Overseas	No.	Overseas	8	58	71	<b>137</b>
Tianjin, China	No.	Overseas	3	24	25	<b>52</b>
Yantai, China			4	28	32	<b>64</b>
Elnesvågen, Norway			1	6	14	<b>21</b>

## Social Data

### Privacy protection

Classification	Unit	Scope	2020	2021	2022	2023
Customers information leakages	Cases	Korea	0	0	0	0
No. of information security breaches			0	0	0	0
Total number of customers and employees impacted by the breach			0	0	0	0
Ratio of investment in information security	Percentage (%)		-	3.85	8.38	5.38

### Product labeling

Classification	Unit	Scope	2020	2021	2022	2023
Cases of violation of laws related to health and safety of products and services	Cases	Korea	-	0	0	0

### Customer management

Classification	Unit	Scope	2020	2021	2022	2023
Customer satisfaction survey results	Score	China	-	-	9.7	9.8
Ratio of target of customer satisfaction survey	Percentage (%)		98	97	98	98
Ratio of online sales			1.62	2.59	3.36	3.79

### Safety and health management

Classification	Unit	Scope	2020	2021	2022	2023
No. of ISO 45001 certified worksites <sup>1)</sup>	No.	Global	4	5	5	5
Ratio of ISO 45001 certified worksites <sup>2)</sup>	Percentage (%)		67	83	71	71

1) Personnel working at the certified worksites are included in the scope of completing internal and external audits

2) Based on domestic worksites and overseas production subsidiaries

### Occupational safety and health

Classification	Unit	Scope	2020	2021	2022	2023
Occupational accident rate	Percentage (%)	Korea	0.57	0.88	1.07	0.80
LTIR (employees)	200,000 hours	Global	0.43	0.78	0.94	0.66
LTIR (employees) <sup>1)</sup>		Korea	0.63	0.99	1.19	0.83
LTIR (employees)		Overseas	0.00	0.32	0.40	0.31
LTIR (contractors) <sup>1)2)</sup>		Korea	0.26	0.67	0.27	0.38
LTIR (contractors) <sup>2)</sup>		Overseas	0.00	0.00	0.00	0.00
TRIR (employees)		Global	0.86	1.15	1.47	1.01
TRIR (employees) <sup>1)</sup>		Korea	1.27	1.50	1.93	1.33
TRIR (employees)		Overseas	0.00	0.40	0.48	0.38
OIFR (employees) <sup>1)</sup>		Korea	0.11	0.18	0.30	0.23
Fatalities (employees)	Persons	Global	0	0	0	0
Ratio of fatalities (employees)	Percentage (%)		0.00	0.00	0.00	0.00
Fatalities (contractors) <sup>2)</sup>	Persons		0	1	0	0
Ratio of fatalities (contractors) <sup>2)</sup>	Percentage (%)		0.00	0.13	0.00	0.00
No. of participants in safety training (employees)	Persons	Korea	-	2,518	2,299	2,195
No. of participants in safety training (contractors) <sup>2)</sup>			787	778	784	832
Ratio of completed safety and health grievance <sup>3)</sup>	Percentage (%)		100	93	92	70

1) 2022 data correction due to changes in indicator definition

2) Based on inhouse contractors

3) Ratio of agenda completed by Industrial Safety and Health Committee

### Supply chain management

Classification	Unit	Scope	2020	2021	2022	2023
Total number of suppliers <sup>1)</sup>	No.	Korea	577	558	547	<b>571</b>
No. of tier 1 suppliers						
No. of key tier 1 suppliers	No.	Korea	102	102	80	<b>80</b>
Ratio of key tier 1 suppliers	Percentage (%)		18	18	15	<b>14</b>
Share of amount paid to key tier 1 suppliers			-	-	-	<b>48</b>
No. of suppliers that received ESG improvement support <sup>2)</sup>	No.	Korea	63	27	42	<b>167</b>
Ratio of suppliers that received an ESG inspection	Percentage (%)	Korea	-	-	-	<b>27</b>
Supplier grievances handling						
No. of supplier grievances reception	Cases	Korea	-	-	11	<b>3</b>
Ratio of supplier grievances handling	Percentage (%)		-	-	100	<b>100</b>
Supplier capacity building program						
Scale of capacity building program support	KRW 100 million	Korea	23	22	30	<b>57</b>
No. of suppliers participating in capacity building program	No.		4	3	7	<b>37</b>

1) No. of business entities that have or maintain contracts with the company to supply products and services or for other transactions

2) 2020~2022 data correction due to changes in scope of data

### Supply chain diagnosis

Classification	Unit	Scope	2020	2021	2022	2023
No. of suppliers that received an ESG audit	No.		-	41	45	<b>141</b>
Achievement of supplier ESG inspection compared to target	Percentage (%)		-	-	-	<b>100</b>
No. of suppliers from which positive/negative impact was identified						
Ratio of excellent suppliers	Percentage (%)	Korea	-	-	-	<b>45</b>
Ratio of high risk suppliers			-	-	-	<b>8.51</b>
Ratio of high risk suppliers with whom contract relationship was terminated			-	-	-	<b>0</b>
Ratio of high risk suppliers which agreed to establish improvement measures	Percentage (%)	Korea	-	-	-	<b>100</b>

## Shared growth

Classification	Unit	Scope	2020	2021	2022	2023
Number of suppliers received financial support	No.	Korea	56	56	52	<b>49</b>
Amount of financial support <sup>1)</sup>	KRW 100 million		435	435	435	<b>435</b>
Ratio of cash settlement cases	Percentage (%)		0.2	0.3	0.3	<b>13</b>
No. of payments	Times/ month		1	1	1	<b>1</b>
Support for protecting technology	Cases		22	22	28	<b>29</b>
Support for protecting technology			6	6	5	<b>5</b>
No. of ESG training courses <sup>2)</sup>	No.		19	21	3	<b>4</b>
Staff at suppliers who completed ESG training <sup>2)</sup>	Persons		37	265	183	<b>424</b>
ESG training hours	Hours	China	127	100	98	<b>52</b>
Competitiveness enhancement support operation days	man-day	Korea	248	183	202	<b>190</b>
Competitiveness enhancement support operation days		China	357	357	357	<b>331</b>
Provision of casting molds for supplier's part development	No.	Korea	135	196	135	<b>145</b>
Provision of casting molds for supplier's part development	KRW 100 million		202	297	178	<b>352</b>
Provision of casting molds for supplier's part development	No.	China	77	77	77	<b>77</b>

1) Fixed amount of shared growth fund contribution

2) Based on educational performance submitted for shared growth index evaluation

## Employees by employment type

Classification	Unit	Scope	2020	2021	2022	2023
No. of employees <sup>1)</sup>	Persons	Global	4,484	4,495	4,482	<b>4,606</b>
No. of employees <sup>1)2)</sup>	Persons	Korea	2,792	2,842	2,809	<b>2,747</b>
Workers with an undefined period	Persons	Korea	2,732	2,674	2,564	<b>2,524</b>
Workers with an undefined period (male)			2,497	2,457	2,358	<b>2,311</b>
Workers with an undefined period (female)			235	217	206	<b>213</b>
Workers with fixed term			60	168	245	<b>223</b>
Workers with fixed term (male)			55	157	242	<b>217</b>
Workers with fixed term (female)			5	11	3	<b>6</b>
No. of employees	Persons	Overseas	1,692	1,653	1,673	<b>1,859</b>
Workers with an undefined period	Persons	Overseas	1,642	1,599	1,619	<b>1,808</b>
Workers with an undefined period (male)			1,374	1,351	1,347	<b>1,450</b>
Workers with an undefined period (female)			268	248	272	<b>358</b>
Workers with fixed term			50	54	54	<b>51</b>
Workers with fixed term (male)			7	12	10	<b>13</b>
Workers with fixed term (female)			43	42	44	<b>38</b>

1) 2020~2021 data correction due to error

2) Excluding 7 temporary employees such as parental leave replacement workers

## Employees by job

Classification	Unit	Scope	2020	2021	2022	2023
Office	Persons	Korea	1,588	1,537	1,434	<b>1,406</b>
Technical			1,204	1,305	1,375	<b>1,341</b>
Office		Overseas	891	890	916	<b>1,062</b>
Technical			756	739	716	<b>797</b>

### Employees by age

Classification	Unit	Scope	2020	2021	2022	2023
Under 30	Persons	Korea	-	-	351	<b>412</b>
30~49			-	-	1,900	<b>1,801</b>
50 and over			-	-	642	<b>610</b>
Elderly <sup>1)2)</sup>	Persons	Korea	412	483	436	<b>404</b>
Elderly (executives)	Persons	Korea	-	-	8	<b>11</b>
Elderly (senior managers)			-	-	37	<b>52</b>
Elderly (managers)			-	-	391	<b>341</b>
Elderly <sup>1)</sup>	Persons	China	11	13	10	<b>17</b>

1) 55 or older

2) 2022 data was corrected due to changes in the aggregation scope of the elderly.

### Employee diversity

Classification	Unit	Scope	2020	2021	2022	2023
Gender						
Male	Persons	Korea	2,551	2,613	2,600	<b>2,528</b>
Female			240	228	209	<b>219</b>
Male		China	1,022	1,011	985	<b>991</b>
Female			183	184	176	<b>192</b>
Ratio of employees by nationality						
Ratio of employees with Korean nationality	Percentage (%)	Global	62	63	63	<b>61</b>
Ratio of employees at managerial position with Korean nationality			66	69	67	<b>63</b>

Classification	Unit	Scope	2020	2021	2022	2023
Ratio of employees with Chinese nationality	Percentage (%)	Global	28	28	27	<b>27</b>
Ratio of employees at managerial position with Chinese nationality			28	25	27	<b>31</b>
Ratio of employees with American nationality			2	2	3	<b>3</b>
Ratio of employees at managerial position with American nationality			2	2	2	<b>2</b>
Ratio of employees with Norwegian nationality			3	3	3	<b>4</b>
Ratio of employees at managerial position with Norwegian nationality			1	1	1	<b>1</b>
Ratio of employees with Chile nationality			2	1	1	<b>1</b>
Ratio of employees at managerial position with Chile nationality			1	1	1	<b>1</b>
Ratio of employees with Czech nationality			2	2	2	<b>2</b>
Ratio of employees at managerial position with Czech nationality			1	1	1	<b>2</b>
Disabled	Persons	Korea	36	34	31	<b>37</b>
Disabled (executives)	Persons	Korea	0	0	0	<b>0</b>
Disabled (senior managers)			5	5	6	<b>5</b>
Disabled (managers)			31	29	25	<b>32</b>
Disabled	Persons	China	0	0	0	<b>1</b>
Veterans	Persons	Korea	92	90	90	<b>87</b>
Veterans (executives)	Persons	Korea	0	0	1	<b>1</b>
Veterans (senior managers)			0	0	27	<b>23</b>
Veterans (managers)			0	0	62	<b>63</b>

### Female managers

Classification	Unit	Scope	2020	2021	2022	2023
Ratio of female executives	Percentage (%)	Korea	2.56	0.00	0.00	<b>0.00</b>
Ratio of female position holders <sup>1)</sup>			3.06	1.79	1.75	<b>2.42</b>
Ratio of general female managers (senior manager level)			7.65	7.97	7.70	<b>7.96</b>
Ratio of female in all management positions			3.22	3.34	3.06	<b>3.03</b>
Ratio of female in revenue-generating functions <sup>1)</sup>			5.26	5.47	6.73	<b>7.28</b>
Ratio of STEM-related positions <sup>2)</sup>			3.73	4.23	5.18	<b>5.53</b>

1) Ratio of female in charge of Construction Engineering Division and Engine Division

2) Ratio of female's senior manager level in charge of construction machinery product development and engine product development

### Parental leave and childcare leave

Classification	Unit	Scope	2020	2021	2022	2023
Number of employees on parental leave (male)	Persons	Korea	117	96	109	<b>70</b>
Number of employees on parental leave (female)			12	11	11	<b>14</b>
Number of employees on childcare leave(male)			26	38	52	<b>52</b>
Number of employees on childcare leave(female)			10	15	13	<b>24</b>
Number of employees returning to work after childcare leave(male)			25	28	14	<b>41</b>
Number of employees returning to work after childcare leave(female)			16	12	7	<b>10</b>
Ratio of workers who continue to work for 12 months after childcare leave(male)	Percentage (%)		100	100	100	<b>100</b>

### Parental leave and childcare leave

Classification	Unit	Scope	2020	2021	2022	2023
Ratio of workers who continue to work for 12 months after childcare leave(female)	Percentage (%)	Korea	100	100	100	<b>100</b>
Number of employees on parental leave (male)	Persons	China	41	27	23	<b>24</b>
Number of employees on parental leave (female)			10	11	4	<b>7</b>

### New hires

Classification	Unit	Scope	2020	2021	2022	2023
No. of new hires <sup>1)</sup>	Persons	Korea	14	37	185	<b>167</b>
By gender						
Male	Persons	Korea	12	35	166	<b>148</b>
Female			2	2	19	<b>19</b>
By age						
Under 30	Persons	Korea	1	13	134	<b>135</b>
30~49			12	23	51	<b>32</b>
50 or older			1	1	0	<b>0</b>
By job						
Managerial position (senior manager or higher)	Persons	Korea	9	15	34	<b>13</b>
Non-managerial			5	22	151	<b>154</b>
Ratio of new hires	Percentage (%)		0.51	1.38	7.17	<b>6.57</b>
Ratio of new hires		Overseas	3.34	2.99	8.16	<b>10.48</b>
Internal fill rate		Korea	0.00	9.09	0.00	<b>3.16</b>
Average hiring cost	KRW 1 million		21	10	24	<b>3</b>

1) 2020~2022 data correction due to error

### Turnover and tenure

Classification	Unit	Scope	2020	2021	2022	2023
Turnover rate <sup>1)</sup>	Percentage (%)	Global	2.28	3.24	5.37	<b>2.79</b>
By age						
Under 30	Percentage (%)	Global	20.72	17.39	14.33	<b>7.26</b>
30~49			2.06	3.46	5.16	<b>2.39</b>
50 and older			0.90	0.83	2.68	<b>2.17</b>
By gender						
Male	Percentage (%)	Global	1.97	2.74	4.76	<b>2.29</b>
Female			4.84	7.25	10.12	<b>6.80</b>
Average continuous years of service	Years	Korea	14.5	15.4	14.8	<b>14.6</b>
Male	Years	Korea	15.1	15.9	15.4	<b>15.1</b>
Female			7.9	9.0	8.6	<b>8.3</b>

1) Voluntary turnover rate equals to total turnover rate and transfers to and from affiliates were excluded.

### Human rights

Classification	Unit	Scope	2020	2021	2022	2023
Ratio of human rights impact assessment (employees)	Percentage (%)	Korea	-	-	-	<b>100</b>
Ratio of risk identification based on human rights impact assessment (employees)			-	-	-	<b>100</b>
Ratio of actions taken to mitigate risk after identifying risk based on human rights impact assessment			-	-	-	<b>100</b>
Rate of participation in human rights/ sexual harassment prevention education			97.1	99.8	99.1	<b>100.0</b>
No. of cases received regarding human rights related grievances	Cases	Korea	3	3	4	<b>1</b>
Ratio of handling human rights related grievances	Percentage (%)		100	100	100	<b>100</b>

### Labor union

Classification	Unit	Scope	2020	2021	2022	2023
Union membership rate	Percentage (%)	Korea	94	94	90	<b>96</b>

## Evaluation and compensation

Classification	Unit	Scope	2020	2021	2022	2023
Ratio of employees who receive a personnel evaluation (total)	Percentage (%)	Korea	98	94	91	<b>96</b>
Ratio of employees who received a personnel evaluation (office workers)	Percentage (%)	Korea	96	96	97	<b>94</b>
Ratio of employees who received a personnel evaluation (technical workers)			96	89	83	<b>99</b>
Ratio of employees who received a personnel evaluation (male)			98	94	91	<b>97</b>
Ratio of employees who received a personnel evaluation (female)			98	95	99	<b>86</b>
Ratio of employees who received incentives related to HR evaluation			100	100	100	<b>100</b>
Average salary of employees (total)	KRW 1 million	Korea	85	92	92	<b>96</b>
Average salary of employees (male)	KRW 1 million	Korea	87	94	94	<b>98</b>
Average salary of employees (female)			58	68	71	<b>69</b>

## Talent nurturing

Classification	Unit	Scope	2020	2021	2022	2023
Total training hours	Hours	Korea	98,560	110,206	91,572	<b>81,602</b>
Average training hours per person <sup>1)</sup>			35	39	33	<b>30</b>
Average training hours per job type						
Office worker	Hours	Korea	38	47	42	<b>43</b>
Technical worker			32	30	23	<b>16</b>
Average training hours by position						
Senior manager	Hours	Korea	-	-	-	<b>35</b>
Assistant manager			-	-	-	<b>27</b>
Manager			-	-	-	<b>82</b>
Average training hours by nationality						
Korea	Hours	Korea	-	-	-	<b>30</b>
Total training expenses	KRW 1 million	Korea	1,116	1,082	1,610	<b>1,620</b>
Average training expenses per person	KRW 1 million	Korea	0.40	0.38	0.57	<b>0.59</b>
Total number of trainees	Persons	China	1,205	1,195	1,161	<b>1,175</b>
Average training hours per person	Hours		10	18	17	<b>15</b>
Average training expenses per person	KRW 1 million		0.37	0.37	0.19	<b>0.36</b>

1) 2020~2022 data correction due to error

## Employee engagement

Classification	Unit	Scope	2020	2021	2022	2023
Employee engagement or satisfaction Percentage (positive response rate) <sup>1)</sup>	(%)	Korea	-	76	-	<b>68</b>
Rate of participation in employee engagement survey			-	-	-	<b>63</b>

1) Ratio of employees with high levels of satisfaction in employee surveys including job satisfaction/happiness/stress/purpose

## Contribution to community

Classification	Unit	Scope	2020	2021	2022	2023
Number of employees who participated in CSR activities	Persons	Korea	56	51	366	<b>952</b>
Number of employees who participated in CSR activities		China	1,201	561	473	<b>882</b>
The number of employees' participation in CSR activities	Times	Korea	183	253	558	<b>2,189</b>
Hours of employees' participation in CSR activities	Hours		591	752	1,358	<b>9,046</b>
Total donation	KRW		89	72	11	<b>30</b>
Total donation	100 million	China	4	1	1	<b>26</b>
Ratio of donation to sales	Percentage (%)	Korea	0.33	0.20	0.02	<b>0.07</b>
Ratio of participation in 1% salary sharing			72	71	50	<b>49</b>
1% salary sharing annual fund raised	KRW		141	120	203	<b>520</b>
1% salary sharing annual fund raised	1 million					
No. of employees participating in 1% salary sharing	Persons		1,961	1,885	1,443	<b>1,354</b>

## Social value<sup>1) 2)</sup>

Classification	Unit	Scope	2020	2021	2022	2023
By value category	KRW	Korea	-	-	733,192	<b>852,759</b>
Customer Value	1 million					
People Value	KRW	Korea	-	-	197,992	<b>246,539</b>
Societal Value	1 million					
Financial Value			-	-	(7,516)	<b>(6,786)</b>
By stakeholder	KRW	Korea	-	-	733,192	<b>852,759</b>
Customers	1 million					
Suppliers	KRW	Korea	-	-	197,991	<b>246,539</b>
Employees	1 million					
Earth environment			-	-	65,701	<b>84,432</b>
Government/Community			-	-	357,475	<b>377,709</b>
Investors			-	-	(6,816)	<b>(6,576)</b>
			-	-	11,684	<b>74,977</b>
			-	-	107,157	<b>75,678</b>

1) Based on EY long-term value measurement standards

2) 2022 data correction due to error

# TCFD

The Task Force on Climate-Related Financial Disclosures (TCFD) is an international initiative established by the Financial Stability Board (FSB) in response to the request from the G20. It aims to prevent the financial risks associated with climate change by improving and increasing the disclosure of climate-related financial information worldwide. HD Hyundai Infracore declared its support for TCFD in September 2022 and is reporting on governance, strategy, risk management, metrics and targets related to climate change in this integrated report, in accordance with the TCFD recommendations.

Theme	Type	TCFD recommendations	Page
Governance	The organization's governance around climate-related risks and opportunities	a) Description of activities of the BOD which manages/supervises risks and opportunities related to climate change	21
		b) Description of the role of the management which evaluates/manages risks and opportunities related to climate change	21
Strategy	The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	a) Description of the risks and opportunities associated with climate change in the short, medium, and long term	23-28
		b) Description of the impact of climate change-related risks/opportunities on the organization's strategy and financial planning	23-28
		c) Description of the flexibility of the business strategy in light of different climate change scenarios, including a 2°C or less scenario	23-28
Risk management	The processes used by the organization to identify, assess, and manage climate-related risks	a) Description of procedures for identifying and assessing climate change-related risks	22
		b) Description of procedures for managing climate change-related risks	22
		c) Description of how the procedures for identifying, assessing, and managing climate change-related risks are integrated into the organization's overall risk management framework	22
Metrics and Targets	The metrics and targets used to assess and manage relevant climate-related risks and opportunities	a) Disclosure of the metrics used by the organization to assess climate change-related risks/opportunities in line with its business strategy and risk management procedures	29
		b) Disclosure of risks related to Scope 1, 2, and 3 emissions	29
		c) Targets and performance against targets used to manage climate change-related risks/opportunities	29

# UN Global Compact(UNGC)

HD Hyundai Infracore became a member of the United Nations Global Compact (UNGC) in June 2013, and supports the UNGC's 10 principles in the four main areas of human rights, labor, environment, and anti-corruption. HD Hyundai Infracore is committed to fulfilling its corporate social responsibilities and strives to be a responsible global corporate citizen, continuously challenging itself in the pursuit of innovative future value.

Human rights	1	Businesses should support and respect the protection of internationally proclaimed human rights; and
	2	make sure that they are not complicit in human rights abuses.
Labor	3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
	4	the elimination of all forms of forced and compulsory labour;
	5	the effective abolition of child labour; and
	6	the elimination of discrimination in respect of employment and occupation.
Environment	7	Businesses should support a precautionary approach to environmental challenges;
	8	undertake initiatives to promote greater environmental responsibility; and
	9	encourage the development and diffusion of environmentally friendly technologies.
Anti-corruption	10	Businesses should work against corruption in all its forms, including extortion and bribery.

# Verification Statement on Greenhouse Gas Emissions

## Verification Opinion

[Issue No. of Verification Opinion] CSR-VO-20240530-00001

### 1. Verification Introduction

This verification has been conducted by Creative Sustainable Register (hereinafter “CSR”), third-party verification body accredited by ISO and Ministry of Environment, to verify that the Green-house Gas Statement (hereinafter ‘claim’) regarding the greenhouse gas emissions of HD Hyundai Infracore Co., Ltd. (hereinafter ‘the client’) has been accurately calculated and reported in accordance with the applicable verification criteria (see section 3). The client is responsible for fairly preparing and submitting the claim in accordance with the applicable verification criteria (see section 3). This responsibility includes designing, implementing, and maintaining data and information management systems related to the fair preparation and submission of a claim that is free from material misstatement.

### 2. Verification Information

CSR entered a legally binding contract with the client for the purpose of this verification (refer to section 1) and agreed upon the following matters.

2.1 Customer: HD Hyundai Infracore Co., Ltd.

2.2 Address: 489, Injung-ro, Dong-gu, Incheon, Korea

2.3 Boundary: 7 domestic business place

2.4 Period: 1 year(1st Jan., 2023 ~ 31th Dec., 2023) 2.5 Scope: Direct emission(Scope1), Indirect emission(Scope2)

2.6 Requirement of Greenhouse gas Programme:

- 1) Applied programme: Greenhouse gas ETS of Korea
- 2) Assurance level: reasonable assurance level
- 3) Materiality: within +/-5%

### 3. Verification Criteria

CSR verified the claim prepared by the client in accordance with the Act on the Allocation and Trading of Greenhouse Gas Emission Permits, Article 13 and its Enforcement Decree, Article 21, and the Guidelines on Reporting and Certification of Emissions for the Emissions Trading System (Ministry of Environment Notice No. 2023-221). This verification was conducted in accordance with the Verification Guidelines for the Operation of the Emissions Trading System (Ministry of Environment Notice No. 2021-112) and our greenhouse gas verification procedures based on the ISO 14064-3.

### 4. Verification Procedure

CSR conducted this verification using an evidence-based approach for the client’s claim based on historical data (refer to section 2.4). Evidence was collected and its suitability assessed according to the activities outlined below. Finally, an independent technical review by personnel not involved in the planning and execution stages of the verification was conducted, leading to the formulation of the verification opinion (refer to section 6).

- Establishing an evidence collection plan through strategic analysis, risk assessment, and evidence gathering activities
- Visiting business sites and facilities and interviewing relevant personnel to collect evidence and resolve issues
- Sampling greenhouse gas data and information that meet the “level of assurance (refer to section 2.6’s 2))”
- Evaluating recalculations of emissions that meet the “materiality threshold (refer to section 2.6’s 3))”

### 5. Verification limits

This verification was conducted by an independent third-party verification body with no conflicts of interest with the client. Although appropriate measures were taken to provide reasonable assurance using a risk-based approach and an evidence-based approach, due to the inherent limitations of the sampling approach, some misstatements or non-conformities may remain within the materiality threshold in the client’s claim.

# Verification Statement on Greenhouse Gas Emissions

## 6. Verification opinion

CSR conducted verification at a reasonable assurance level in accordance with the greenhouse gas program requirements agreed upon with the client (refer to section 2.6). Through this process, it has been confirmed that the client's claim is as follows, therefore, we express a "Unqualified" opinion.

- 1) there is sufficient and appropriate evidence to support emissions.
- 2) the verification criteria have been appropriately applied to emissions.
- 3) the effectiveness of controls was evaluated when deemed necessary by the verification audit team.

Accordingly, the confirmed final greenhouse gas emissions information is as follows.

unit: tCO<sub>2</sub>eq

Reporting year	Type	GHG Quantity
2023	Direct emission	26,304.306
	Indirect emission	68,175.128
	<b>Toal annual emission</b>	<b>94,476</b>

Creative Sustainable Register Co., Ltd.  
Address: #1-611, 775, Gyeongin-ro, Yeongdeungpo-gu, Seoul, Korea

May 30, 2024

Verifier  
**SEO JEONGMIN**

CEO  
**CHUN-SEONG CHOI**

The responsibility for this verification opinion lies with CSR, which hold the authority over it. Therefore, the client cannot arbitrarily add, delete, or alter this opinion. If the content of this opinion is to be quoted, the client must comply with the CSR's 'Guideline for Quoting Verification Statements and Using Verification Body Marks.'

# Verification Statement on Scope 3 Greenhouse Gas Emissions

## Scope

Other indirect greenhouse gas emissions in 2023 (Scope 3)  
 2023 HD Hyundai Infracore's Domestic Business Sites

## Data Verified

Emissions (Scope3) for product manufacturing and disposal of products at domestic workplaces in 2023 are as follows.

Unit: tCO<sub>2</sub>e

Category	Scope of business establishment	Total Emissions in 2023
Purchased Goods and services	All business establishments	51,415.3
Capital Goods	All business establishments	630.1
Fuel-and Energy-Related Activities Not Included in Scope1 or Scope 2	All business establishments	10,022.8
Upstream Transportation and Distribution	All business establishments	146,652.2
Waste Generated in Distribution	Incheon,Kunsan,Ansan, Boryeong	1,242.5
Business Travel	All business establishments	1,131.6
Employee Commuting	Incheon,Kunsan, Ansan, Bundang	1,069.7
Downstream Transportation and Distribution	All business establishments	798.1
Use of Sold Products	All business establishments	6,917,977.8
End-of-Life Treatment of Sold Products	All business establishments	2,598.2
Investments	-	10.6
<b>Total</b>		<b>7,133,549.0</b>

## GHG Criteria & Protocols used for Verification

The verification was carried out at the request of the HD Hyundai Infracore Co., Ltd. using:

- ISO 14064-1:2018 & ISO 14064-3:2019
- WBCSD/WRI GHG Protocol
- 2006 IPCC Guidelines
- Guideline for Reporting and Certification of Emissions in the Greenhouse Gas Emissions Trading Scheme (2023-221)
- BSI GHGEV Manual

The standard confidentiality principle of BSI Group Korea is applied to all verification activities.

## Verification Opinion

BSI Group Korea's verification opinions on the result of carrying out verification in accordance with the GHG criteria and protocols mentioned above are as follows.

- Scope 3 other indirect emissions for HD Hyundai Infracore's domestic business sites were carried out with limited verification.
- During the verification process, no major problems were found in the calculation of greenhouse gas emissions, and it was confirmed that the relevant activity data and evidence were appropriately managed.
- Therefore, the BSI Group Korea verification team provides an "appropriate" verification opinion."

For and on behalf of BSI:

28/05/2024

Managing Director Korea, **SEONGHWAN LIM**



# Independent Assurance

## To: The Stakeholders of HD HYUNDAI INFRACORE

### Overview

The British Standards Institution (hereinafter referred to as the “Assurer”) was requested to verify the HD HYUNDAI INFRACORE Sustainability report (hereinafter referred to as the “Report”). The Assurer is independent to HD HYUNDAI INFRACORE and has no major operational financial interest other than the assurance of the Report. This assurance opinion statement is intended to provide information related to the assurance of the HD HYUNDAI INFRACORE’s report relating to the environment, social and governance (ESG) to the relevant stakeholders and may not be used for any other purpose. This assurance opinion statement is prepared based on the information presented by the HD HYUNDAI INFRACORE. The verification does not extend beyond such information and is solely based on it. In performing such verification, the Assurer has assumed that all such information is complete and accurate.

HD HYUNDAI INFRACORE is responsible for managing the relevant information contained within the scope of assurance, operating the relevant internal control procedures, and for all information and claims contained in the Report. Any queries that may arise by virtue of this independent assurance opinion statement or matters relating to it should be addressed to HD HYUNDAI INFRACORE only.

The Assurer is responsible for providing HD HYUNDAI INFRACORE’s management team with an independent assurance opinion containing professional opinions derived by applying the assurance methodology to the scope specified, and to provide the information to all stakeholders of HD HYUNDAI INFRACORE. The Assurer will not, in providing this independent assurance opinion statement, accept or assume responsibility (legal or otherwise) or accept liability for or in connection with any other purpose for which it may be used, or to any person or party by whom the Independent assurance opinion statement may be read.

### Scope

The scope of engagement agreed upon with HD HYUNDAI INFRACORE includes the following:

- Report contents during the period from January 1st to December 31st 2023 included in the Report, some data of 2024 are included.
- Major assertion included in the Report, such as sustainability management policies and strategies, goals, projects, and performance, and the Report contents related to material issues determined as a result of materiality assessment.
- Appropriateness and consistency of processes and systems for data collection, analysis and review.
- Confirmation of the Report’s compliance with the AA1000 AccountAbility Four Principles and, where applicable, the reliability of the sustainability performance information contained within the Report, based on the type of sustainability assurance performed in accordance with AA1000 AS v3.

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

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

### Assurance Level and Type

The assurance level and type are as follows;

- Moderate level based on AA1000 AS and Type 2 (confirmation to the four principles as described in the AA1000 Accountability Principle 2018 and quality and reliability of specific performance information published in the report.)

# Independent Assurance

## Description and sources of disclosures covered

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

### [Universal Standards]

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

### [Topic Standards]

205-1~3, 206-1, 302-1, 302-3~4, 305-1~7, 308-1~2, 403-1~10, 414-1~2

## Methodology

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

- Validation of the materiality assessment and internal analytical process for determining assurance priorities, and a toplevel review of issues that may be raised by external stakeholders in the context of sustainability.
- Discussion with managers and representatives on stakeholder engagement.
- Review of the supporting evidence related to the material issues through interviews with senior managers in the responsible departments.
- Review of the system for sustainability management strategy process and implementation.
- Review of the materiality issue analysis process and prioritization and verifying the results.

- Verification of data generation, collection and reporting for each performance index and document review of relevant systems, policies, and procedures.
- An assessment of HD HYUNDAI INFRACORE's reporting and management processes against the principles of Inclusivity, Materiality, Responsiveness and Impact as described in the AA1000 AccountAbility Principles Standard (2018).
- Visit of the Global R&D Center of HD HYUNDAI INFRACORE to confirm the data collection processes, record management practices.

## Limitations and approach used to mitigate limitations

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

## Competency and Independence

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

# Independent Assurance

## Opinion Statement

The assurance was conducted by a team of sustainability report assurers in accordance with the AA1000 Assurance Standard v3. The Assurer planned and performed the verification and collected sufficient evidence to explain HD HYUNDAI INFRACORE's approach to the AA1000 Assurance Standard and to provide confidence in its self-declaration of compliance with the GRI Standards.

On the basis of our methodology and the activities described above, it is our opinion that the information and data included in the Report are accurate and reliable and the Assurer cannot point out any substantial aspects of material with mistake or misstatement. We believe that the economic, social and environment performance indicators are accurate and are supported by robust internal control processes.

## Conclusions

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

### Inclusivity: Stakeholder Engagement and Opinion

HD HYUNDAI INFRACORE defines key stakeholders that have a significant impact on business activities as employees, customers, partners, communities, governments and shareholders/investors, and communities. In order to collect opinions on the positive and negative effects of business activities, HD HYUNDAI INFRACORE actively collects opinions from stakeholders based on communication channels by stakeholders and reflects them in business activities such as strategy establishment and implementation. It also collects expectations and various opinions from key stakeholder groups, reflects the derived material issues in making decisions related to sustainability, and discloses the process through the report.

## Materiality: Identification and reporting of material sustainability topics

HD HYUNDAI INFRACORE analyzes stakeholders' interests, improvements, and the impact of corporate activities through the double-criticality evaluation to derive key issues. Based on the results of the double-criticality evaluation, HD Hyundai Infracore considers the impact of corporate activities on the economic environment and humanity, and the financial impact of various environmental changes (environment, society, management) on corporate value. After reviewing the ESG management committee, it selected five key issues: climate change response, eco-friendly product and service development, supply chain management, workplace and employee safety and health, and securing governance soundness and independence.

## Responsiveness: Responding to material sustainability topics and related impacts

HD HYUNDAI INFRACORE has established a management process for key reporting issues related to important sustainability topics and related impacts. To adequately respond to the expectations of stakeholders, we disclose through our reports the governance, strategy, metrics and targets of key reporting issues, as well as response performance, including the establishment and management of metrics.

## Impact: Impact of an organization's activities and material sustainability topics on the organization and stakeholders

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

# Independent Assurance

## Findings and conclusions concerning the reliability and quality of specified performance information

Among the GRI Topic Standards, an assurance Type 2 were conducted against the following disclosures based on the information and data provided by HD HYUNDAI INFRACORE. In order to verify the reliability and accuracy of the data and information, internal control procedures related to data processing, and management were verified through interviews with the responsible department, and accuracy was verified through sampling. Errors and intentional distortions in sustainability performance information included in the Report were not found through assurance processes. The HD HYUNDAI INFRACORE manages the sustainability performance information through reliable internal control procedures and can track the process of deriving the source of the performance. Errors and unclear expressions found during the assurance process were corrected and the Assurer confirmed the final version of the Report prior to its final publication.

- GRI Topic standards: 205-1~3, 206-1, 302-1, 302-3~4, 305-1~7, 308-1~2, 403-1~10, 414-1~2

## Recommendations and Opportunity for improvement

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

- The content of the report describes HD HYUNDAI INFRACORE 's major ESG management performance in 2023 and its 2024 plan, as well as its efforts to advance its activities. At the same time, deriving underperforming sustainability issues and specifying related mid- to long-term strategies and goals can help ensure the balance of the report.

## GRI-reporting

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

20/06/2024

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

BSI representative

Lead Assurer  
JONG HO LEE



MANAGING DIRECTOR OF BSI KOREA  
SEONGHWAN LIM



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