

SUSTAINABILITY REPORT 2026

HEESUNG CATALYSTS CORP.
SUSTAINABILITY REPORT 2026



A Sustainable Future Driven
by Catalyst Innovation

Heesung Catalysts provides innovative catalyst solutions to address environmental challenges in preparation for a carbon-neutral era.

About this Report

Report Overview

Heesung Catalysts Corp. is pleased to publish its 2026 Sustainability Report. This report systematically presents the Company's ESG management objectives and performance for disclosure to its stakeholders. In preparing this report, the Company gathered input from key stakeholders and conducted a materiality assessment to identify core issues, around which it has structured its sustainability management performance and plans.

Reporting Period

This report covers sustainability management activities and performance from January 1 to December 31, 2025. Where deemed material, certain information has been updated through the first half of 2026 to enhance timeliness and meet stakeholders' right to information. Quantitative performance data and metrics, including financial information, cover the most recent three fiscal years (2023-2025) to enable trend analysis.

Reporting Boundary

Sustainability management activities and performance are reported on the basis of domestic operations, including production plants, R&D facilities, and the Seoul office.

Reporting Standards

This report has been prepared in accordance with the GRI (Global Reporting Initiative) Standards, the globally recognized framework for sustainability reporting, using the referenced approach. Certain financial information follows K-IFRS, and environmental data, including greenhouse gas emissions, is based on verified results.

Report Assurance

Key environmental data, including greenhouse gas emissions and energy consumption, has undergone additional verification processes to ensure accuracy.

**A Sustainable Future Driven
by Catalyst Innovation**

Heesung Catalysts provides innovative catalyst solutions to address environmental challenges in preparation for a carbon-neutral era.

**Advancing catalyst
innovation** for a cleaner,
carbon-neutral tomorrow

Report Inquiries

Heesung Catalysts Corp.
- Sustainability Management Team

☎ 031-496-5607

✉ gr.oh@hscatalysts.com



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SUSTAINABILITY REPORT 2026

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CHAPTER 01

Introduction

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Message from the CEO

Dear Valued Stakeholders,

Since its founding in 1983, Heesung Catalysts has established itself as a leading catalyst company, providing customized solutions to customers across a wide range of industries. Building on our vision to become “**a catalyst-based eco-friendly technology leader that realizes a carbon-neutral society,**” we are continuing our journey toward a sustainable future.

We are committed to establishing and systematically managing an ESG management framework, while growing together with all of our stakeholders, including employees, customers, suppliers, and local communities. To this end, we are carrying out various initiatives to minimize our environmental impact, foster a corporate culture that respects human rights and ethics, and build a sustainable supply chain.

We support and comply with international standards and norms related to human rights, labor, the environment, and ethics, including the Universal Declaration of Human Rights, the UN Guiding Principles on Business and Human Rights, the International Labour Organization’s core conventions, the Ten Principles of the UN Global Compact, and the Responsible Business Alliance Code of Conduct. We also strictly adhere to the laws and regulations of the countries and regions in which we operate.

These global standards are deeply embedded in our management principles, guiding us as we fulfill our responsibilities as a company founded on respect for human rights, protection of labor rights, environmental stewardship, and ethical business practices.

In addition, we have established a carbon neutrality roadmap to achieve Net Zero by 2045, and we are striving to build an eco-friendly production system through improved process efficiency and the adoption of renewable energy. Going forward, Heesung Catalysts will continue to pursue ongoing improvement and innovation based on ESG management, creating sustainable value together with our stakeholders.

We will do our utmost to ensure that our technologies and expertise serve as a guiding light on the path toward a carbon-neutral society.

We sincerely ask for your continued interest and support.'

Thank you.

CEO **Hyun-sik Han**



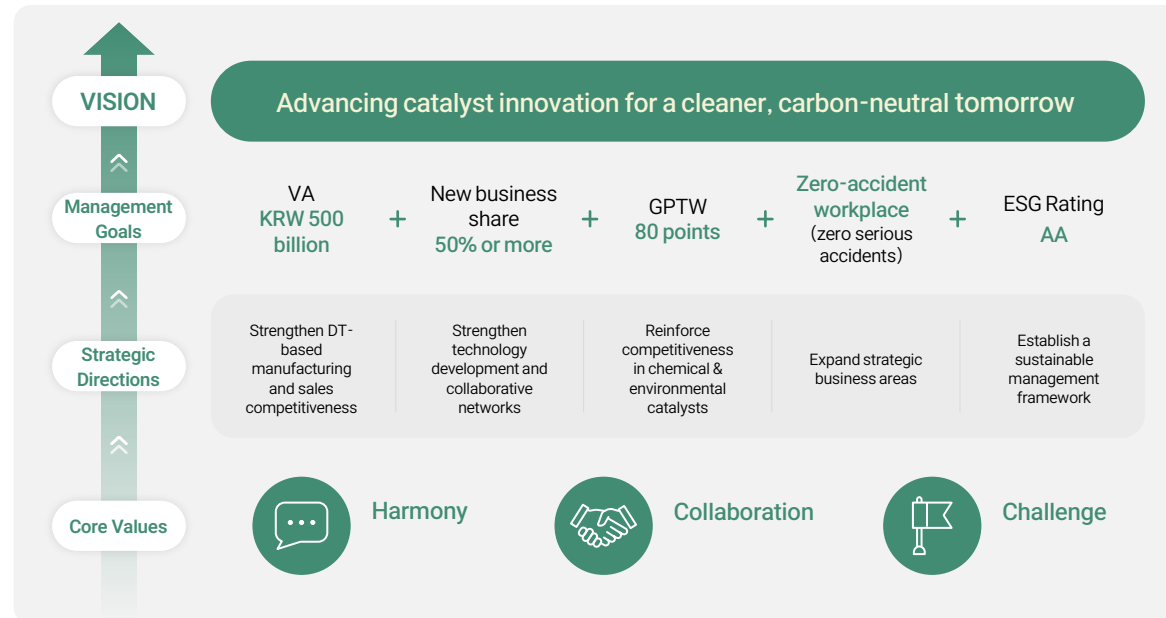
About Heesung Catalysts

HEESUNG CATALYSTS

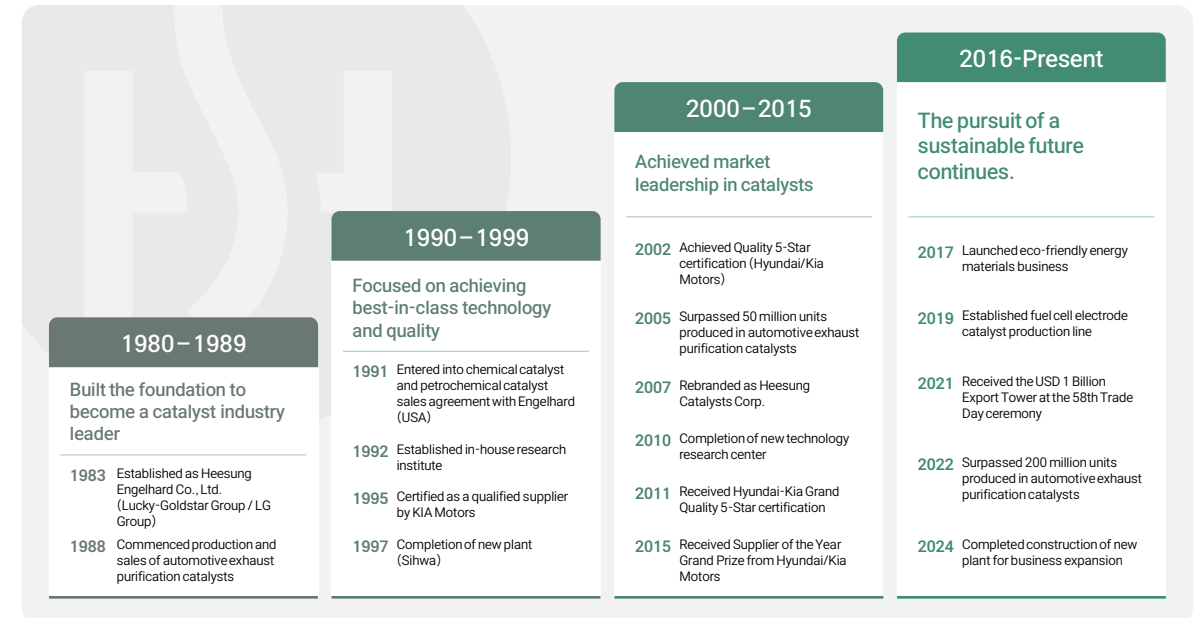
Founded in 1983, Heesung Catalysts Corp. is a specialist in catalyst-based eco-friendly solutions, partnering with customers to build a cleaner, more efficient industrial environment. The Company operates across catalyst-related business lines including automotive catalysts, environmental catalysts, chemical catalysts, electrode catalysts, and precious metal materials. With a foundation built on over 40 years of accumulated know-how, Heesung Catalysts is embarking on a new chapter to lead the global era of clean technology.

Company Name	Heesung Catalysts Corp.	CEO	President Hyun-sik Han
Headquarters	91, Somanggongwon-ro, Siheung-si, Gyeonggi-do, Republic of Korea	Date of Incorporation	April 21, 1983
Employees	562	Credit Rating	A
Core Businesses	Automotive catalysts, chemical catalysts, environmental catalysts, electrode catalysts, precious metal materials	Revenue Operating Profit	KRW 1,175.3 billion KRW 162.1 billion (as of December 2025)

Vision



History



Business Segments



Automotive Catalysts

Heesung Catalysts develops and supplies a broad range of exhaust aftertreatment catalysts capable of purifying harmful gases (HC, CO, NOx, PM) emitted during vehicle operation. Backed by extensive experience in automotive catalyst development and customer support, the Company delivers tailored catalyst technologies to meet each customer's specific requirements.

Automotive Catalyst Supply Chain

STEP 01 | Heesung Catalysts



Precious metal washcoat application to enhance purification performance

STEP 02 | Canner



Canning to protect the catalyst from physical damage

STEP 03 | Customers



Integration of canned catalyst assembly into the vehicle

Automotive Catalysts Key Products

1 Gasoline Catalysts

TWC

- Simultaneous reduction of hydrocarbons (HC),
- and nitrogen oxides (NOx)
- carbon monoxide (CO),

GPF

- PM regulatory compliance
- catalyst technology



2 Diesel Passenger Vehicle Catalysts

DOC

- Removal of hydrocarbons, and hydrocarbon components from PM
- carbon monoxide,

GPF

- NOx adsorption catalyst technology utilizing chemically active components to store nitrogen oxides



3 Diesel Commercial Vehicle Catalysts

DOC

- Removal of hydrocarbons, and hydrocarbon components from PM
- carbon monoxide,

DPF

- PM regulatory compliance catalyst technology

SCR

- NOx purification catalyst technology



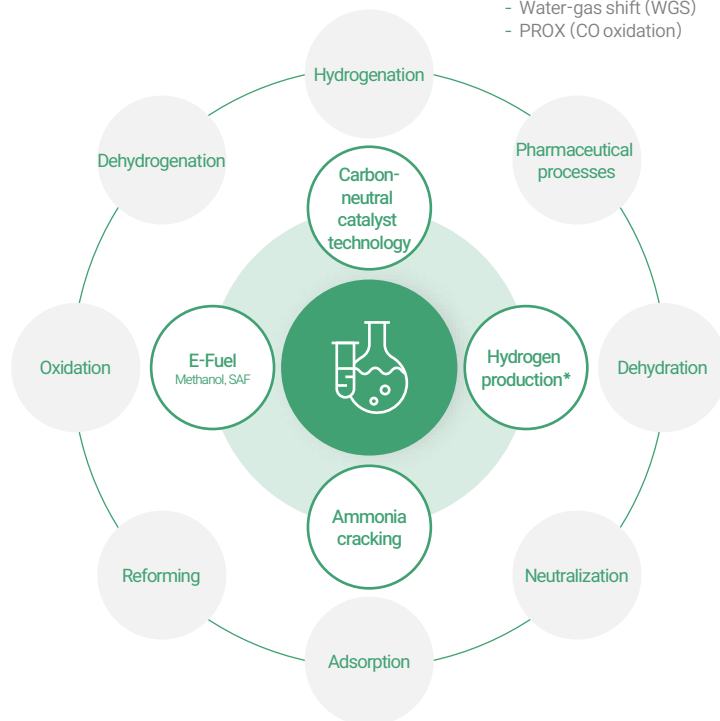
Business Segments



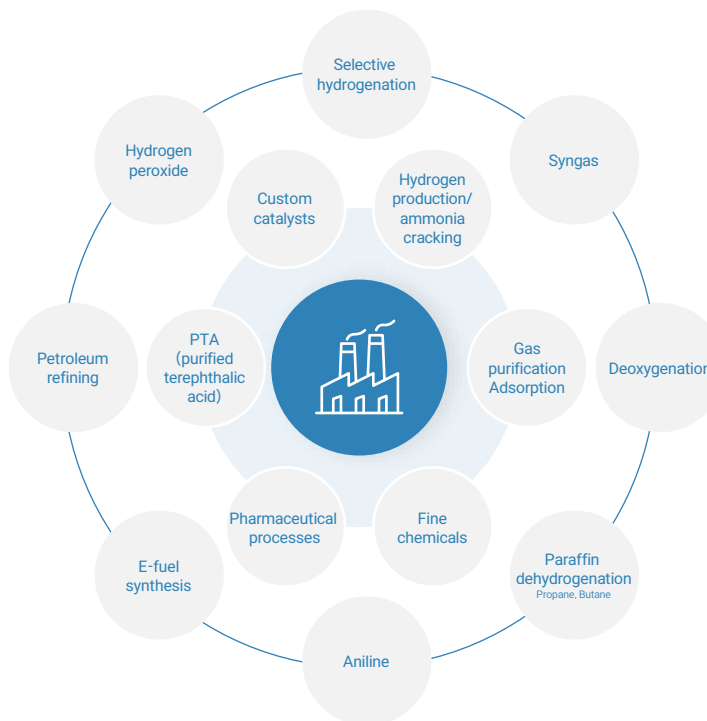
Chemical Catalysts

Heesung Catalysts delivers optimal chemical process catalyst and hydrogen production catalyst solutions through world-class technological expertise, rigorous quality control, and customer-focused technical support. The Company's high-performance catalysts contribute to improved operational efficiency, higher yields and catalyst lifetimes, and energy savings across a wide range of chemical processes, creating value for customers and advancing industrial development.

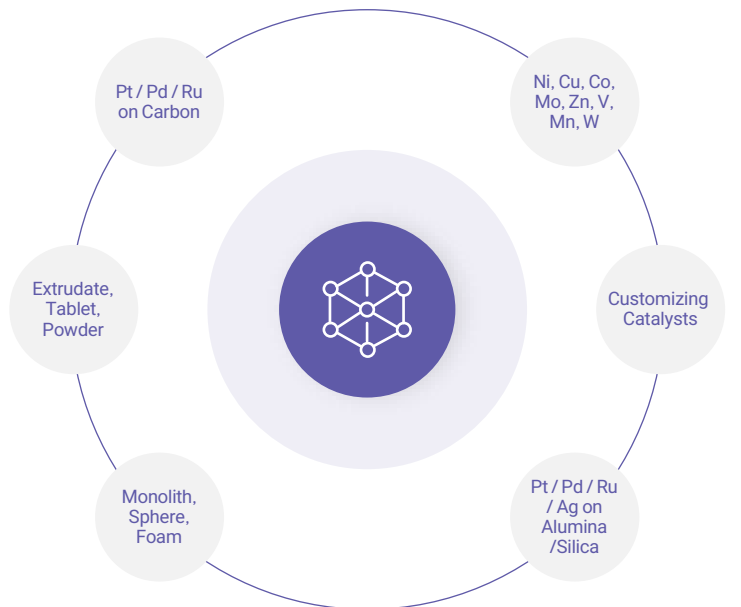
Reactions



Applications



Catalyst Types



Business Segments



Environmental Catalysts

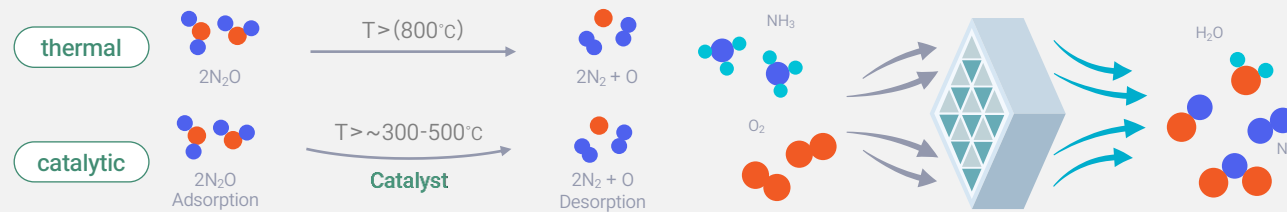
Integrated emissions management is essential to effectively reduce pollutants generated at industrial facilities.

Leveraging its proprietary exhaust gas purification catalyst technology,

Heesung Catalysts applies optimized environmental control methodologies tailored to each facility's characteristics, contributing to the prevention of global climate and environmental change.

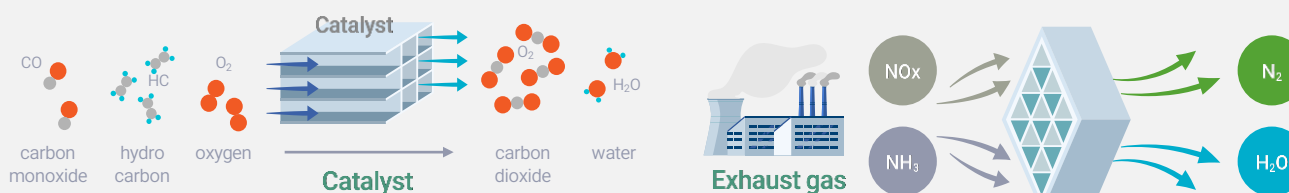
GHG Reduction Solutions [Semiconductor & Display / Ammonia & LNG-fueled Vessels]

Applications | Marine engines (MOC, AOC) / Semiconductor (PFC, N₂O) / Display (PFC, N₂O)



Air Quality Solutions [VOC, CO / De-NO_x]

Applications | Petrochemicals / Coating & drying processes / Power plants / Printing industry / Steel mills / Marine engines (NO_x)



Business Service



Resource Recycling

- 1 New catalyst supply » Spent catalyst » Precious metal recovery & refining » New catalyst or sale
- 2 New catalyst supply » Spent catalyst » Substrate recovery & regeneration » Regenerated catalyst
- 3 Replacement of end-of-life catalysts with new catalysts
- 4 Catalyst regeneration to extend service life



Customers Services

- 1 Custom catalyst design
- 2 Air pollution control equipment consulting
- 3 Catalyst analysis, activity evaluation, troubleshooting & after-sales support
- 4 Delivery of optimal solutions aligned with customer requirements

Business Segments



Precious Metal Materials

Since 1983, drawing on technology developed with Engelhard (USA), Heesung Catalysts has maintained the highest quality standards across its precious metal materials portfolio, from dental casting alloys to electroplating materials. The Company does not source minerals from conflict-affected areas, and gold raw materials are procured exclusively through certified suppliers. Through over 40 years of precious metal expertise, the Company promotes responsible raw material management and resource circularity, contributing to environmental protection and fulfilling its social responsibilities.

Precious Metal Materials - Key Products

PGC

(Potassium Gold Cyanide)



01 Chemical Formula

$\text{KAu}(\text{CN})_2$

02 CAS No.

13967-50-5

03 Au Purity

99.99% or higher

04 Shelf Life

Indefinite

05 Application

(Semiconductor substrates, PCB boards, connectors, terminals, jewelry)

Au Plating

06 Recycled PGC available

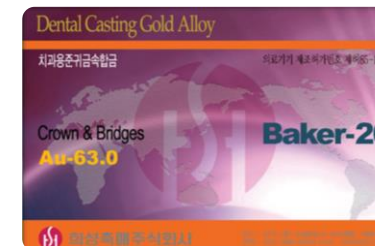
PGC can be manufactured using 100% certified recycled gold

Dental Alloys



A portfolio of 34 products: quality management systems developed and applied over 40 years of manufacturing expertise to ensure superior quality

Dental casting alloys with outstanding properties produced through systematic manufacturing management using premium raw materials (GMP, KOLAS, ISO9001/14001 certified)



Business Segments



Electrode Catalysts

As global carbon reduction policies reshape the energy landscape, Heesung Catalysts develops electrode catalysts, the essential materials at the heart of fuel cells and water electrolysis systems, and delivers them to customers with the scale and production expertise to meet demand.

The Company continues to research catalysts that deliver high performance and durability while reducing precious metal content.

Electrode Catalysts - Key Products



Pt/C, Pt-X/C, IrOx, and other catalysts are offered as complete electrode solutions, with precious metal loading, carbon support surface area, and ink properties customized to customer specifications.

Application	PEMFC, PAFC, DMFC			PEMWE / AEMWE	
Product	Pt/C	Pt-X/C	IrOx, IrOx/TMO x	Pt/C	Pt-X/C
Metal	5-70%	10-60%	30-100%	5-70%	10-60%
Carbon	Carbon support available to meet customer requirements				

Applications of Electrode Catalysts

1 Stationary Fuel Cells

Pushing the performance and durability of stationary fuel cell catalysts to their limits, helping drive the transition to clean energy and making sustainable power a practical reality.



2 Transportation Fuel Cells

Developing and supplying catalysts with outstanding performance and durability for passenger and commercial vehicles, leading the development of a future clean mobility ecosystem.



3 Water Electrolysis

Water electrolysis systems produce green hydrogen using electricity generated from renewable sources such as solar and wind energy. The Company develops and supplies catalysts, the core component of water electrolysis systems, contributing to building a carbon-neutral society.



R&D Capabilities

Heesung Catalysts' research institute was established in response to increasingly stringent automotive emission regulations and growing societal demands for environmental protection. Grounded in decades of accumulated catalyst technology, the institute provides high-efficiency, eco-friendly solutions that underpin the Company's competitiveness in both domestic and international markets. Through continuous research and innovation, Heesung Catalysts is reducing environmental pollution across diverse industrial sectors and reinforcing its technological edge for a sustainable future.



Established

April 1992

Headcount

144 (over 26% of total workforce)

Key Facilities

01

10 fundamental research laboratories

02

Catalyst and raw material characterization equipment

03

Catalyst manufacturing and evaluation equipment

04

15 engine test cells
2 chassis dynamometers

05

Over 300 catalyst experiment, analysis, and evaluation instruments

R&D Areas

01



Automotive catalysts

02



Chemical catalysts

03



Climate catalysts

04



Environmental catalysts

05



Hydrogen production

06



Fuel cell & water electrolysis electrode catalysts

07



Energy materials

Intellectual Property Portfolio (as of December 2025)

Category		Total Applications	Registered
Domestic	Patents	201	98
	Utility Models	12	4
Overseas	Individual Country Applications	241	100
	PCT	84	-

R&D Personnel (as of December 2025)

Research/Design				Research Support		Total
Associate's	Bachelor's	Master's	Ph.D.	Technician	Admin	
2	13	35	10	83	1	44

CHAPTER 02

ESG Management

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ESG Strategy Framework

Strategic Tasks

Environmental

(Carbon Neutrality & Environmental Management)



- Carbon neutrality practice
- Strengthen environmental management system
- Establish energy management system
- Build LCA/CDP response framework

Social

(Safety/Health, HR, Supply Chain)



- Build self-regulatory prevention framework / Embed safety culture
- Advance safety & health management systems
- Build high-performance HR systems
- Strengthen core talent acquisition and development
- Drive profitability through best-in-class QCD and SCM
- Establish ESG procurement system

Governance

(Finance, Compliance, Disclosure)



- Establish ethical management system
- Strengthen financial capabilities
- Minimize financial risk
- Drive sustainable growth

Strategic Directions



Build a carbon-neutral, eco-friendly implementation framework



Advance ESG-based social responsibility management



Establish a sustainable eco-friendly business implementation framework

Goal



A company pursuing sustainable growth through eco-friendly transition



A company practicing transparent and equitable socially responsible management

Vision



Advancing catalyst innovation
for a cleaner, carbon-neutral tomorrow

ESG Targets

GPTW
80
points

Zero-
accident
workplace

Korea Institute
of Corporate
Governance
and
Sustainability
Rating
AA

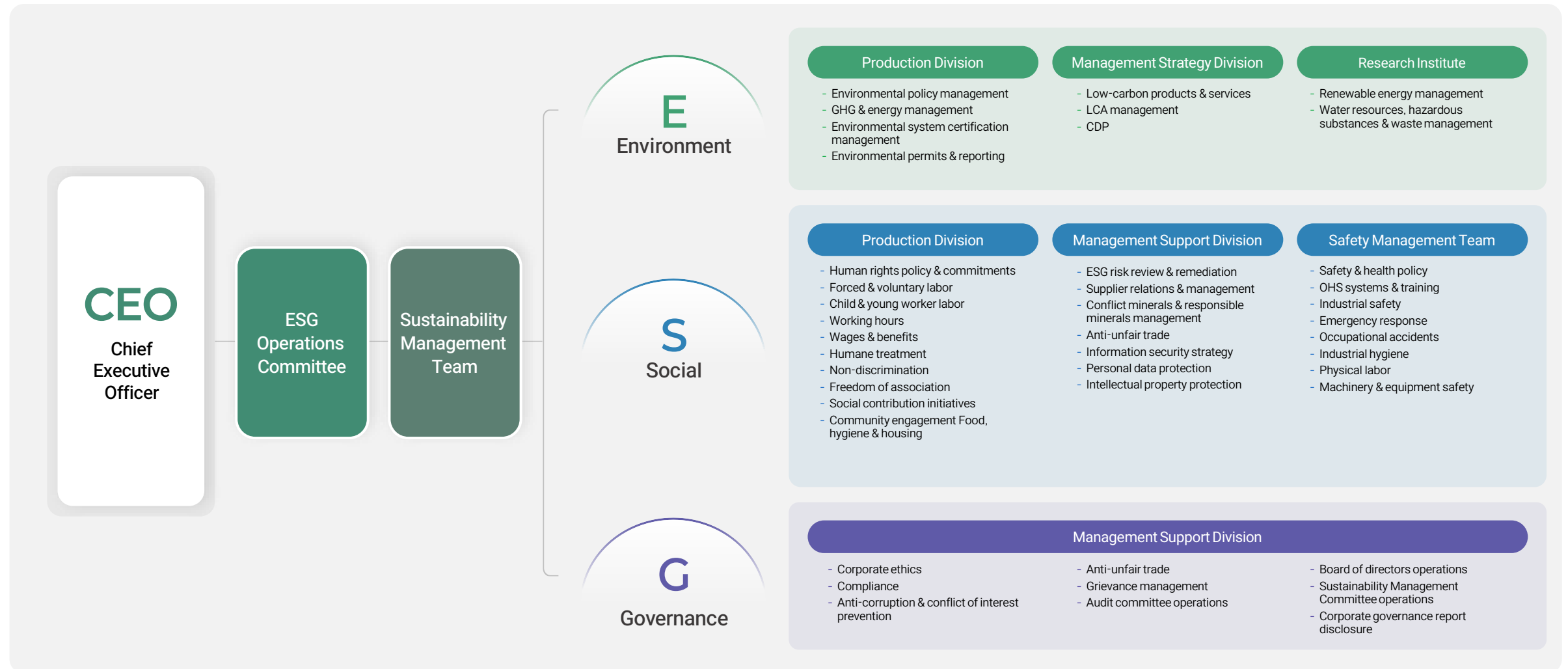
* GPTW (Great Place to Work)

* is a globally recognized workplace certification program that evaluates corporate culture across five criteria: trust, respect, fairness, pride, and camaraderie.

Common: Advance ESG management systems; establish eco-friendly business framework (circular economy realization, expansion of carbon-neutral products)

ESG Governance

Heesung Catalysts operates an ESG consultation structure to enhance the efficiency of sustainability management and enable swift decision-making. A dedicated ESG organization and working-level consultative bodies for each key area are in place to ensure the smooth execution of ESG activities.



ESG Management Roadmap

Heesung Catalysts has charted a clear path to its 2030 ESG goals through a three-phase roadmap. Each phase builds toward a future defined by sustainable growth, environmental stewardship, and social responsibility.

• By 2025

• By 2027

• By 2030

Establish ESG Management Framework



- Build ESG management framework
- Establish implementation foundation by ESG area
- Company-wide dissemination of ESG management culture
- Develop carbon neutrality roadmap
- Publish sustainability report

Advance ESG Management Capabilities



- Advance ESG management framework
- Advance environmental & safety management systems
- Advance human rights & ethical management
- Advance LCA/CDP response framework
- Implement carbon neutrality roadmap

Internalize ESG Management



- Internalize ESG management framework
- Join ESG initiatives (information security, energy, anti-corruption, RE100, etc.)
- Achieve GHG reduction targets
- Obtain Korea Institute of Corporate Governance and Sustainability rating (AA)
- Implement carbon-neutral New Business

2030

Meet ESG Targets



ESG Targets

GPTW
80 points

Zero-
accident
workplace

Korea Institute
of Corporate
Governance
and
Sustainability
Rating
AA

* GPTW (Great Place to Work)

* A global corporate culture assessment system that certifies 'great workplaces' based on five criteria: trust, respect, fairness, pride, and camaraderie.

Stakeholder Communication

Stakeholder Engagement

Heesung Catalysts continuously operates a variety of communication activities to systematically understand the concerns and expectations of key stakeholders, including customers, suppliers, employees, and local communities. Feedback received is thoroughly reviewed internally and reflected in future sustainability management policies, with ongoing efforts to build transparent and trust-based relationships. Regular stakeholder surveys, consultative meetings, and partner meetings are also conducted to strengthen mutual communication. Through this, the Company aims to meet stakeholder expectations and achieve co-growth based on long-term trust.

Stakeholder Group	Key Concerns	Heesung Catalysts' Response	Engagement Channels	Frequency
Shareholders & Investors (BASF)	- Portfolio diversification - Management risk oversight	- Business performance reporting via regular disclosures - Advancement of mid-to-long-term business strategy - Establishment of future value creation foundation	- General shareholders' meeting - Management disclosures - IR activities	Annual / Quarterly / As needed
Customers	- Product quality competitiveness - Transparent product information	- Collection and reflection of customer feedback - Sales & marketing activities	- Customer satisfaction surveys - In-person / remote consultation channels - Sales & marketing activities	As needed
Local Communities	- Enhanced environmental & safety practices - Local economic vitalization and social contribution	- Strengthened environmental & safety management at facilities - Operation of social contribution programs	Social contribution activities	As needed
Suppliers	- Mutual growth and technology collaboration - Prevention of unfair trade and corruption	- Technical and management support for partners - Prevention of unfair practices and corruption	Supplier on-site guidance visits	Annual / As needed
Government	- Legal and regulatory compliance - Carbon neutrality transition across environmental industries	- Communication with government and related agencies - Prevention of unfair practices and corruption	- Participation in government consultative meetings - Engagement in government policies and investment initiatives	As needed
Employees	- Improved working environment and organizational culture - Capability development	- Welfare enhancement and organizational culture improvement initiatives - Job and leadership capability development programs	- Labor-management council - Industrial Safety & Health Committee	As needed

Stakeholder Feedback



Environmental

- Reduction of GHG emissions in manufacturing processes
- Expansion of eco-friendly energy use
- Introduction of assessments for regulatory compliance



Social

- Strengthening mutual growth through community collaboration
- Expansion of ESG strategy with suppliers



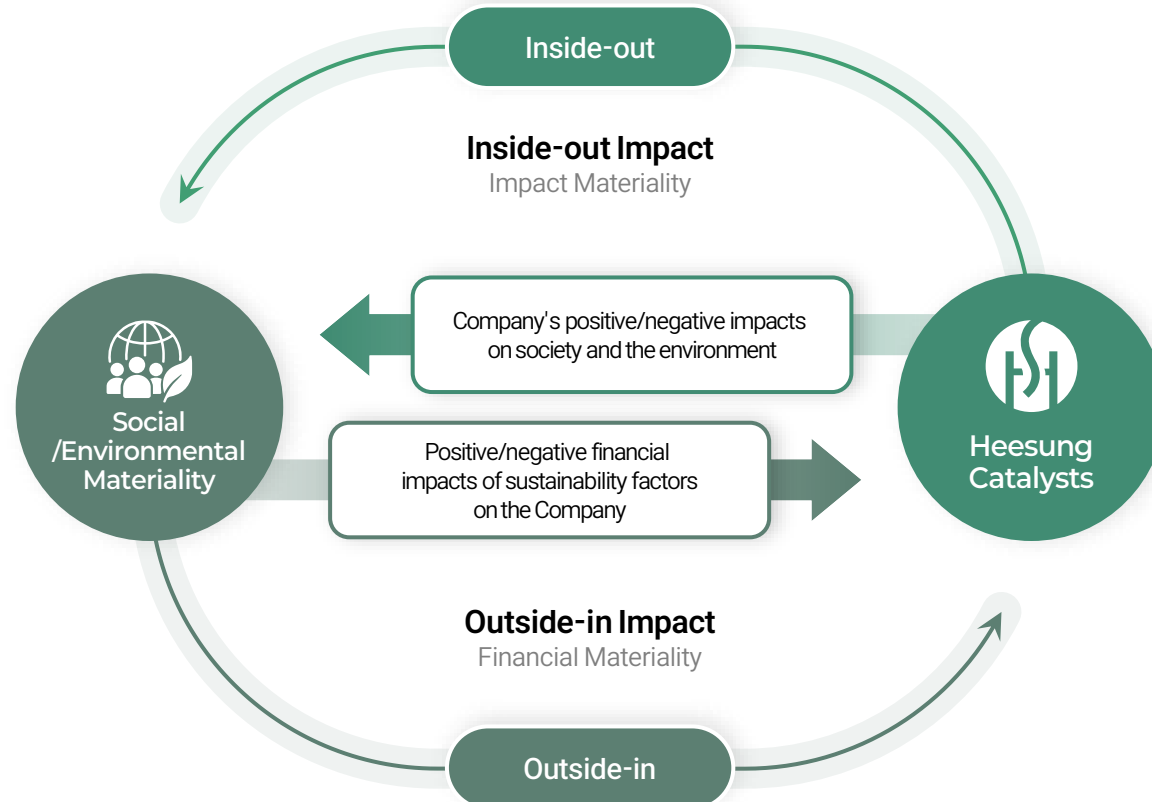
Governance

- Strengthening the ESG management framework
- Transparent ethical and fair management

Double Materiality Assessment

About Heesung Catalysts' Double Materiality Assessment

Through the Double Materiality Assessment (DMA), Heesung Catalysts clearly identifies stakeholder concerns and expectations, derives material sustainability issues that it must prioritize in its management and disclosures, and integrates these into its management strategy. The DMA reflects both the actual and potential impacts of Heesung Catalysts on the economy, environment, and society (inside-out), as well as the actual and potential financial impacts of the external environment on us (outside-in).



Assessment Process

Step 1 ESG Issue Pool Construction

International standards analysis

Analysis of ESG standard requirements (impacts, risks, opportunities)

Prior year report analysis

Review of prior year material and potential issues

Benchmarking

Analysis of ESG disclosure information from domestic and international peers

Media analysis

Media analysis of press releases and articles from 2025

Step 2 Double Materiality Assessment

Social/ Environmental Impact Assessment	Analysis of international standards/assessment indicators	Sources: GRI, KCGS, EcoVadis
	Media analysis	Analysis of ESG-related media coverage examining the environmental and social impacts of the automotive parts industry
	Benchmarking	Analysis of ESG disclosures from domestic and international peers
	Heesung Catalysts management strategy	Review of alignment with Heesung Catalysts' management strategy and sustainable growth direction
	Stakeholder Engagement	Internal stakeholder engagement and analysis of findings
+		
Financial Impact Assessment	Analysis of international standards/assessment indicators	Sources: GRI, KCGS, EcoVadis
	Legal & regulatory analysis	Analysis of relevant laws and regulations in consideration of industry-specific characteristics
	Investor interest analysis	Analysis of ESG disclosure information from Heesung Catalysts' key investors
	Stakeholder engagement	Internal stakeholder engagement and analysis of findings

Step 3 DMA Results & Stakeholder Communication



Synthesis of socio-environmental and financial impact analysis to derive prioritized issues



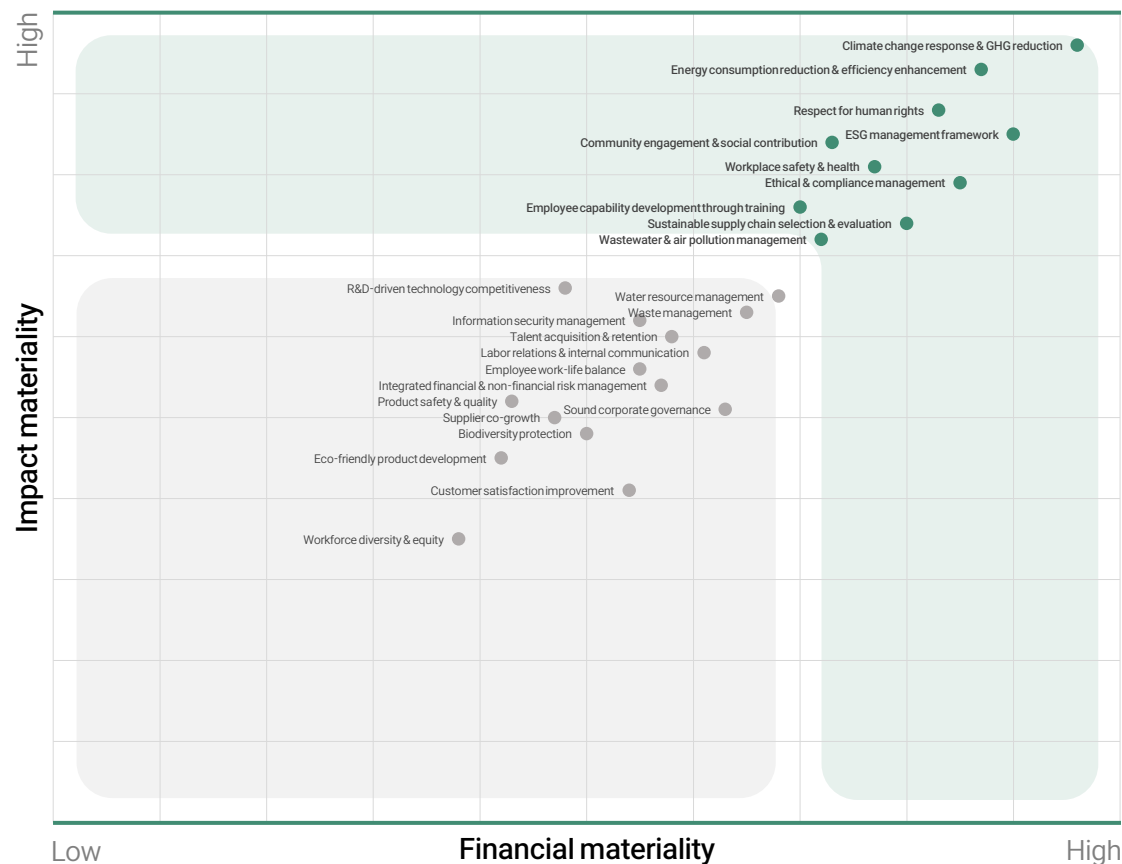
Final selection of core material issues: DMA results reported to the Board of Directors

Double Materiality Assessment

Double Materiality Assessment Results

Heesung Catalysts selected 10 material issues, including climate change response and GHG reduction, energy consumption reduction and efficiency enhancement, respect for human rights, and the ESG management framework, after considering both environmental/social impact materiality and financial materiality.

Matrix



Double Materiality Assessment Details

	Material Issues	Potential Issues
E 	- Climate change response & GHG reduction - Wastewater & air pollution management - Energy consumption reduction & efficiency enhancement	- Water resource management - Waste management - Biodiversity protection - Eco-friendly product development
S 	- Sustainable supply chain selection & evaluation - Workplace safety & health - Respect for human rights - Employee capability development through training - Community engagement & social contribution	- Talent acquisition & retention - Employee work-life balance - Supplier co-growth - Workforce diversity & equity - Customer satisfaction improvement - Labor relations & internal communication - Information security management - R&D-driven technology competitiveness - Product safety & quality
G 	- Ethical & compliance management - ESG management framework	- Sound corporate governance - Integrated financial & non-financial risk management

Double Materiality Assessment

Material Issues Management Strategy

Material Issues	Rationale & Impact	Heesung Catalysts' Response Strategy	Key Outcomes & Activities	GRI Indicators	Report Location
Climate change response & GHG reduction	As carbon neutrality has emerged as a major policy and industry trend globally, electricity and thermal energy used in catalyst manufacturing processes are primary sources of GHG emissions. Proactive response to customers' supply chain decarbonization requirements and regulations such as RE100 and CBAM is necessary, directly affecting Heesung Catalysts' external credibility and order competitiveness.	Process optimization to improve energy use efficiency: expansion of high-efficiency equipment and LED lighting; electricity and steam consumption reduction planning. Setting mid-to-long-term carbon reduction targets and exploring membership in international initiatives such as RE100.	- Climate change TFT activities toward achieving carbon neutrality by 2050: gathered reduction ideas and derived action items by production process and business division. - Achieved CDP rating 'B'.	GRI 302 (1-4) GRI 305 (1-5)	p.26-30
Wastewater & air pollution management	Wastewater, dust, and hazardous air pollutants (VOCs) generated in catalyst production can negatively impact nearby communities and the environment. The operational efficiency of zero-discharge wastewater systems and abatement facilities affects legal compliance and corporate image, and is also a critical factor in building social trust with local residents. Environmental complaints due to air- and water-related issues can escalate into management risks.	Operation of zero-discharge wastewater facilities and expansion of recirculation reuse rates: enhanced performance of air pollution abatement equipment and expansion of VOC reduction equipment. Continuous compliance monitoring through regular environmental measurements and in-house monitoring systems.	- Maintained dust collection facility efficiency above 98%. - Expanded wastewater treatment capacity. - Implemented resource recycling through deionized water reuse.	GRI 303 (1-5) GRI 305 (6-7)	p.31-33
Energy consumption reduction & efficiency enhancement	In catalyst manufacturing, energy efficiency is directly linked to cost reduction and GHG emission reductions. With rising energy prices and changes in domestic and international energy policy, improving energy self-sufficiency and transitioning to high-efficiency equipment are emerging as core competitiveness strategies. Closely tied to customers' carbon neutrality requirements and business scalability.	Identification of major energy-intensive processes based on energy audit results and transition to high-efficiency equipment. Improvement of energy intensity through process automation and operational optimization. Exploring introduction of FEMS (Factory Energy Management System). Exploring ISO 50001 certification.	- Process optimization and introduction of high-efficiency equipment. - Improvement of 3 major energy-intensive facilities. - Established energy consumption inventory.	GRI 302 (1-4)	p.28
Sustainable supply chain selection & evaluation	Environmental and human rights risks associated with precious metal raw materials and supply instability are increasing. Global customers' demands for supply chain transparency are rising, and the level of ESG management applied to suppliers affects the overall sustainability of the company. Proactive mitigation of risks such as unfair trade, environmental violations, and human rights abuses is considered essential to building a trust-based supply chain.	Operation of ESG self-assessment items for suppliers and provision of results-based feedback. Proactive screening of supply chain risk factors (environmental, human rights, ethical) and on-site due diligence of high-risk suppliers. Expansion of fair trade and integrity contract agreements.	- Achieved 100% of supplier ESG evaluation targets. - Conducted fair trade training. - Strengthened sustainable logistics framework.	GRI 308 (1-2) GRI 414 (1-2)	p.46-47
Workplace safety & health	Handling of chemical substances and operation of high-temperature/high-pressure equipment in catalyst manufacturing carry the potential for serious accidents. With strengthened regulations (e.g., the Serious Accidents Punishment Act), safety management has become a core element of management stability. Protecting workers' lives and health, preventing production disruption risks, and embedding a safety culture within the organization are fundamental to corporate sustainability.	Strengthened safety & health risk assessments in response to the Serious Accidents Punishment Act: systematic identification and remediation of hazardous risk factors. Enhanced workplace environment measurement and protective equipment suitability checks: assessment of contractor safety management levels and joint training.	- Zero serious accidents and industrial accidents. - Targeted management for high-risk employee groups. - Implementation of serious accident prevention activities and SAFETY DAY.	GRI 403 (1-9)	p.40-45
Respect for human rights	Respect for human rights has become a universal management principle across global supply chains. Labor conditions at suppliers, discrimination, forced labor, and child labor are directly linked to customers' ethical clauses, and human rights due diligence across Heesung Catalysts' internal operations and supply chain is emerging as an essential element of sustainable business operations.	Establishment and revision of human rights policies and codes of conduct: conducted human rights impact assessments. Operations of investigation and corrective action systems focused on key risk areas including forced labor, discrimination, and workplace harassment. Regular company-wide human rights training.	- Conducted human rights impact assessment. - Carried out investigations focused on key human rights risk items. - Regular company-wide human rights training completion rate: 100%.	GRI 401	p.37-39
Employee Capability Development through Training	In the technology-driven catalyst manufacturing industry, securing skilled personnel and transferring technical expertise are critical to maintaining competitiveness. As generational turnover and workforce aging occur, systematic role-based training and talent development are required, and a culture of continuous learning also contributes to organizational agility and process stability.	Operation of competency model-based training programs by job function: establishment of new in-house technical training courses for production staff. Expansion of e-learning content to enhance process comprehension. Internalization of company-wide training including leadership and ethics.	- Established role- and level-based training framework and roadmap. - Conducted leadership capability enhancement training. - Conducted job competency enhancement training.	GRI 404 (1-3)	p.52-53
Community engagement & social contribution	Corporate coexistence with local communities contributes to non-financial performance and reputation building. Community engagement and contribution generate a range of positive outcomes including pre-emptive prevention of complaints, talent attraction, and social value creation, while also building internal and external trust in the company's sustainability management.	Community-tailored social contribution strategies: expansion of voluntary activities including environmental clean-ups and support for underprivileged groups. Collaborative projects with local organizations and institutions.	- Supported local community events. - Conducted employee charity walking campaign donations. - Delivered year-end gift packages to those in need.	GRI 413 (1-2)	p.58
Ethical & compliance management	Establishing anti-corruption and compliance frameworks is a baseline requirement for global transactions and customer relationships. Proactive management of legal and ethical risks serves as a measure of corporate credibility and risk management capability. Internal whistleblowing systems, ethical regulations, and fair trade compliance are directly reflected in ESG assessments and investor evaluation criteria.	Operation of a dedicated compliance organization: annual ethics and fair trade training for all employees. Operation of anonymous internal whistleblowing system and protective mechanisms: proactive review of corruption risk items and preparation of response manuals.	100% completion rate for ethics and compliance training. - Zero corruption and ethics-related reports. - Initiated pursuit of ISO 37301 and ISO 37001 certifications.	GRI 205 (1-3) GRI 206-1	p.60-62
ESG management framework	As ESG has emerged as a core management criterion across all business operations, strategic target setting, implementation management, and a disclosure framework are directly linked to the company's long-term sustainability. Companies with robust systems including ESG committees, KPI management, and company-wide training are more likely to receive positive evaluations from the market and investors.	Establishment of an ESG committee with quarterly operations for ESG KPI setting and management. Review of implementation status by business division and identification of improvement areas. Regular publication of ESG reports and establishment of disclosure and data management systems for external evaluation.	- Held ESG Operating Committee meetings. - Published ESG report.	GRI 2-12, 13	p.14-16

ESG Highlights

2025 Key ESG Performance

Building on its ESG management framework for sustainable growth, Heesung Catalysts is advancing management capabilities across all environmental, social, and governance dimensions. The Company is advancing environmental management to address climate change and sharpen the competitiveness of its eco-friendly products, while at the same time strengthening its social responsibility commitments through more robust safety, human rights, and supply chain management frameworks. Additionally, it is internalizing ethics and compliance-based management to build a transparent and accountable management framework.

Environmental



Advancing environmental management to strengthen carbon neutrality foundations and eco-friendly product competitiveness

Social



Fulfilling social responsibilities through strengthened safety/human rights and supply chain management systems

Governance



Building a transparent management framework grounded in ethics and compliance, and spreading a compliance culture throughout the organization

Climate Change Action

- Established 2030 GHG reduction plan, laying the foundation for mid-to-long-term carbon reduction implementation
- Strengthened renewable energy transition framework through K-RE100 membership
- Conducted Life Cycle Assessment (LCA) on key products, advancing product environmental impact management systems

Eco-friendly Technology and Air Quality Management

- Developed eco-friendly raw materials to strengthen sustainable product competitiveness
- Participated in PM reduction voluntary agreement to drive air pollutant reduction activities

Enhanced Safety, Health & Human Rights Management

- Received Siheung Fire Chief commendation in recognition of contribution to safety management excellence
- Established a human rights management system to build a human rights risk management foundation across all workplace operations
- Conducted human rights and ethics due diligence at facilities for risk review and remediation activities
- Zero grievances recorded through grievance handling procedure operations

Sustainable Supply Chain Management

- Strengthened supply chain sustainability management to advance partner ESG response and management systems

Internalizing Compliance & Ethical Management

- Established a compliance management system to build a framework for preventing compliance risks
- Continuously strengthened the systems and operational processes for internalizing ethics and compliance awareness
- Conducted transparent ethics training for all employees to spread an ethical management culture

2025 ESG Assessment Results

Through external ESG assessments and due diligence, Heesung Catalysts objectively evaluates its sustainability management performance and continuously strengthens its management systems to meet the requirements of key stakeholders. Efforts in core areas such as climate change response, supply chain ESG management, and ethical management are reflected in domestic and international assessment outcomes, and the Company plans to continue its improvement activities to enhance ESG competitiveness.



B

ecovadis



Top 7%
(Global)

HYUNDAI
MOTOR GROUP

Hyundai Motor/Kia Supply Chain
ESG Due Diligence

Top
1.3%

KODATA

LEVEL
2

CHAPTER 03

Environmental

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Environmental Management

Environmental Management Framework

Heesung Catalysts places environmental protection as its highest priority and endeavors to minimize its environmental impact. The Company manages air pollutant emissions using enhanced internal standards, and works to reduce pollutants through eco-friendly process improvements and continuous monitoring. In addition, the Company practices waste minimization and expanded recycling, improve the efficiency of energy and raw material use, and has established and is implementing mid-to-long-term targets for carbon emission reduction and climate change response.

Vision

Leading a sustainable, Eco-friendly Future Together with Customers, Employees, and Society.

Objectives

Continuously eliminate environmental impacts and hazards to minimize environmental impact

Comply with applicable environmental regulations while driving improvements in environmental performance

Strategic Directions



Establish and implement carbon neutrality goals

GHG emission reduction through energy consumption cuts and renewable energy procurement



Comply with environmental regulations and stakeholder requirements

Compliance with environmental regulatory implementation roadmap

Response to ESG environmental assessments



Drive environmental performance and continuously improve

Reduction of water intake and wastewater generation

Reduction of air pollutant emissions

Waste reduction and increased recycling

Reduction of chemical substance emissions

Strategic Tasks

Environmental Management Policy

Heesung Catalysts has established an environmental management policy to continuously improve environmental performance through eco-friendly business practices and to minimize negative environmental impacts across all business activities and the value chain. Recognizing the importance of environmental issues, the Company communicates with diverse stakeholders, including employees, suppliers, and local communities, and advances environmental management in alignment with its core business strategy.

Environmental Management Policy

- 1 Set and implement carbon neutrality targets to address climate change.
- 2 Strive to minimize environmental impacts across the entire product lifecycle, from development and production to end-of-life disposal.
- 3 Share environmental management performance with employees and stakeholders and continuously improve.
- 4 Comply with environmental regulations and fulfill corporate social responsibility.

Scope of Application

Supply Chain | Procurement and sourcing processes

Distribution Network | Logistics and delivery

Facilities | Production and manufacturing processes

New Businesses & Projects | Product development and services

Environmental Principles by Category

Raw & Auxiliary Materials

- 1 Efficient use of raw & auxiliary materials
- 2 Recycling of production waste
- 3 Inspection of raw material sourcing locations
- 4 Forest resource protection
- 5 Prevention of improper disposal

Waste

- 1 Optimization of waste treatment
- 2 Increase waste recycling rate
- 3 Waste-to-resource conversion

Water

- 1 Water recycling
- 2 Water use reduction
- 3 Municipal water source monitoring

GHG

- 1 Facility-level reductions
- 2 Supply chain reductions
- 3 Product & service reductions

Energy

- 1 Pursue energy reduction
- 2 Renewable energy utilization
- 3 Operate energy management system

Local Communities

- 1 Community impact management and stakeholder communication

Hazardous Substances

- 1 Hazardous substance management

Environmental Management

ISO 14001 Certification

Heesung Catalysts operates an environmental management system at a global standard and is committed to a sustainable future. Since obtaining ISO 14001 certification in 2000, the company has comprehensively monitored and managed its facilities in compliance with the international standard each year.

In May 2025, the Company successfully completed the ISO 14001 surveillance audit, maintaining certification across all domestic facilities. In addition, it plans to introduce a systematic training curriculum and operate a team-based environmental management expert development program to further improve environmental performance.

The goal is to build a team of knowledgeable, accountable people who can drive meaningful progress toward the Company's environmental targets across the organization.



Certification by Facility

No	Facilities	Certification	Valid Until
01	Sihwa Plant	ISO 14001	22 May 2027

ISO 14001 Adoption Rate

Category	2023	2024	2025
Adoption Rate	100 %	100 %	100 %

Environmental Training

Heesung Catalysts recognizes the importance of environmental responsibility and conducts systematic environmental training to put this commitment into practice. Annual training programs for new hires emphasize the importance of environmental protection and sustainability, enabling employees to understand and practice the values of environmental management.

Additionally, each facility conducts regular annual environmental training for on-site personnel. This training covers specific measures to minimize the environmental impact of business activities and to comply with legal regulations and the company's environmental targets.

Heesung Catalysts will continue to foster an eco-friendly corporate culture through company-wide environmental training, strengthen trust with stakeholders, and achieve sustainable growth.

2025 Environmental Training Overview

No	Training Program	Participants	Hours (hr)
01	Integrated Environmental Management Practical Course	1	8
02	General Water Quality Environmental Engineer	2	14
03	Advanced Air Quality Environmental Engineer	2	28
04	Hazardous Chemical Substance Manager - Statutory Training	1	16
05	Integrated Environmental Management Supervisor-Statutory Training	1	40

Environmental Management

Environmental Risk Review

Heesung Catalysts assesses risks and opportunities associated with a range of environmental issues, including resource circularity and tightening environmental regulations. Environmental risk and opportunity factors are reviewed through an investment review checklist and reflected in investment decision-making, enabling proactive environmental risk and opportunity management.

Environmental Regulatory Violations and Corrective Actions

Category	Unit	2023	2024	2025
Violations	Cases	0	0	0
Fines	KRW thousand	0	0	0

Environmental Incident Response & Prevention

Heesung Catalysts has established environmental incident response guidelines and operates a rapid and effective response system. In the event of a serious environmental incident, management is notified immediately: spill response materials are stationed at each site and regular drills are conducted to strengthen response capabilities. A real-time monitoring system utilizing CCTV and sensors has been established to ensure thorough incident prevention and response, thereby maintaining a safe production environment.



Backwash integrated flowmeter and pH display panel installation



Environmental risk review activities (monthly)

Emergency Preparedness Training

To ensure the effective application of emergency response plans in the event of an environmental emergency, company-wide regular training is conducted semi-annually. Training covers the sharing of emergency response plans for various scenarios, organizational charts, and individual roles. It also provides information on emergency response protocols and equipment usage. Training is conducted in conjunction with emergency response drills, and any issues identified during drills and training are reviewed and used to revise emergency response plans as necessary. Through these activities, the Company continuously strengthens employees' emergency response capabilities.

Training sessions were conducted twice annually, in the first and second halves of each year, with the participation of all employees.



Resource Circularity & Environmental Impact Management

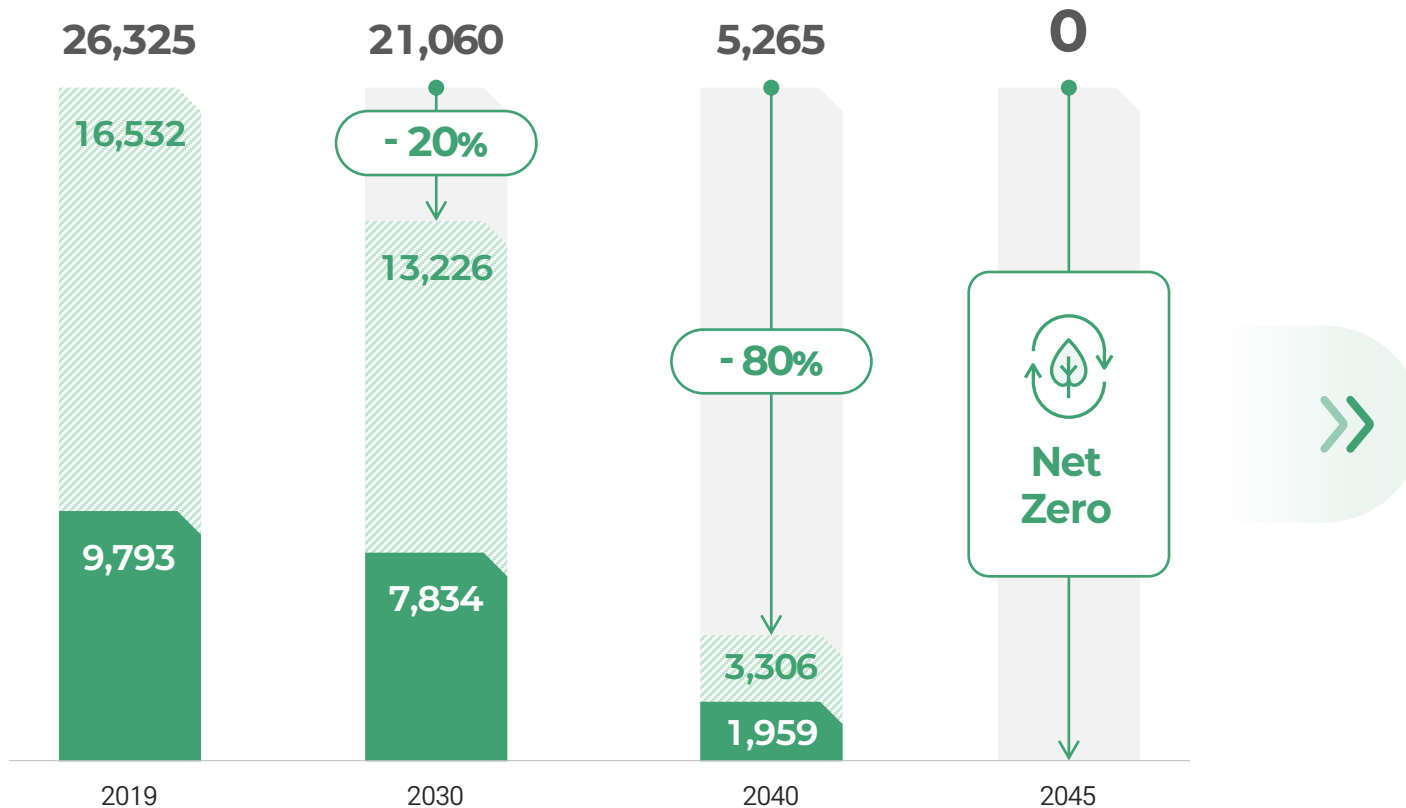
Heesung Catalysts has set a target of achieving carbon neutrality by 2045 in active response to climate change, and has established key implementation priorities and a mid-to-long-term roadmap to realize this goal.

As a leader in eco-friendly management, the Company is committed to faithfully executing its decarbonization initiatives in line with its carbon neutrality strategy to build a sustainable future.

Heesung Catalysts - Achieving Carbon Neutrality by 2045

GHG Emission Reduction Roadmap

[Unit: tons] ● Scope 1 ● Scope 2



Energy Management

- Build GHG inventory system
- Company-wide energy reduction activities (new methods / processes)
- Establish energy management system



Resource Recycling

- Apply renewable energy (solar, REC)
- Waste recycling
- Raw material reuse
- Eco-friendly raw material supply chain management



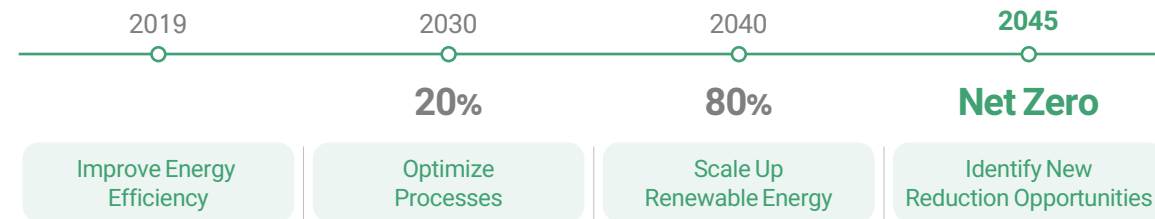
Eco-friendly Product Development

- Apply eco-friendly product design process
- Eco-friendly material adoption
- Conduct LCA

Climate Change

Carbon Neutrality Roadmap

Using 2019 as the baseline year, Heesung Catalysts is pursuing absolute GHG emission reductions of 20% by 2030 and 80% by 2040, with a target of achieving carbon neutrality by 2045. To achieve this, the Company plans to implement reduction activities in phases, focusing on energy efficiency improvements, equipment operational optimization, expansion of renewable energy, process improvements, and identification of low-carbon transition initiatives.

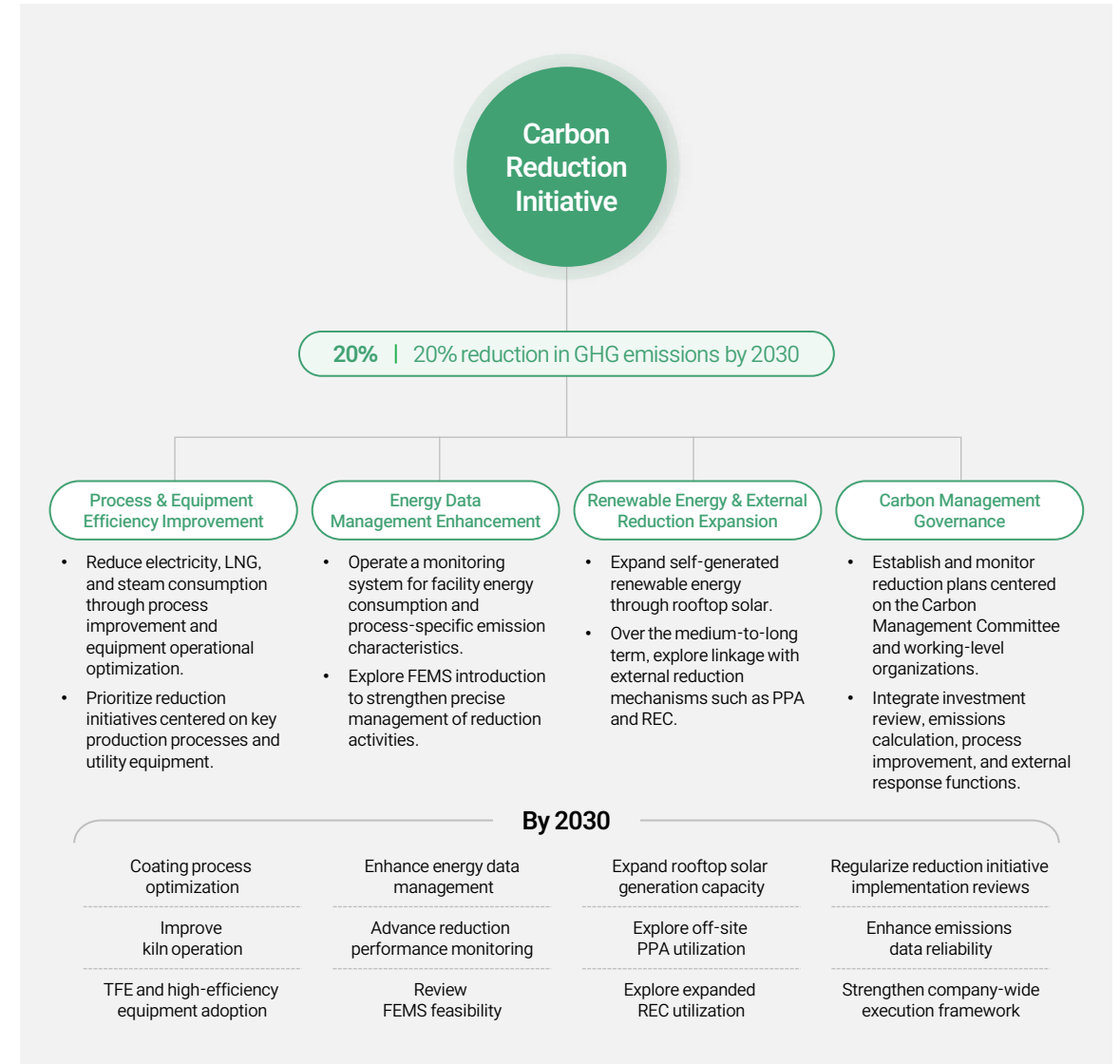


‘20% GHG Reduction by 2030’

Heesung Catalysts has formulated a mid-to-long-term strategy for climate change response and carbon neutrality, and is pursuing a phased implementation toward a 20% reduction in GHG emissions by 2030 relative to the 2019 baseline. The Company is building a tangible foundation for reductions at its Sihwa Plant through energy efficiency improvements, equipment operational optimization, expanded renewable energy utilization, and review of external reduction mechanisms.

A Carbon Management Committee and working-level Working Groups are responsible for identifying reduction initiatives, reviewing investments, and monitoring implementation progress. Energy consumption and emission characteristics by process are analyzed to prioritize reduction activities.

Heesung Catalysts will focus first on expanding its internal reduction activities, while progressively linking renewable energy procurement and external reduction mechanisms over the medium-to-long term to build the execution capability needed to deliver on its 2030 targets.



Climate Change

Heesung Catalysts is actively reducing its carbon footprint with carbon neutrality as its long-term destination. The Company is continuously investing in R&D to develop cleaner products and new technologies that cut energy use and raw material consumption across its production processes.

GHG Emissions Management

Heesung Catalysts has installed meters on individual pieces of equipment for real-time monitoring of GHG emissions and energy consumption. GHG and energy reduction targets and performance are systematically managed, and third-party verification is obtained to ensure the reliability of environmental data. Every month, electricity, gas, water, and oil consumptions are analyzed to set concrete reduction targets and pursue strategic improvements. These efforts steadily build the energy management framework that will define the Company as a global leader in carbon neutrality.

Heesung Catalysts GHG Emissions (Scope 1&2)
 * Organizational boundary: Sihwa facility

Category	Unit	2023	2024	2025
Total Emissions (Scope 1 + 2)	tCO2-eq	23,868	24,981	26,637
Direct Emissions (Scope 1)	tCO2-eq	8,637	8,873	8,968
Indirect Emissions (Scope 2)	tCO2-eq	15,231	16,108	17,669

Energy Consumption

Category	Unit	2023	2024	2025
Electricity	MWh	32,401	34,101	37,211
LNG	1,000 m³	3,073	2,847	2,934
Steam	ton	5,463	6,972	8,973

GHG and Energy Management Strategies and Reduction Initiatives

Sustainable environmental management at Heesung Catalysts starts with disciplined energy management. The Company monitors monthly consumption of electricity, steam, and LNG, translating that data into actionable energy management plans. Alongside investments in high-efficiency equipment, process improvements, and expanded renewable energy, the Company is deploying smart energy management systems to optimize how energy is used across its operations. Through employee training and company-wide campaigns, Heesung Catalysts is embedding a low-carbon mindset throughout the organization and steadily expanding its eco-friendly management practices.

Category	Initiative	Description
Energy Management	Build GHG inventory system	Establish a GHG calculation inventory system
	Company-wide energy reduction activities (new methods/processes)	Review and apply energy-reduction methods and equipment (including internal energy reduction campaigns)
	Establish energy management system	Obtain energy management system certification
Resource Recycling	Apply renewable energy (REC, PPA, solar)	Review and apply REC and PPA options
	Waste recycling	Review waste recycling options
	Raw material reuse	Review raw material reuse options
	Eco-friendly raw material supply chain management	Establish eco-friendly raw material supply chain system
Eco-friendly Product Development	Apply eco-friendly product design process	Design products and processes to reduce carbon emissions
	Eco-friendly material adoption	Apply low-carbon eco-friendly materials from the design stage
	Company-wide LCA application	Establish a process to minimize carbon emissions per product across the full lifecycle (raw materials → design → production → end-of-life)

Climate Change

Scope 3 Emissions Quantification

In order to systematically manage the GHG impacts of its overall business activities, Heesung Catalysts has quantified Scope 3 emissions: indirect emissions within the value chain. Scope 3 encompasses emissions that are not directly owned or controlled by Heesung Catalysts but are associated with its operations, including raw material procurement, transportation, waste treatment, employee travel, and downstream processing of sold products.

Considering the Company’s business characteristics and data availability, emissions were quantified across key categories including purchased raw and auxiliary materials, capital goods, fuel- and energy-related activities, transportation, waste, employee business travel and commuting, upstream leased assets, and downstream transportation, distribution, and processing of sold products. Total Scope 3 emissions for the reporting year are 1,406,243 tCO2-eq.

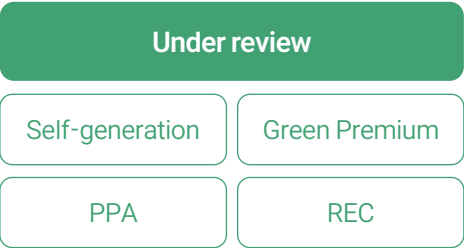
Based on these results, Heesung Catalysts plans to continuously manage its major emission sources and progressively identify reduction opportunities across the supply chain and operations. The Company will also advance its data management systems to continuously improve the accuracy and reliability of Scope 3 emissions quantification.

Stream			Emissions (tCO2-eq)
Upstream	① Purchased goods and service	Production stage of purchased raw & auxiliary materials	1,388,371
	② Capital goods	Full lifecycle of PC and peripheral equipment purchases (excluding use stage)	83
	③ Fuel-and energy-related activities (not included in scope1 or scope2)	Production stage of purchased energy fuels	3,307
	④ Upstream transportation and distribution	Transportation stage of raw & auxiliary materials	12,622
	⑤ Waste generated in operations	Calculated by waste treatment method	2
	⑥ Business travel	Use stage of travel transportation	69
	⑦ Employee commuting	Employee commute	348
	⑧ Upstream leased assets	Upstream leased assets	46
Downstream	⑨ Downstream transportation and distribution	Downstream transport & distribution stage	800
	⑩ Processing of sold products	Processing of sold products	594
Total			1,406,243

Renewable Energy Utilization

Heesung Catalysts is exploring expanded renewable energy utilization as a key course of action for GHG reduction and energy transition. The Company is reviewing the feasibility of renewable energy adoption based on the facility’s energy use structure and operational characteristics, and is exploring indirect emission reduction options linked to electricity consumption in connection with mid-to-long-term reduction targets.

Renewable Energy Transition Pathway



K-RE 100 membership



Heesung Catalysts launched the Safety 100 Project to make sure every single employee can come to work without worry. The program was built around action: proactively finding and eliminating hazards before they cause harm, and embedding safety not as a set of rules to follow but as a natural part of how everyone works. Through phased activities covering company-wide training, field practice, self-inspection, and evaluation, the Company systematically deployed foundational safety activities, hazard assessments, emergency response drills, and on-site inspections. Joint labor-management inspections and a collective resolution signing reinforced a shared commitment to safety across the organization. Building on this foundation, Heesung Catalysts will continue working to cultivate a genuinely self-sustaining safety culture, and to make a zero-accident workplace a reality.

Climate Change

Eco-friendly Logistics (DHL GoGreen Plus)

Heesung Catalysts is participating in the DHL GoGreen Plus program to reduce carbon emissions generated in logistics processes. Through this program, the Company systematically manages the environmental impact of product transportation stages and aims to strengthen carbon management across the supply chain. With Scope 3 emissions management becoming an increasingly critical priority, Heesung Catalysts is building sustainable supply chain operations on a foundation of eco-friendly logistics partnerships. Going forward, the Company plans to further strengthen its emission reduction efforts by expanding low-carbon logistics options and deepening collaboration with suppliers.



Smart LED Lighting System

Heesung Catalysts has introduced a smart LED lighting system at its facilities to simultaneously advance energy efficiency improvements and GHG emission reductions. The system minimizes unnecessary power consumption through automatic control functions based on usage environments and patterns, and is expected to deliver annual electricity savings of approximately 360,000 kWh or more and GHG emission reductions of approximately 169 tons. The Company plans to continue expanding high-efficiency equipment adoption and operational optimization to improve energy use efficiency and systematically reduce the environmental impact of its facilities.



Automotive Supply Chain Carbon Reduction Agreement

Heesung Catalysts has participated in a mutual cooperation agreement for carbon emission reduction within the automotive industry supply chain, strengthening the foundation for collaboration with customers and partners. Through this initiative, the Company is building a product carbon footprint management framework and pursuing expanded application of low-carbon materials and processes to drive carbon reduction activities across the supply chain. The Company's goal is to continuously strengthen climate change response capabilities in collaboration with key stakeholders and build a sustainable cooperative ecosystem that meets global supply chain standards.



Resource Circularity & Environmental Impact Management

Heesung Catalysts recognizes as serious concerns the global issues of water scarcity, air pollution, water contamination, and ecosystem challenges. Accordingly, the Company strives to reduce the environmental impact of waste, hazardous chemicals, and air pollutants across all stages of its business activities.

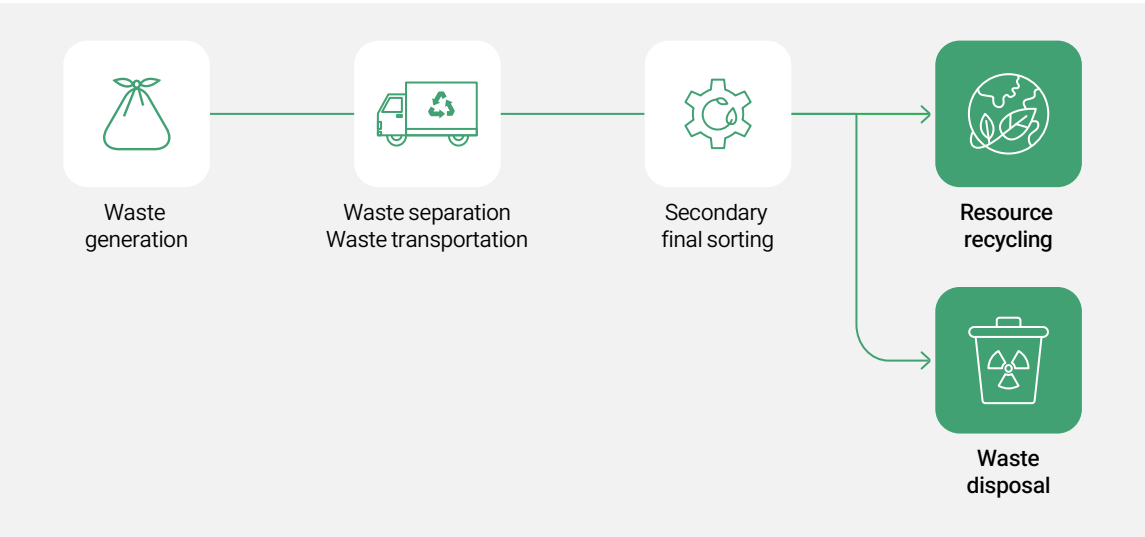
Waste Management Process

Heesung Catalysts is committed to waste management for resource circularity and environmental protection. The Company operates its own wastewater treatment plant to rigorously manage process-generated wastewater, thereby minimizing the environmental impact of effluent.

All waste is classified and treated in accordance with legal standards: recoverable resources are extracted to the maximum extent possible to improve resource efficiency, and unavoidable waste is safely treated to minimize environmental impact. Each facility monitors waste generation volumes through regular waste management inspections and establishes and implements waste reduction targets.

Through these waste management activities, Heesung Catalysts seeks to continuously reduce waste generation and contribute to the establishment of a circular resource economy.

Waste Disposal Process



Waste Management

Heesung Catalysts is committed to minimizing its environmental impact and advancing sustainable environmental stewardship. The Company also urges all employees to take responsibility for proper waste disposal and active source separation. Waste and defective products generated in manufacturing processes or recovered from customers are safely stored in designated waste storage areas, and recyclable waste, including scrap metal, is treated in an environmentally responsible manner through specialist recycling companies. The Company is also committed to continuously improving its recycling rate.

Category	Unit	2023	2024	2025
Total outsourced treatment volume	ton	409	429	474
General waste	ton	299	327	394
Designated waste	ton	110	102	80
Recycled volume	ton	91	53	83
Recycling rate	(%)	22.2 %	12.3 %	17.5 %

Resource Circularity & Environmental Impact Management

Hazardous Chemical Substance Management

Heesung Catalysts endeavors to minimize the use of hazardous chemical substances in manufacturing processes to create a safer manufacturing environment and supply safe products.

First, hazardous chemical substances are reviewed against the applicable regulatory list in accordance with the Hazardous Chemical Substance Management Guidelines, and are only received and used after obtaining the necessary approvals.

Second, Material Safety Data Sheets (MSDS) are maintained at locations where chemicals are used, and pre-task training is provided to employees who handle these substances to ensure safe use and handling.

Third, a designated manager is assigned to periodically inspect and manage the handling, storage, and use of chemical substances, ensuring systematic oversight of these activities. ISO 14001 internal audits are also conducted at least twice annually to check chemical substance usage and management.

Fourth, for employees handling hazardous substances, workplace environment measurements are conducted semi-annually in accordance with the Occupational Safety and Health Act, and special health examinations are conducted at least once per year for handlers.

Category	Unit	2023	2024	2025
Hazardous chemical substance emissions	kg	382	1,451	1,116

Air Quality Management

Heesung Catalysts prohibits the use of ozone-depleting substances at its facilities and suppliers to minimize environmental impact. Air pollutant emissions are managed within 80% of the legal limit, and monthly emission concentrations are monitored through the Company's safety and environmental computerized management system. In the event of an exceedance, the cause is analyzed and corrective measures are established following a management report to prevent recurrence. In anticipation of emission increases due to production facility expansion, the Company is pursuing the introduction of best available abatement technologies and management of abatement facility efficiency. The Company does so with the goal of continuously minimizing air pollutant emissions.

Category	Unit	2023	2024	2025
Dust	ton	1.6	1.6	1.4
Sulfur oxides	ton	1.4	0.3	0.2
Nitrogen oxides	ton	3.1	3.0	2.7
Total	ton	6.1	4.9	4.3

PM Reduction Voluntary Agreement

In response to societal demands for improved air quality, Heesung Catalysts has participated in a particulate matter (PM) reduction voluntary agreement. The Company has set a target of reducing nitrogen oxide (NOx) emissions to approximately 71% of permitted levels and is continuously pursuing environmental equipment improvements and process operational optimization. In addition, the Company is strengthening its air pollutant emission management framework to minimize environmental impact on local communities, and plans to continue advancing eco-friendly facility operations through sustained environmental investment and technological improvements.



Resource Circularity & Environmental Impact Management

Bio Friends MOU

Heesung Catalysts has signed a memorandum of understanding with BioFriends to develop catalysts for the production of clean fuels, thereby advancing its efforts to secure eco-friendly fuel technologies. Through this agreement, the two companies plan to jointly develop core catalyst technologies required for the transition to low-carbon fuels and explore opportunities for future commercialization. Building on this initiative, Heesung Catalysts is strengthening its capabilities to respond to the sustainable energy market and will continue to enhance its technological competitiveness in the eco-friendly fuel sector through a broad range of collaborative opportunities.



Clean Hydrogen R&D Innovation Alliance

Heesung Catalysts is participating in an R&D innovation alliance for clean hydrogen production and utilization technology development, strengthening its capabilities to respond to the eco-friendly energy transition. The Company is pursuing next-generation hydrogen technology acquisition through technology collaboration in water electrolysis and liquid organic hydrogen carrier (LOHC)-based technologies, thereby expanding its low-carbon technology portfolio. The Company plans to continue strengthening its R&D collaboration network to respond to changes in the clean energy market and secure a long-term growth foundation.



Water Resource Management

Heesung Catalysts operates a systematic water resource management policy to ensure efficient water use and minimize environmental impact. The Company pursues reduced wastewater generation, expanded reuse, and pollution prevention, directly operating its wastewater treatment plant to reduce discharge volumes, with secondary purification conducted at the Sihwa Wastewater Treatment Facility prior to final discharge.

The Company is also expanding in-process wastewater reuse and continuing facility improvements to reduce water consumption. Groundwater and municipal water consumption are monitored, with data-driven reduction targets established. Water conservation campaigns and training are conducted for employees to raise awareness. The Company will continue to strengthen its sustainable water resource protection activities.

Category	Unit	2023	2024	2025
Municipal water intake	ton	41,940	49,131	62,598
Municipal water consumption	ton	34,053	38,033	42,893
Wastewater discharge	ton	7,887	11,098	19,705
Wastewater generation rate	(%)	19	23	31

Biodiversity Impact Assessment

Locate (Identifying Interfaces with Nature)

Proximity-Based Impact Zones	0–5 km	Direct impact zone (areas adjacent to plant, where emissions can directly reach; water quality & air quality influence zone)	
	5–20 km	Extended impact zone (following watercourse flows and ecological migration routes)	
Nearby Ecosystems	Direct impact zone	Siheung Tidal Flat (Habitat for endangered species)	
	Extended impact zone	Daebudo Tidal Flat (Same marine ecosystem)	Ramsar wetlands
		Songdo Tidal Flat (Migratory bird route)	Internationally protected areas and Ramsar wetlands
		* Based on National Biodiversity Statistics.	

Ecologically protected areas within 20 km of the facility (*IBAT DATA MAP)



Evaluate (Dependency & Impact Assessment)

Category		Upstream			Organization	Downstream	
		Metal Feedstock	Chemical Feedstock	Power/ Fuel	Catalyst Manufacturing	Logistics	Customer Use
Dependency	Water Supply	Low	Low	Low	Very High	Low	Low
	Local Climate Regulation	Low	Low	Low	Medium	Low	Low
	Air Filtration	Low	Low	Low	Medium	Low	Low
	Soil and Sediment Retention	Low	Low	Low	Medium	Low	Low
	Water Flow Regulation	Low	Low	Low	High	Low	Low
	Flood Mitigation	Low	Low	Low	Low	Low	Low
	Storm Mitigation	Low	Low	Low	Medium	Low	Low
	Noise Attenuation	Low	Low	Low	Low	Low	Low
	Dilution by Atmosphere and Ecosystems	Low	Low	Medium	High	Medium	Low
Impact	Disturbances	Low	Low	Low	Very Low	Low	Low
	GHG Emissions	Low	Low	Medium	High	Low	Low
	Non-GHG Air Pollutants	Low	Low	Low	High	Low	Low
	Solid Waste Generation	Low	Low	Medium	High	Medium	Low
	Toxic Pollutants in Water and Soil	Low	Low	Low	High	Low	Low
	Volume of Water Use	Low	Low	Medium	Very High	Low	Low

Biodiversity Impact Assessment

Assess (Comprehensive Risk Assessment)

Category / Risk Item	Risk Description	Risk Level	Time Horizon
Physical Risk	Water Supply Instability	● Medium	Medium-term (3–5 years)
	Water contamination & wastewater management	● Low	Medium-term (3–5 years)
Transition Risk	Tightening water quality regulations	● High	Short-term (1–3 years)
	Tightening air pollution regulations	● High	Short-term (1–3 years)
	Tightening waste regulations	● High	Short-to-medium-term (1–5 years)
Operational Risk	Waste consignment risk	● Medium	Short-term (1–3 years)
	Environmental equipment failure	● High	Short-term (1–3 years)
Reputational Risk	Environmental incident	● Medium	Medium-term (3–5 years)
	Growing ESG demands	● Low	Medium-term (3–5 years)

Assess (Opportunity Analysis)

Category	Opportunity	Expected Effect	Time Horizon
Operational Efficiency	Expanded water reuse	Cost reduction, risk mitigation	Short-term (1–3 years)
Technology	Advanced wastewater treatment	Strengthened regulatory compliance	Medium-term (3–5 years)
Energy	Renewable energy transition	Carbon cost reduction	Medium-term (3–5 years)
Product	Eco-friendly catalyst development	Market competitiveness	Medium-to-long-term (3–10 years)
Supply Chain	Eco-friendly supply chain development	Strengthened ESG responsiveness	Medium-term (3–5 years)
Reputation	Enhanced environmental management	Improved investor and customer trust	Medium-term (3–5 years)

Prepare (Nature Capital Strategy)

Type	Initiative	Response Measures	Expected Effect
Avoid	High-risk process management	Strengthen pre-emptive management of processes susceptible to environmental incidents	Accident prevention
Reduce	Advanced wastewater treatment	Enhanced advanced treatment and monitoring	Water quality risk reduction
Reduce	Air pollution reduction	Improve emission abatement equipment	Air quality risk reduction
Reduce	Water use reduction	Process efficiency improvement and expanded reuse	Water risk reduction
Restore	Spent catalyst recycling	Resource recovery and reuse	Waste reduction
Transform	Eco-friendly process adoption	Transition to low-pollution processes	Strengthened ESG response
Transform	Renewable energy utilization	Improved energy structure	Carbon risk reduction
Governance	Supply chain management	Strengthen environmental management of partner companies	Supply chain risk reduction
Governance	TNFD management framework	Build nature capital management process	Strengthened sustainability management

Prepare (KPI & Management Targets)

Area	KPI	Target Direction
Water	Water consumption (m³/ton)	Decrease
Water Quality	Effluent TOC / BOD / SS	Decrease
Atmosphere	NOx/SOx/PM emissions	Decrease
Waste	Recycling rate (%)	Increase
Waste	Designated (hazardous) waste generation	Decrease
Energy	GHG emissions	Decrease
Management	Environmental incident count	Maintain at 0

CHAPTER 04

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Human Rights Management

Heesung Catalysts complies with international standards and guidelines related to human rights and labor. The Company actively practices human rights management to protect and promote the rights of all stakeholders, including employees, suppliers, and customers, and is building a culture of respect for human rights.

Human Rights Charter Implementation

Heesung Catalysts has established a Human Rights Charter to protect human rights across the entire organization, and is implementing a variety of human rights protection activities to ensure that all employees and stakeholders can work in a safe and dignified environment. The Company prohibits discrimination and violence, creates a working environment that guarantees employee safety and health, and raises human rights awareness through regular human rights training. In addition, the Company's human rights management policy is shared with suppliers to promote the spread of human rights protection across the entire supply chain. Heesung Catalysts will continue to strengthen a culture of respect for human rights, build a transparent human rights monitoring system, and do its utmost to protect the human rights of all stakeholders for a sustainable future.

Human Rights Management Mid-to-Long-Term Targets

Current

Up to 2025

Establish human rights management framework

- Enact and declare Human Rights Charter
- Grievance handling through Heesung Cyber Sinmungo (reporting system)
- Conduct statutory and human rights training



Mid-to-Long-Term Targets

2026-2030

Advance human rights management framework

- Conduct human rights impact assessments for risk analysis
- Advance human rights impact assessment diagnostic and due diligence indicators
- Implement corrective actions for identified human rights risks



Heesung Catalysts Human Rights Charter

As a leading eco-technology company bridging society toward a carbon-neutral future, Heesung Catalysts recognizes the importance of human rights, a universal human value, in all its business activities, as well as its corporate social responsibility. The Company endeavors to pursue its sustainable growth and development through respect for the human rights of all related stakeholders. To this end, as a standard of conduct and values that all employees must uphold to enhance human dignity and value in all management activities, the following Human Rights Charter is hereby declared.

- 1 No employee shall be discriminated against on grounds of race, gender, ethnicity, nationality, religion, disability, age, family status, social status, or political views in any management activity: an organizational culture respecting diversity shall be established.
- 2 Working hours prescribed by national law shall be observed, and minimum wages shall be guaranteed to ensure fair remuneration for work.
- 3 The privacy of all employees shall be respected and personal information rigorously protected: mental or physical coercion, abuse, or unreasonable treatment shall not be inflicted: physical, verbal, relational, and emotional harassment of any kind is strictly prohibited.
- 4 National labor relations laws shall be respected: the freedom of association and the right to collective bargaining guaranteed to employees under applicable law shall be recognized: and efforts shall be made to create an environment enabling smooth communication with the Company.
- 5 The Company shall not compel any form of labor contrary to the free will of workers in employment: and the minimum employment age stipulated by the laws of the country and region in which business is conducted shall be observed.
- 6 The Company prohibits all acts of recruiting, transporting, moving, concealing, or receiving personnel for exploitative purposes using threats, use of force, coercion, abduction, fraud, or deception.
- 7 Beyond paying the minimum wage guaranteed by law, the Company adheres to the principles of paying a living wage sufficient for employees and their families to maintain a basic standard of living, and providing welfare and benefit support.
- 8 The Company regularly inspects its facilities, equipment, and tools to ensure all employees can work in a safe working environment: separate safety equipment is provided and safety training is conducted.
- 9 The Company recommends that major customers and partner companies comply with their human rights protection obligations: where necessary, appropriate measures are taken to support their human rights management implementation.
- 10 All employees shall be mindful not to infringe upon the human rights of local residents in the conduct of their duties, and shall respect and protect residents' rights to safety and health, and freedom of residence.
- 11 All employees must place the protection of customers' lives, health, and property as the top priority when providing products and services, and take best-practice measures to protect various categories of information and personal data collected through business activities.
- 12 The Company continuously undertakes activities to protect the domestic and international environment.
- 13 The Company shall protect the personal information of stakeholders including customers in accordance with applicable law, and shall not use such information or use it for other purposes without the prior consent of the data subject.
- 14 In fulfillment of these commitments, the Company pledges to do its utmost to embed and spread human rights management, ensuring that all employees and stakeholders are guaranteed universal freedoms, rights, and human dignity.

CEO Hyun-sik Han

Human Rights Management

Grievance Handling System

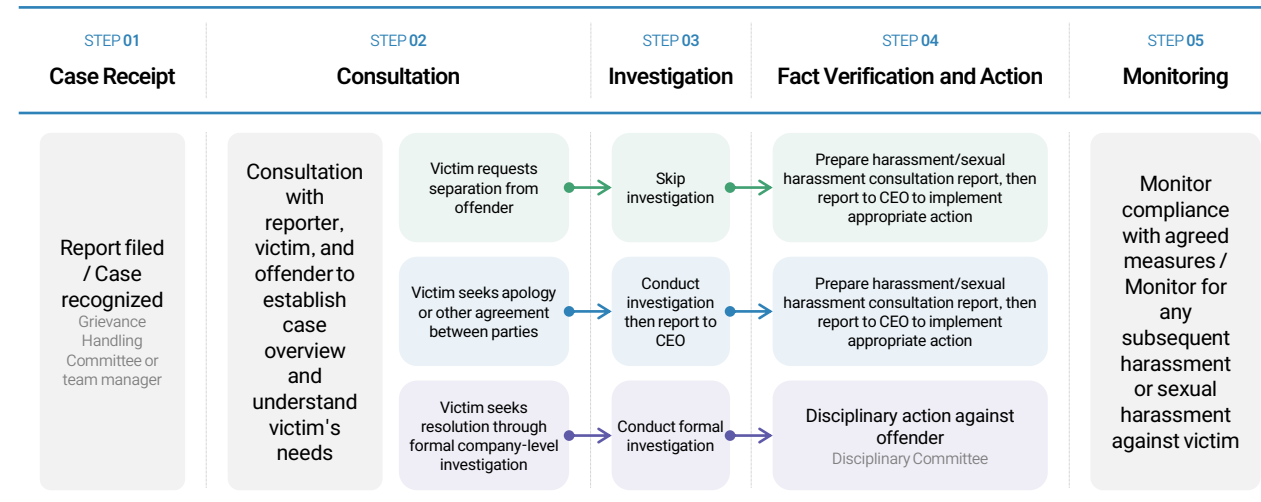
Heesung Catalysts operates a variety of policies and channels to address not only issues of discrimination, harassment, and sexual harassment, but all human rights violations and grievances arising in the workplace. Those who experience or witness human rights or ethics violations, whether internal employees or external stakeholders, can report and seek resolution through the Heesung Catalysts Cyber Sinnungo and the Ethics Management Office. Anonymous submissions ensure that the identity of reporters is thoroughly protected, and the confidentiality of reporters and any potential disadvantages they may face are proactively prevented and strictly safeguarded.

In addition, a Grievance Handling Committee is operated to prevent relevant human rights violations and to respond promptly when such cases occur. Any Heesung Catalysts employee may file and consult on violations and grievances, with the anonymity and confidentiality of reporters strictly guaranteed.

Disadvantages arising from consultations and reports are categorically prohibited. Grievances filed are communicated to the reporter along with the measures taken and their outcomes within 10 business days, and matters that are difficult for the Grievance Handling Committee to resolve are reported to the Labor-Management Council for handling. Appropriate measures in accordance with work rules and disciplinary regulations are taken against employees who have caused a negative human rights or ethical impact.



Grievance Handling Process



Grievance Handling Organization



Human Rights Management

Human Rights Status Survey & Human Rights Impact Assessment

In 2025, Heesung Catalysts conducted a Human Rights Status Survey and Human Rights Impact Assessment to protect the fundamental human rights of employees and embed a culture of respect. The assessments were carried out to proactively review human rights-related risks within the organization and identify improvement initiatives, comprehensively confirming actual operating conditions and employee awareness through department-level interviews and checklist-based diagnostics.

Human Rights Status Survey

Heesung Catalysts conducted a company-wide human rights status survey to examine human rights issues experienced by employees across organizational culture and the working environment as a whole.

Assessment Period

March 18 – April 8, 2026

Scope

All 27 departments
company-wide

Methodology

Self-diagnostic checklist
analysis and interviews
with at-risk departments

Lead Department

HR & General Affairs Team

Human Rights Status Survey

Heesung Catalysts conducted a company-wide human rights status survey to examine human rights issues experienced by employees across organizational culture and the working environment as a whole.

							● Satisfactory	● Moderate	● Serious		
Category	 Discrimination	 Harassment	 Sexual Harassment	 Unreasonable instructions	 Culture of respect	 Training	 Reporting channels				
Key survey details	Whether employees have experienced workplace discrimination	Whether employees have experienced unreasonable or high-pressure language or conduct	Whether employees have experienced sexual harassment or uncomfortable sexual language/conduct	Whether employees have experienced instructions to carry out tasks outside the scope of their duties	Whether employees perceive a culture of mutual respect within the organization	Whether employees have completed human rights and harassment prevention training	Awareness of human rights violation reporting channels				
Result	Moderate	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Moderate			
Notes	Some employees report feeling pressure regarding performance appraisal and promotion outcomes	No notable issues	Continue operating preventive training	No notable issues	No notable issues	Regular statutory training in operation	Need to strengthen guidance on reporting procedures and protection systems				

Human Rights Management

Human Rights Impact Assessment

Heesung Catalysts conducted a company-wide human rights impact assessment to review human rights risks that may arise across all business operations. The assessment results confirmed no material human rights violations, and the overall human rights protection management framework was found to be operating stably.

Key Assessment Items

	Field	Key Assessment Details	Results	Notes
General	Human rights management framework	Whether a Human Rights Charter has been enacted and is in operation	• Satisfactory	Human rights policy in operation
	Human Rights Training	Whether human rights training for employees is being conducted	• Moderate	Need to expand regular training
	Discrimination in recruitment	Whether discrimination occurs in the recruitment process	• Satisfactory	No notable issues
	Diversity and inclusion	Whether discrimination exists in wages, promotion, and evaluation processes	• Satisfactory	No notable issues
	Freedom of association & collective bargaining	Whether respect is shown for gender, age, nationality, etc.	• Satisfactory	Culture of diversity and inclusion in operation
	Working hours	Whether employees' freedom of expression is guaranteed	• Satisfactory	Compliance with relevant laws and regulations
	Forced & child labor	Whether statutory working hours are observed	• Satisfactory	ERP-based management in operation
Labor rights and health & safety	Industrial safety	Whether protection for pregnant and disabled workers is in place	• Satisfactory	Compliance with relevant laws and regulations
	Industrial safety	Whether protective equipment is provided	• Satisfactory	Department-level PPE issuance in operation
	Industrial safety	Whether health examinations are conducted	• Satisfactory	Regular health examinations conducted
	Safety training	Whether occupational safety training is conducted	• Satisfactory	Regular safety training in operation
Supply chain, community engagement, environment, information security	Supply chain human rights	Whether human rights violations have occurred at suppliers	• Satisfactory	No violations found
	Local Communities	Whether human rights violations of local communities have occurred	• Satisfactory	No notable issues
	Environment	Whether an environmental management system is in operation	• Satisfactory	Environmental safety activities in operation
	Personal data protection	Whether personal data protection training has been conducted and whether breaches have occurred	• Satisfactory	No violations found
	Other	Whether workplace human rights violations have occurred	• Satisfactory	Continue operating preventive training

Human Rights Impact Assessment

Based on the combined interview and self-diagnostic results, Heesung Catalysts will identify company-wide common improvement initiatives and pursue phased improvement activities.



Future Plans

Heesung Catalysts will continue to conduct regular human rights status surveys and human rights impact assessments to proactively manage potential human rights risks, and will work to create a sustainable management environment in which the human rights of all stakeholders are respected.

Safety & Health Management

Safety & Health Management Framework

Heesung Catalysts' safety and health management vision is to create a working environment where every employee and supplier can do their job with complete peace of mind. To achieve this, the Company has set three core objectives: zero accidents, zero serious accidents, and embedding a safety culture. Zero accidents means reinforcing preventive activities to ensure that no safety incidents occur in any workplace; zero serious accidents means proactively preventing major incidents through various accident prevention activities. In addition, the Company continuously strengthens training and promotion activities to embed a safety culture so that employees voluntarily comply with safety rules and maintain heightened awareness of hazards.

Safety & Health Management Vision

Building a safe, healthy, worry-free workplace for everyone.



Strategy & Strategic Initiatives

Heesung Catalysts has set clear mid-to-long-term targets for safety management and is working steadily toward each one.



Mid-to-Long-Term Targets



Zero serious accidents and industrial accidents

- Strengthen Lock-Out & Tag-Out (LOTO) system operations
- Strengthen regular safety training and drills

01

Conduct safety risk assessments and risk management

- Conduct regular workplace risk assessments to identify and address hazardous and dangerous factors
- Implement improvement measures and preventive countermeasures based on results

02

Strengthen ESG-linked safety and health sustainability

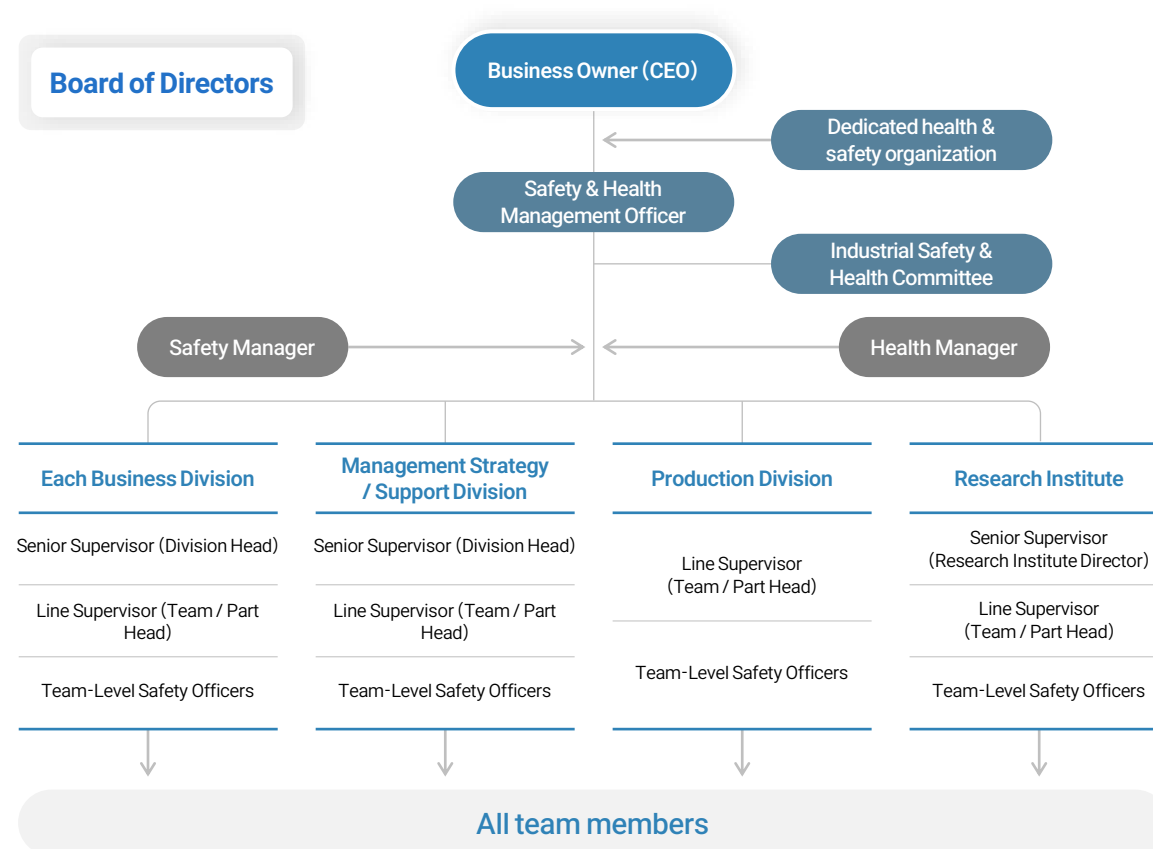
- Improve facilities with an eco-friendly and safety-first focus: build lower-risk workplaces
- Comply with global safety and health standards and strengthen stakeholder collaboration

03

Safety & Health Management

Safety & Health Governance

Heesung Catalysts' safety and health management vision is to create a working environment where every employee and supplier can do their job with complete peace of mind. Three objectives define the path there: zero accidents, zero serious accidents, and a deeply embedded safety culture. Zero accidents means reinforcing prevention across every workplace so that no safety incident occurs; zero serious accidents means putting in place the activities and systems needed to stop major incidents before they can happen. In addition, the Company continuously strengthens training and promotion activities to embed a safety culture so that employees voluntarily comply with safety rules and maintain heightened awareness of hazards.



Safety Golden Rules: 3 Prohibitions, 3 Practices

Heesung Catalysts has sharpened its core behavioral standards to make on-site safety rules more effective, centering them around the Safety Golden Rules — 3 Prohibitions, 3 Practices — which all employees and partner companies are required to follow. The three prohibitions are clear: no mobile phone use while walking, no removal of safety guards, and no storage of items in front of fire-fighting equipment. The three practices are equally clear: always wear PPE, comply with LOTO procedures, and report any accident immediately. Together, they prevent safety incidents and embed a genuine safety culture on the ground.

Safety Golden Rules: 3 Prohibitions 3 Practices

Violations of Safety Golden Rules are subject to identification and reporting

Violators

Safety & Health Management Officer

Line Supervisor.

Safety/Health Manager.



3 Prohibitions



No use of mobile phones while walking (calls excepted)



No removal of safety guards (safety enclosures, safety covers, interlocks)



No storage of items in front of fire-fighting equipment

3 Practices



Always wear personal protective equipment (based on PPE signage posted at entrances)



Comply with Lock-Out/Tag-Out (LOTO) procedures during inspection and maintenance

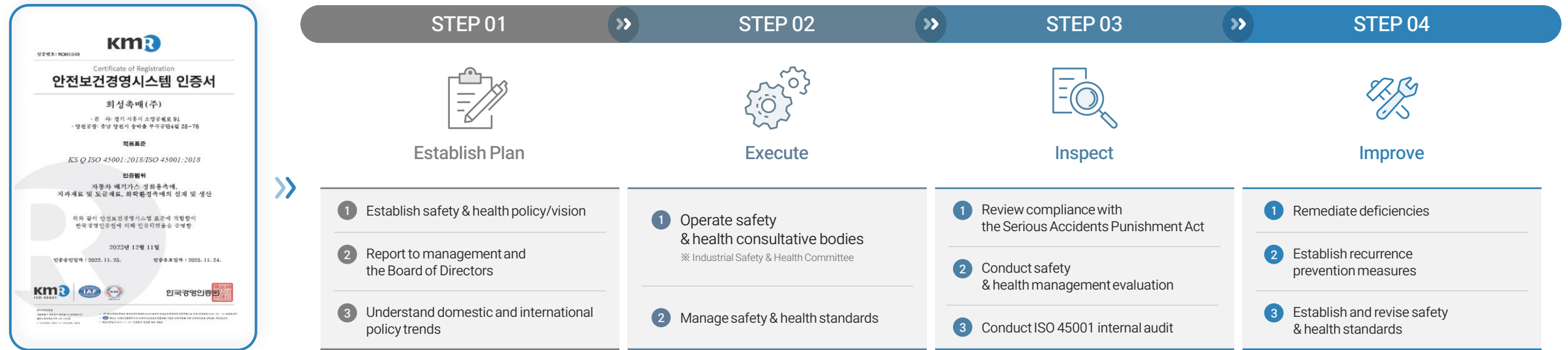


Report accidents immediately (Security Office: 496-5519)

Safety & Health Management

ISO 45001 Certification

Heesung Catalysts operates all its facilities based on the international occupational health and safety management system ISO 45001, and has established a systematic safety and health management framework. Annual internal audits and third-party certification audits are conducted to review and improve system conformity and maintain certification. The Company also strengthens hazard assessments and risk management to prevent serious accidents and conducts regular training and drills to embed an employee-participatory safety culture. Going forward, the Company will continue to pursue proactive risk prevention and improvement activities based on ISO 45001 and realize globally excellent safety and health management.



Regular/Ongoing Supplier Safety Management Training

Heesung Catalysts strengthens supply chain safety by collaborating with suppliers on safety and health management. Regular safety training is conducted for suppliers to help prevent hazardous risk factors. The Company also evaluates suppliers' safety management levels, recommends improvement measures, and encourages compliance with safety regulations. Safety information is shared through regular communication, and on-site safety is reinforced to enhance supply chain sustainability.



Supplier regular safety management training - < July 9, 2025 >

Safety & Health Management

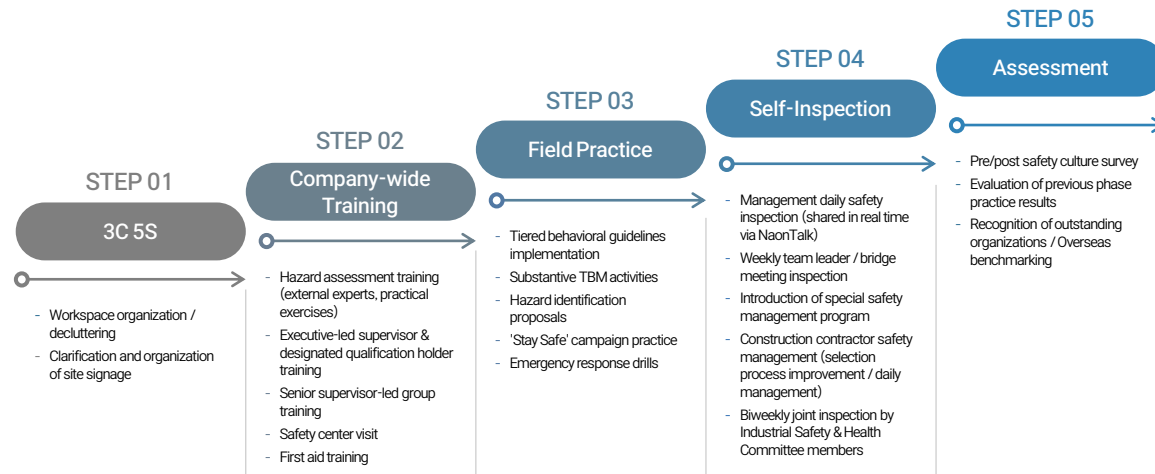
Safety 100 Project - Embedding a Genuine Safety Culture

Heesung Catalysts launched the Safety 100 Project, a company-wide safety culture reinforcement initiative, to create a safe and healthy workplace in which all members can work without worry. The project is a practice-oriented program aimed at proactively identifying and eliminating latent hazards in the field, and at embedding a culture in which all employees practice safety rules as a matter of daily routine, designed as a pre-emptive response to recent weakening of safety indicators and the risk of accidents. Through phased activities which include company-wide training, field practice, self-inspection, and evaluation, the Company systematically carried out foundational safety activities, hazard assessment training, emergency response drills, and site inspections, strengthening company-wide participation through joint labor-management inspections and a resolution signing ceremony. Heesung Catalysts will continue to spread an autonomous safety culture based on the Safety 100 activities, and will make sustained efforts to realize a zero-accident workplace and strengthen the foundation for sustainable safety and health management.



Safety Golden Rules: 3 Prohibitions, 3 Practices

To raise employee safety awareness and further strengthen on-site safety culture, Heesung Catalysts held a Safety Culture Quiz event on three occasions in July 2025 (July 10, 17, and 24). The event was conducted as a true/false safety knowledge quiz for all employees, drawing strong interest and participation from approximately 250 employees in total. Through this activity, Heesung Catalysts enabled employees to easily and engagingly revisit safety knowledge that can be overlooked in everyday work, and sought to spread a culture in which safety is not merely a matter of rule compliance but something everyone participates in together. The Company will continue to expand diverse safety culture activities that employees can enjoy and participate in, working to create a safe working environment and embed a field-centered safety culture.



63rd Fire Protection Day - Siheung Fire Chief Commendation

In November 2025, Heesung Catalysts received a commendation from the Siheung Fire Chief in recognition of its contribution to strengthening hazardous materials safety management systems at its facilities and embedding a community safety culture. This recognition reflects the results of field-centered safety management activities including proactive elimination of latent hazards, regular inspections and emergency response drills, strengthening of training for relevant personnel, and a 100% statutory inspection compliance rate. Heesung Catalysts will continue to strengthen its sustainable safety and health management framework on the foundation of safety-first management.



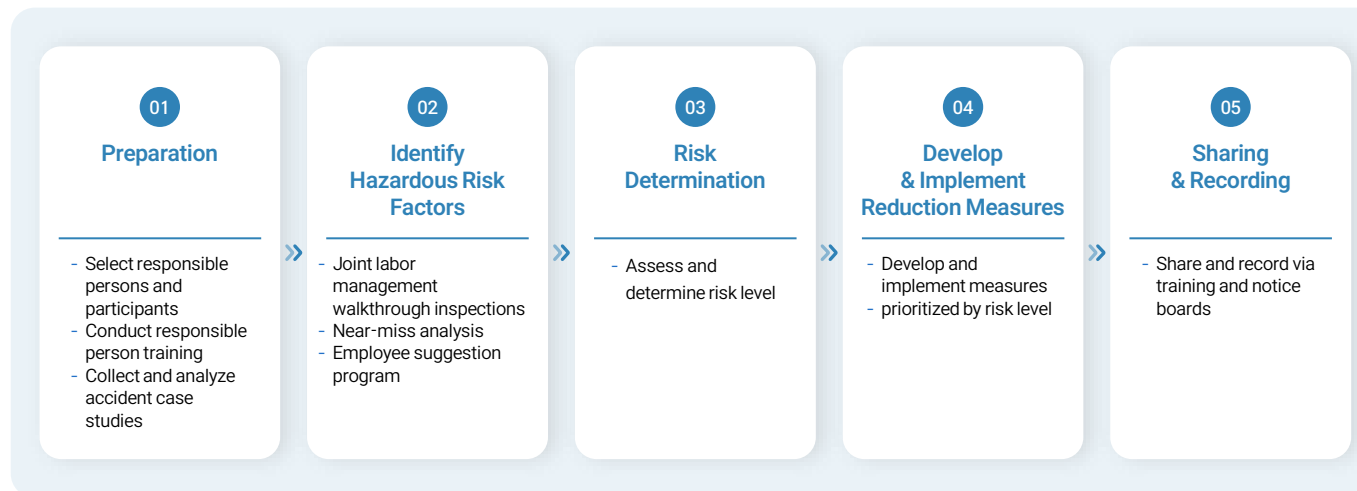
Safety & Health Management

Safety & Health Risk Assessment

Heesung Catalysts' safety and health management vision is to create a working environment where every employee and supplier can do their job with complete peace of mind. Three objectives define the path there: zero accidents, zero serious accidents, and a deeply embedded safety culture. Zero accidents means reinforcing prevention across every workplace so that no safety incident occurs: zero serious accidents means putting in place the activities and systems needed to stop major incidents before they can happen. In addition, the Company continuously strengthens training and promotion activities to embed a safety culture so that employees voluntarily comply with safety rules and maintain heightened awareness of hazards.

Safety & Health Risk Assessment System

Heesung Catalysts conducts hazard risk assessments to proactively identify and address hazardous risk factors within employees' work scope, and to prevent industrial accidents. In particular, in response to the enforcement of the Serious Accidents Punishment Act, field workers participate in the entire hazard risk assessment process to effectively reflect on-site voices, and the Company makes every effort to share the full scope of results with workers in order to achieve the goal of preventing industrial accidents. For the 2024 hazard risk assessment, worker participation through pre-surveys as well as assessment training and on-site inspections and listening surveys were additionally utilized to enhance the effectiveness of the risk assessment. On-site supervisors take the lead in driving hazard improvements, ensuring that action is taken where it matters most. Going forward, Heesung Catalysts will continue to assess and address risk factors with the same rigor, so that every worker can carry out their duties in a safe environment.



Hazard Risk Assessment Results

Heesung Catalysts conducted its regular hazard risk assessment at the Sihwa Plant in 2025, systematically reviewing hazardous risk factors across all departments: production, R&D, and management support. The assessment was carried out in accordance with the requirements of the Occupational Safety and Health Act and the Serious Accidents Punishment Act, covering a total of 630 assessment processes and 1,506 sub-processes, and identifying 3,351 hazardous risk factors. The average risk level was calculated at 3.75, and 79 improvement plans were registered for items requiring remediation, with follow-up actions underway. The 2025 risk assessment expanded the scope and detailed inspection range compared to the previous year, with a focus on identifying a broader range of hazardous risk factors and advancing the management framework. Key hazardous risk factors identified included slips and trips, musculoskeletal burden from heavy material handling, machinery entrapment and collisions, chemical substance contact, and collisions with transport equipment, reconfirming the importance of preventive activities tailored to site-specific characteristics. Based on the assessment results, Heesung Catalysts is establishing risk reduction measures including engineering improvements, strengthened administrative controls, review of alternative measures, and supplementary personal protective equipment. Concrete improvement initiatives include reinforcing anti-slip facilities, installing local exhaust ventilation and safety covers, introducing equipment interlocks and detection sensors, strengthening work standards and safety training, and expanding PPE provision. Heesung Catalysts will keep a close eye on assessment results and track improvement progress on an ongoing basis, staying ahead of latent hazards and building a workplace where everyone can work safely.

Industrial Safety & Health Committee

Heesung Catalysts operates the Industrial Safety & Health Committee on a quarterly basis to deliberate on matters related to industrial accident prevention and worker health management, and to strengthen the effectiveness of creating a safe and pleasant working environment. The committee includes the Safety & Health Management Officer, Safety Manager, and Health Manager, and incorporates an equal number of worker representatives nominated by employee representatives and employer representatives nominated by the Safety & Health Management Officer, ensuring that employee opinions are appropriately reflected. The committee deliberates and resolves on matters including industrial accident prevention plans, establishment of safety and health management regulations, safety and health training, health examinations, and working environment measurements, thereby managing the overall occupational safety and health of Heesung Catalysts.

Safety & Health Management

2025 Health Program Activities



2025 Health Program Activities

Program	Tangible and Intangible Effects	Schedule
Health Campaign 1 (Quit Smoking)	Tangible effects: Reduced healthcare costs, increased productivity, improved working environment Intangible effects: Improved organizational culture, enhanced employee satisfaction, improved corporate image	April – December (8 months)
Health Campaign 2 (Walk Challenge)	Tangible effects: Improved health outcomes, increased productivity, reduced medical costs Intangible effects: Reduced stress, strengthened teamwork, improved corporate image	October 16 – November 15 (1 month)
Musculoskeletal Pain Prevention Program (Stretching Class)	Tangible effects: Prevention of musculoskeletal disorders, increased productivity, reduced medical costs Intangible effects: Stress relief, increased employee satisfaction, formation of healthy organizational culture	June – September (10 sessions)
CPR Training	Tangible effects: Improved survival rates, reduced medical costs, strengthened emergency response capability Intangible effects: Spread of safety culture, increased trust and accountability among employees, improved corporate image	October (3 sessions)

“HUG MOM, HUG YOU”

Heesung Catalysts operates a variety of health promotion programs to protect the physical and mental health of its employees. The Company provides comprehensive support for employee health management, including regular health check-ups, vaccination support, and psychological counseling programs. In particular, through psychological care programs such as 'HUG MOM, HUG YOU', the Company supports employees in relieving work-related stress and personal difficulties, providing one-on-one psychological counseling services when needed. These programs help employees approach their work with a healthier and more positive mindset, and also contribute to overall job satisfaction and productivity improvement.



Sustainable Supply Chain Management

Supplier Co-Growth Development Framework

Heesung Catalysts places great importance on fair trade with suppliers and actively supports the growth of suppliers for sustainable management. Heesung Catalysts and its suppliers work to build a genuine partnership that shares mutual culture and vision, recognizing that this creates greater value through cooperation and mutual growth rather than competition.

Supply Chain Sustainability Management

Heesung Catalysts operates a supply chain sustainability management framework based on the Supplier Code of Conduct to build an ethical and sustainable supply chain. The Company requires suppliers to practice environmental protection, respect for human rights, and compliance with fair trade principles, and verifies this through regular evaluations and due diligence. In particular, high-risk suppliers are recommended improvements and supported following a risk assessment. The Company also pursues supplier training and ESG capability development, and plans to expand the scope of ESG management to second-tier suppliers to strengthen transparent and accountable supply chain management.

Supplier Management & Status

Heesung Catalysts maintains trading relationships with a diverse range of suppliers. In March 2025, the Company revised its Supplier Code of Conduct. The updated code has been shared with suppliers, encouraging them to put its provisions into practice. Heesung Catalysts pursues co-growth with suppliers and guides them to grow into companies that fulfill their social responsibilities. Through regular supplier ESG due diligence, the Company evaluates and monitors supplier compliance with the Code of Conduct, and concludes fair trade agreements with suppliers annually to work toward creating a fair and transparent trading environment. In addition, periodic supplier visits are conducted to gather feedback and address issues, thereby preventing unfair practices.

Supplier Evaluation & Selection

Heesung Catalysts sets customer satisfaction as its top priority and evaluates and selects suppliers with the goal of 'sustainable supply chain management.'

In the supplier selection process, ESG factors are evaluated alongside quality management systems, quality performance, and credit assessments, and the results are reflected in the supplier selection process.

Supplier Evaluation Process



Supplier ESG Evaluation Checklist



Conflict Minerals Training Records

Category	Key Assessment Items
Environment	- Whether an environmental policy exists - Whether any environmental regulatory violations have occurred - Whether an environmental management system certification has been obtained
Labor/ Human Rights	- Whether a Human Rights Charter exists - Whether conflict minerals management is in place - Whether minimum wage requirements are being met - Whether sexual harassment and workplace harassment prevention measures are in place - Whether safety and health management system certification has been obtained - Whether any safety and health regulatory violations have occurred
Ethics	- Whether an Ethics Charter exists - Whether conflict minerals tracking and management is in place - Status of donation expenditures - Whether any administrative sanctions related to business operations have been imposed
Governance	- Whether a reporting channel for employee corruption and conflicts of interest is in operation - Whether sustainability performance is publicly disclosed - Whether anti-corruption and compliance training is being conducted

Supplier ESG Assessment Overview

Category	2025
Target	4
Result	4
Achievement Rate	100 %

Sustainable Supply Chain Management

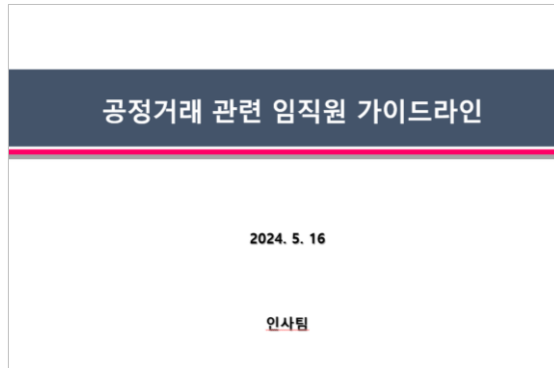
Conflict Minerals Management Governance

Heesung Catalysts recognizes as serious concerns the human rights abuses and environmental destruction caused by mineral extraction in conflict-affected and high-risk areas. The Company works to prevent child labor exploitation, protect worker safety, and prevent environmental destruction, and operates responsible policies and management processes. The Purchasing Team leads the review of supplier responsible minerals risks and manages these in collaboration with the Sustainability Management Team and other relevant departments. With the active interest and support of the CEO, the Company endeavors to manage conflict minerals effectively.

Fair Trade & Co-Growth Framework

Heesung Catalysts maintains transparent and ethical transactions with suppliers in accordance with fair trade principles, and supports co-growth through mutual growth programs. The Company regularly provides financial support and management and technology training to help suppliers strengthen their competitiveness, and spares no effort in providing comprehensive support for practical capability development. Going forward, the Company will reinforce supplier evaluations that reflect ESG performance to internalize the value of mutual growth.

To build a sustainable supply chain, the Company plans to advance its collaborative framework with suppliers and strengthen long-term, stable partnerships.



Fair Trade Guidelines



Training on fair trade conducted (May 16, 2025)

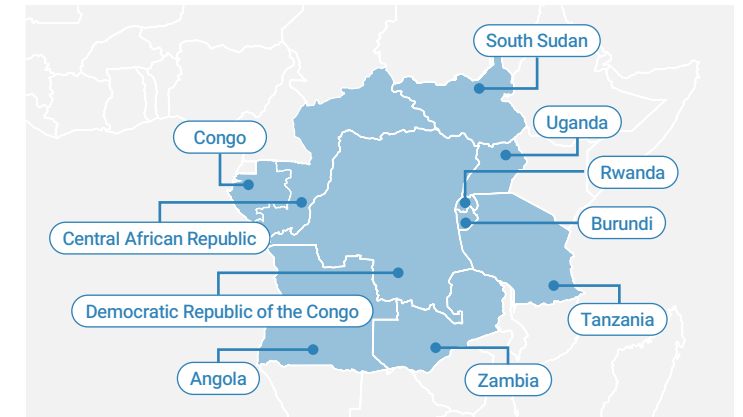
Conflict Minerals Management Policy

Heesung Catalysts recognizes that conflict minerals including tin, tantalum, tungsten, and gold are extracted and traded through unethical means in conflict-affected regions, fueling human rights abuses and environmental destruction. The Company prohibits the use of any such minerals in its operations. The Company provides suppliers with conflict minerals management guidelines and supports related briefing sessions to raise awareness of conflict minerals. Furthermore, the Company will continue to work toward expanding its minerals procurement policy, which urges suppliers' own trading partners to refrain from using conflict minerals and to fulfill their social responsibilities.

Conflict minerals training records maintained on file

[illegible]

10 African Conflict Region Reserves & Applications



Mineral	Estimated Reserves	Primary Uses	Key Industries
Tin	3-4%	Electronic soldering, industrial machinery, chemicals, etc.	Mobile phones, automobiles, jewelry, electronic medical devices, etc.
Tantalum	8-20%	Electronic capacitors, turbine components, chemical equipment, etc.	Mobile phones, automobiles, TVs, aerospace, energy, etc.
Tungsten	2-4%	Cemented carbide tools, electron guns, etc.	Automobiles, electronic medical devices, energy, etc.
Gold	1%	Electronic plating, PCBs, etc.	Semiconductors, aerospace, etc.

Quality Management

Quality Management Framework

Heesung Catalysts practices systematic quality management for customer satisfaction and sustainable growth.

The Company has built an internal management framework reflecting IATF 16949 / ISO 9001 standards and customer requirements (Hyundai-Kia Motors 5-Star, GM BIQS), and continues to pursue company-wide quality control and supplier quality improvement efforts.

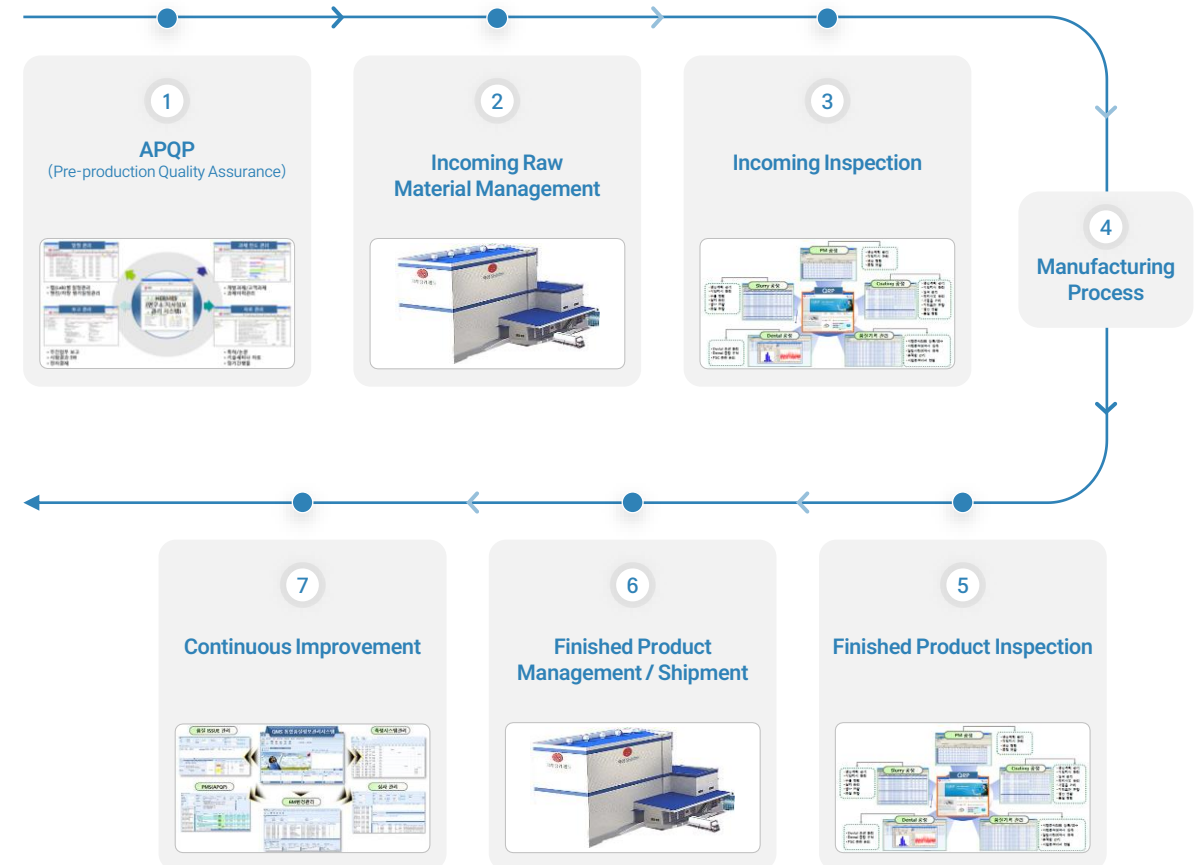
The Company also strengthens quality awareness among all employees and secures competitiveness by providing high-quality products based on process improvement and innovation. Going forward, the Company will further strengthen customer trust through continuous quality innovation and advancement of the quality management framework.

Quality Management Vision & Strategy



Quality System Framework

Heesung Catalysts runs a systematic quality management operation that covers incoming raw material management, incoming inspection, in-process quality inspection, and finished product control, built around global certifications and customer requirements. Real-time data monitoring ties it all together, reducing defects and keeping processes stable. Continuous quality improvement activities also realize resource savings and eco-friendly manufacturing, while collaboration with suppliers improves supply chain quality. Heesung Catalysts will continue to realize environmental protection, resource savings, and reliable product supply through sustainable quality management.

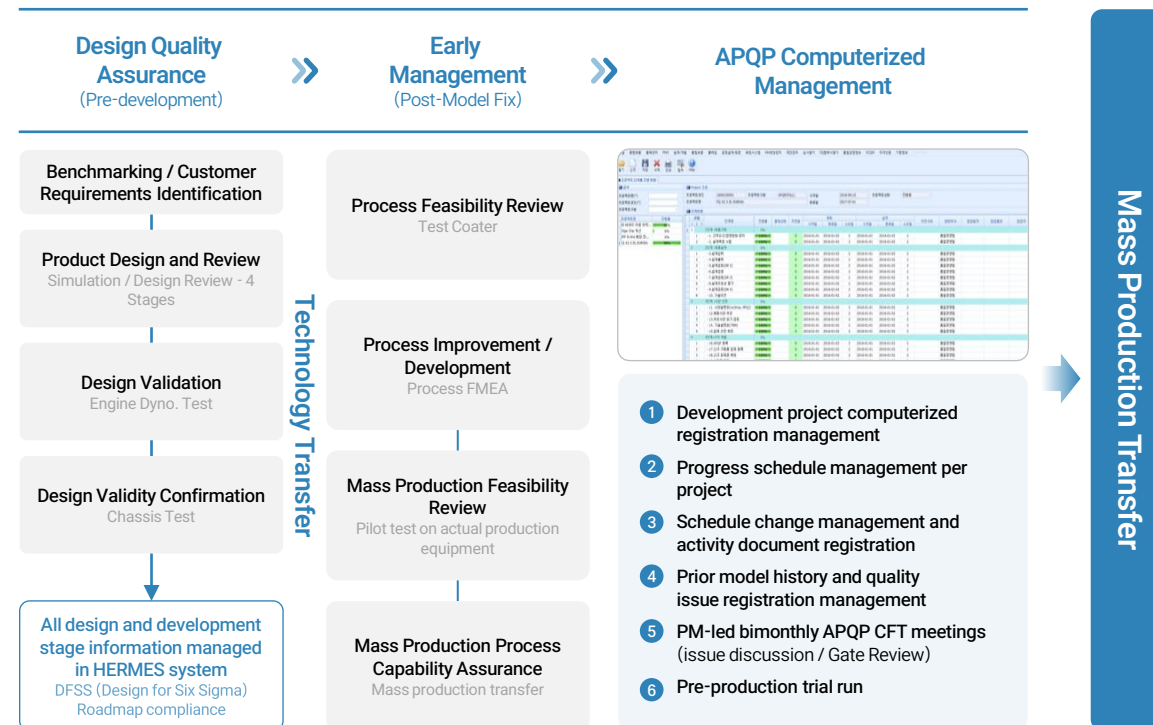


Quality Management

Development Parts Quality Strengthening

Heesung Catalysts applies the APQP (Advanced Product Quality Planning) process to minimize quality risks from the earliest stages of development. Simulation and verification are performed at the design stage, and mass production stability is secured through process development and improvement activities (FMEA, Pilot Tests). In addition, data-driven quality management using the HERMES system and Gate Review operations realize defect-free parts development.

This approach reduces resource waste, improves process efficiency, and ensures product reliability to pursue sustainable production. Going forward, Heesung Catalysts will continue to create both environmental and economic value through proactive quality management and continuous process innovation.

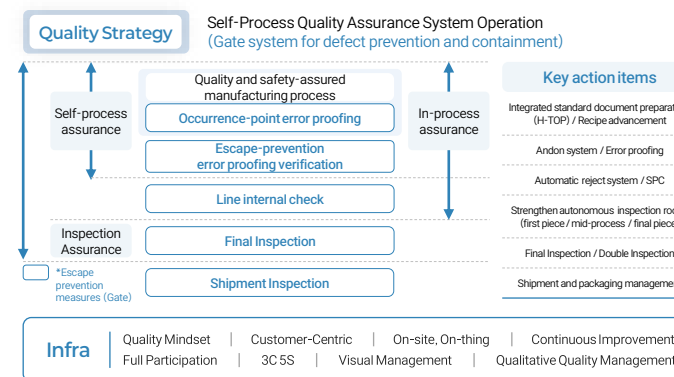


IT-Based Quality Management Systems

Heesung Catalysts has built IT-based quality management systems, including ERP, APS, QMS, QRP (MES), CMMS, HERMES, and H-MIS, to efficiently manage production, quality, logistics, maintenance, and R&D. Through these systems, the Company realizes real-time quality monitoring, data-driven decision-making, and continuous process improvement.

Enterprise Resource Planning	Logistics	Production Planning	Process Management	Quality Information	Equipment Management	R&D	Management Information
ERP/Groupware	Automated Warehouse (ASRS)	APS	QRP(MES)	QMS	CMMS	HERMES	H-MIS
ERP Groupware	Automated Storage & Retrieval System	Advanced Planning & Schedule	Quality Resource Planning	Quality Management System	Computerized Machine Management System	Heesung catalysts Research Management & E-library System	Heesung Management Information System
HR Management Basic Information Management Item Management	Raw Materials / Finished Products FIFO Lot Tracking	Production Plan Preparation Raw Material Ordering	Production Information Inspection Information	Quality Information Management (APQP / improvement activities / FR / 6M changes / audits)	Equipment Inspection Spare Parts Management	Development Project Management Research Data Management	Real-time Process Status KPI Performance

Process Quality Assurance Activities



Heesung Catalysts has built a Gate system for defect prevention and containment, ensuring quality assurance. Error-proofing (E/P) systems are applied to prevent defect occurrence, and real-time monitoring and automated inspection systems prevent escapes. Autonomous inspection and final inspection reinforcement, SPC, and automatic reject systems are also utilized to secure process stability. Based on this quality strategy, the Company continuously pursues improvement, on-site quality reinforcement, and qualitative quality management, working to provide reliable products.

Customer Satisfaction

Customer Satisfaction Improvement Process

Heesung Catalysts maintains and manages mass production quality competitiveness for continuous customer satisfaction, and provides real-time delivery performance to customers to deliver sustainable technological capability and competitiveness. When quality issues arise, a 12-step rapid response activity and differentiated improvement process are applied to protect customers. A Daily Quality Review (DQR) meeting is held at 8:00 a.m. every morning across all divisions, with non-conformances allocated by function for improvement, managed through monthly quality signal board, monthly quality performance boards, and computerized systems. All non-conformances are managed through computerized systems using the P-D-C-A cycle for schedule management and verification of improvement completion. Through these activities, the Company strives to achieve zero-defect quality and translate it into customer satisfaction.

Customer Satisfaction Improvement Process

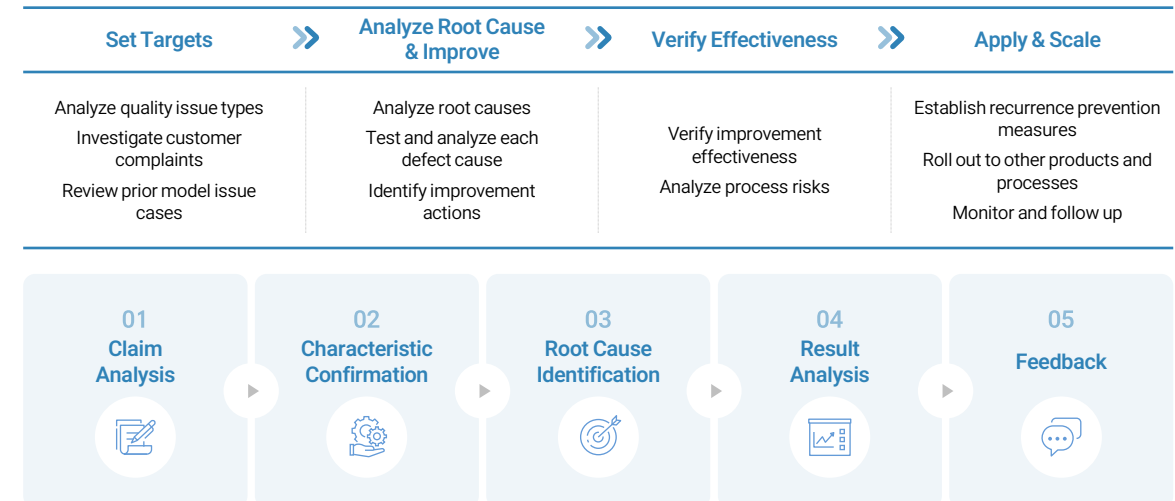


Field Claim Improvement Process

Heesung Catalysts performs rapid and precise root cause analysis when field claims arise, utilizing state-of-the-art inspection and measurement equipment. Upon receipt of a claim, detailed data is collected from the customer through the defective product registration system, and the product's quality status is precisely analyzed using the Company's advanced inspection equipment.

Data from production through shipment is systematically managed and analyzed for all products to verify the authenticity of defects and fundamentally identify root causes. The Chassis Dyno laboratory supports problem resolution in real-world usage environments through comprehensive performance and root cause analysis by directly mounting catalysts on actual vehicles and engines. Through this process, Heesung Catalysts enhances customer trust and strengthens proactive quality issue prevention for sustainable customer satisfaction management.

Field Claim Improvement Process



Customer Satisfaction

Hyundai-Kia Motors Grand 5-Star (Quality, Delivery, Technology)

Placing customer satisfaction as its highest priority, Heesung Catalysts has continuously worked to meet the quality and technology requirements of Hyundai and Kia Motors. As a result, the Company has maintained the 5-Star rating from 2002 to 2010 and the Grand 5-Star rating from 2011 to the present, demonstrating recognized excellence in quality competitiveness.

In addition, the Company has achieved zero incoming defect rates and zero field claims from 1988 to the present through rigorous quality management. The Company also continues to maintain the top rating in Technology and Delivery 5-Star evaluations, establishing itself as a trusted partner for customers.

Going forward, Heesung Catalysts will maximize customer satisfaction through the highest quality and continuous innovation, and further strengthen its collaborative relationship with Hyundai and Kia Motors.

1988 – Present

**Zero incoming
defect rate and zero
field claims**



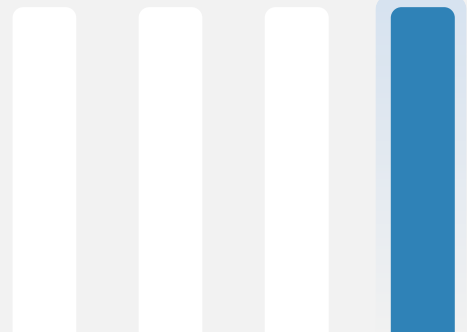
2002 – Present

**Top rating maintained
across Technology and
Delivery 5-Star evaluations**



Quality 5-Star

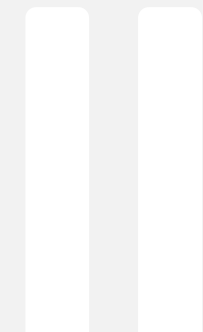
5 Star » 5 Star » Grand 5S » Grand 5S



2002 2010 2011 2024

Delivery 5-Star

5 Star » 5 Star



2002 2024

Technology 5-Star

5 Star » 5 Star



2006 2024

Training and Education

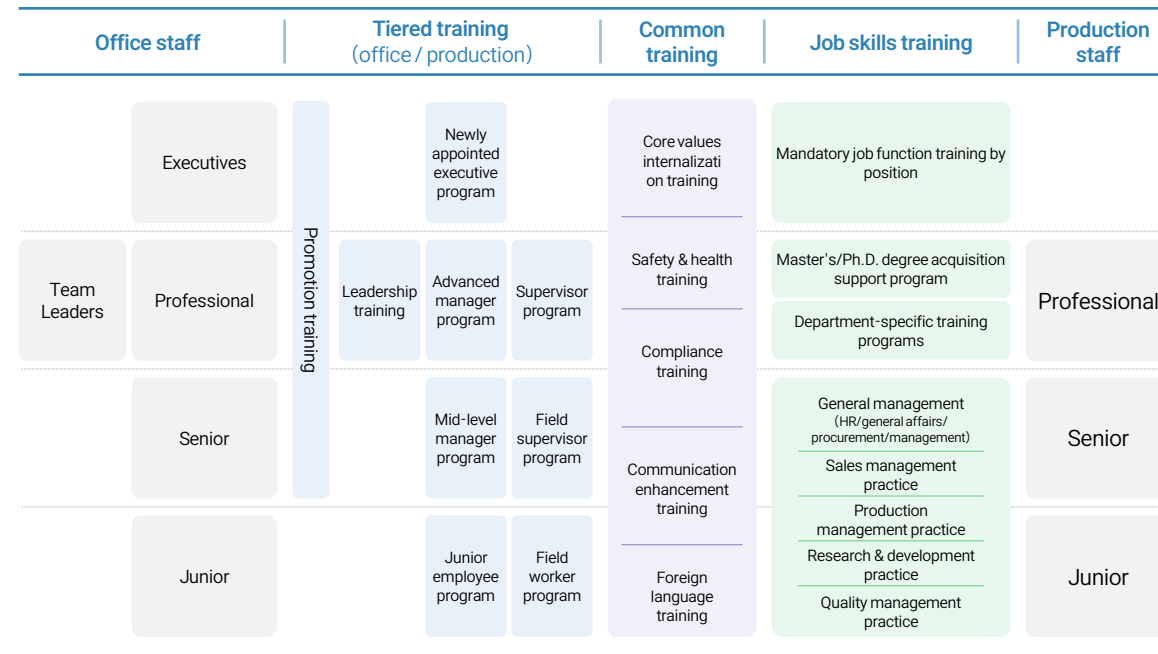
Heesung Catalysts recognizes that the role of its people is critical to sustainable growth. The Company spares no effort in active investment for employee capability development.

In collaboration with internal and external experts and institutions, the Company continuously develops diverse and innovative training programs and works to build a culture in which employees can freely learn and grow of their own accord.

Training Framework

A company-wide capability development training system is operated to ensure that employees from new hires to team leaders can acquire the competencies required for their respective levels and job functions. Company-wide group training is conducted annually for all employees to foster core values. Specialist in-house instructors are developed for on-the-job technical training on products currently in production and development. University-linked programs, government-supported new technology training, and external training are supported for in-depth job training and multi-faceted capability development. Additionally, foreign language training and office productivity training across a variety of fields are supported to foster personal values and improve language proficiency.

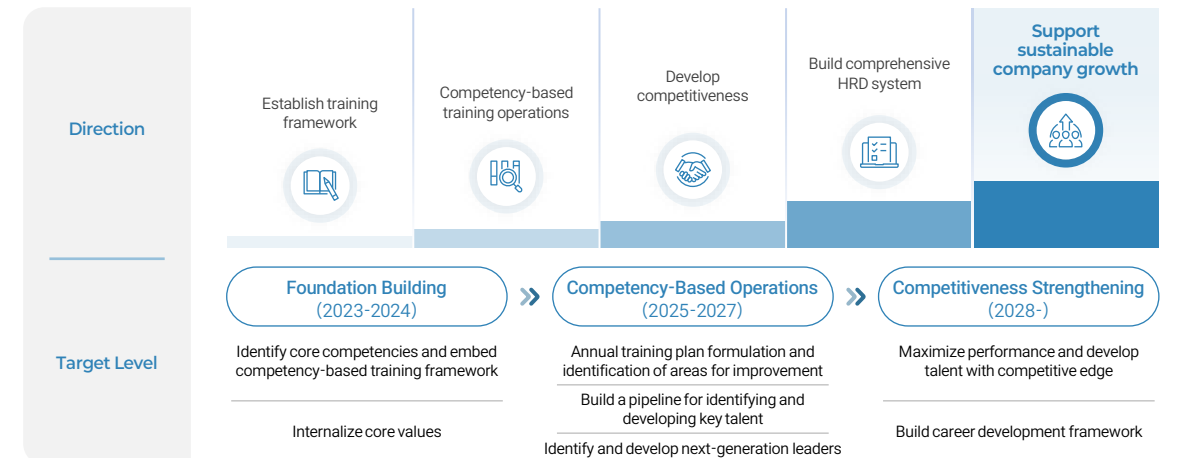
Training & Development Framework



Training Direction & Strategy



Mid-to-Long-Term Training Roadmap



Training and Education

Core Values Workshop



In 2025, Heesung Catalysts conducted core values internalization workshops for all divisions, supporting employees in understanding the organization's core values in connection with their day-to-day work. The workshops moved beyond lecture-based delivery to incorporate discussion and participatory activities, enabling employees to share the meaning of the core values and collaboratively derive practical directions for the production floor. In particular, through department-level opinion gathering and collaborative processes, common ground rules for the Production Division were established, providing a momentum for improving organizational culture consistency and strengthening the operational foundation centered on safety, quality, and collaboration.

Leadership Capability Enhancement Training



From October to November 2025, Heesung Catalysts conducted team leader capability enhancement training across five sessions, supporting the development of leadership and organizational management capabilities for middle managers. The training was designed with recognition that team leaders serve as the key role for operational management, talent development, and organizational culture dissemination, and was focused on core competencies required of managers, including leadership, communication, organizational management, and employee motivation. Participants shared reflections on actual organizational management challenges through case sharing and discussion, and sought more effective leadership practice directions. Heesung Catalysts plans to continue expanding training for management-level personnel to strengthen the future leadership framework.

Level-Based Promotion Training



In June 2025, Heesung Catalysts conducted training for newly promoted supervisory-grade employees to strengthen the sense of responsibility and collaborative capabilities required for their new roles. The training was designed to deepen understanding of the role transition required following promotion and to cultivate the capacity for smooth communication and collaborative problem-solving within the organization. Through participatory programs and team-based activities, employees experienced the importance of mutual trust and cooperation, and accumulated collaborative experience toward achieving common goals. Heesung Catalysts views promotion training not merely as a grade transition process but as a growth stage for developing future key talent, and plans to continue expanding training opportunities to improve organizational adaptability and teamwork.

Office Staff Training



In December 2025, Heesung Catalysts conducted training for office staff employees to support capability development as future talent and improve organizational understanding. The training was designed to share the roles and responsibilities required of office staff in a rapidly changing business environment and to improve collaborative, communication, and problem-solving capabilities. The training was conducted in a format combining lectures and participatory activities, and provided employees with an opportunity to reflect on how their work connects to the Company's sustainable growth. Heesung Catalysts views the capability development of office talent as directly leading to the stability and strengthening of organizational operations, and continues to advance training frameworks that reflect job-specific characteristics.

Performance Evaluation

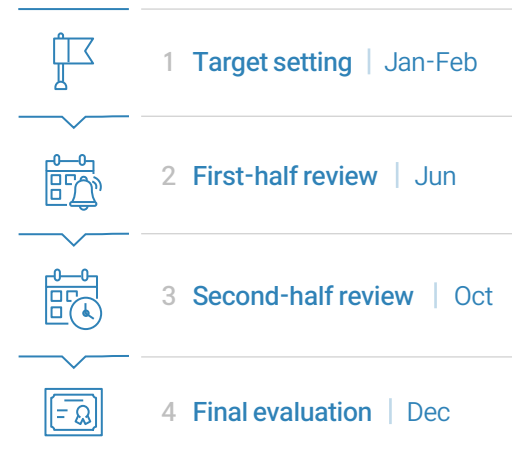
Performance Evaluation Framework

Heesung Catalysts runs a systematic performance management system to support employee performance improvement and growth. KPI-based performance evaluations are conducted based on the Company's vision and strategic objectives, promoting the strengthening of individual employee capabilities and achievement of goals. Performance evaluations include transparent criteria and regular feedback processes to maintain fairness and objectivity.

Performance Evaluation Perspectives



Performance Evaluation Process



2025 Performance & Competency Evaluation Results

Category	Target Headcount	Trained Headcount	Completion Rate
Performance Evaluation (Office Staff)	162	162	100 %
Competency Evaluation (Office Staff)	162	162	100 %
Performance Evaluation (Production Staff)	349	349	100 %

2025 Heesung Catalysts Award Programs

Award	Description	Frequency
Employee of the Month	Company-wide outstanding employee recognition	Monthly
Safety Guardian of the Month	Safety improvement activity recognition	Monthly
Suggestion Award	Revenue and productivity improvement recognition	Monthly
Project Performance Presentation Award	Annual key project performance recognition	Annual
Long-Service Award	Long-Service Awards	Annual

Project Performance Presentation & Awards

To encourage and reward innovative performance by employees, Heesung Catalysts holds an annual year-end Project Performance Presentation event with KRW 40 million in awards. The presentation goes beyond mere compensation, playing an important role in strengthening performance sharing and a collaborative culture within the organization. It also provides employees with opportunities to understand each other's work and experience a sense of achievement, promoting motivation and continuous growth. Going forward, Heesung Catalysts will maintain a fair and transparent evaluation and reward framework and work to simultaneously improve sustainable corporate growth and employee satisfaction.



2025 Project Performance Presentation held (December 17, 2025)

Organizational Culture & Employee Benefits

Heesung Catalysts Female Employee Ratio

The proportion of female employees at Heesung Catalysts has shown a gradual upward trend: 6.7% in 2023, 7.6% in 2024, and 7.7% in 2025. This reflects the Company's steady expansion of an organizational foundation in which diverse talent can grow together. Heesung Catalysts will continue to broaden participation opportunities for female talent across recruitment, development, and career advancement, and will work persistently to create a more balanced organizational culture.

Category	Unit	2023	2024	2025
Female employee ratio	%	6.7	7.6	7.7
Female manager ratio (Assistant Manager and above)	%	2.9	3.2	3.0

Expanded Employment of Persons with Disabilities

Heesung Catalysts employs persons with disabilities at a rate of 2.6%, which exceeds the average of 1.85% for the top 200 companies by market capitalization, and continues to work toward fulfilling social responsibility in alignment with the Company's ESG management direction. In particular, in 2024, in addition to on-site employment, the Company employed 8 persons with severe disabilities in remote work positions capable of simple ceramic work. This initiative provided employment opportunities to persons with severe disabilities who typically face significant barriers to employment, and by presenting the ceramics cups they produced as birthday gifts to employees, the Company was able to simultaneously fulfill corporate social responsibility and enhance employee benefits.

Flexible Working Hours

Heesung Catalysts adopts a selective working time system in which total working hours over a set period average out to the statutory working hours by extending hours on some days while reducing them on others. By introducing flexibility in optional morning and afternoon start/end times, individual work-life balance has improved, and core working hours are set as mandatory working time to maximize work efficiency and productivity while also effectively driving in-house collaboration.

Selective working hours	Mandatory working hours	Selective working hours
Before 09:30 (arrive at work)	09:30 – 16:00 (excluding lunch)	16:00 onwards (leave from work)

Employee Benefits Programs

Heesung Catalysts offers a comprehensive suite of employee benefits designed to create a stable, rewarding place to work. These programs support financial security and health management to everyday convenience and personal development. The goal is to improve quality of life, foster long-term commitment, and create a foundation where employees and the Company grow side by side. Heesung Catalysts continues to develop competitive benefits to keep pace with evolving needs.

Program	Description	Effect
Housing / Vehicle Loans	Loan support for employee housing and vehicle purchases for economic stability	Long-term retention and employee satisfaction improvement
Tuition	Support for children's tuition and employee's own educational costs to reduce financial burden	Household financial stability and support for children's education
Foreign Language Learning	Annual support of KRW 1 million per person for foreign language development activities	Improved foreign language proficiency
Overseas Language Programs	One-month U.S. language study program support for office staff at the rank of Assistant Manager or above	Improved foreign language proficiency
Health Check-ups	Regular health check-ups and family medical expense support for employee and family health management	Improved employee health and benefits satisfaction
Outing / Retreats	Team retreat support twice per year	Employee satisfaction and teamwork improvement
Birthday / Anniversary Gift Vouchers	Gift vouchers provided on birthdays and wedding anniversaries	Improved employee satisfaction
Dormitory	Dormitory provided for employees with difficulty commuting	Resolved commuting difficulties; improved daily living stability
Vacation Stays	Hotel/resort discounts for family leisure time	Increased employee satisfaction and support for leisure activities
Long-Service Awards	Awards and additional leave based on years of service to encourage long-term employment	Employee loyalty and motivation
Reduced Working Hours for Childcare	Reduced working hours program for female employees to support work-life balance	Improved female employee work satisfaction; increased diversity
Parental Leave	Parental leave program for childcare of pre-school children	Improved work satisfaction
Commuter Bus Service	Commuter bus provided for employees with difficult commutes	Reduced commute time and work fatigue
Employee Online Store	Various products available at discounted prices on the Company's dedicated online store	Improved employee benefits and purchasing convenience
Mutual Aid Service	Mutual aid service supports employees during family events	Employee welfare support and sense of community
Medical Expenses & Medical Loans	Medical expense support and loans for employee and family to reduce medical burden	Employee and family health management; economic stability

Organizational Culture & Employee Benefits

Great Place to Work (GPTW) Survey

Heesung Catalysts is making various efforts to become a Great Place to Work (GPTW) for its employees. To this end, the Company uses assessments by the external specialist organization GPTW to objectively measure organizational culture and identify improvement directions.

GPTW evaluates corporate working environments based on elements including trust, respect, fairness, pride, and camaraderie. Heesung Catalysts references these criteria to pursue a variety of measures including strengthened communication, fair evaluation and compensation, work-life balance, and the creation of a collaborative culture. In particular, the Company is improving its systems to strengthen trust within the organization and enable employees to grow based on autonomy and accountability, and is conducting improvement activities that incorporate feedback to continuously improve scores.

Heesung Catalysts will continue to build a corporate culture in which employees feel pride and can grow together, leading the sustainable development of the organization.

2025 CEO Cup Jokgu (Foot Volleyball) Tournament

Heesung Catalysts held the 2025 CEO Cup Jokgu (foot volleyball) Tournament to promote inter-department communication and improve employee health. In addition to prizes for the winning and runner-up teams, a cheering squad award was prepared so that employees who did not participate could also enjoy the event, making it a festival for everyone to share together. This resulted in a significant improvement in employee satisfaction, and the Company received positive feedback from all employees hoping for the event to be held annually. Going forward, Heesung Catalysts will keep working to build a culture where employees enjoy coming to work as part of a company that genuinely earns the title of great place to work.



Employee (Office, Production Staff) Overseas Training Programs

To strengthen global capabilities, Heesung Catalysts operates an annual overseas language study program for office staff. The four-week program supports employees in directly receiving language education at a partner educational institution in the Santa Barbara, California area of the United States to improve practical application capabilities. Production staff employees annually participate in overseas manufacturing innovation company benchmarking programs to cultivate a global mindset and strengthen human resource capabilities. Heesung Catalysts remains committed to investing in its people, supporting self-development, creating better working conditions, and building a culture where growth opportunities are accessible to everyone.



2025 Office Staff Overseas Language Study



2025 Production Staff Overseas Company Benchmarking Program

Labor Relations & Communication

Employee Communication

Heesung Catalysts pursues mutual cooperation based on trust between employees and the Company, and maintains smooth communication and collaboration through the Labor-Management Council. Employee opinions are gathered through regular meetings and reflected in the Company’s policies and decision-making, continuously protecting employee rights and improving the working environment.

2024 Key Employee Communication Activities

Communication Activity		Details
Negotiation & Consultation	Labor-Management Council operations	- Regular and ad-hoc labor-management consultations - Handling of environmental/safety grievances and employee welfare improvements; productivity promotion
	Industrial Safety & Health Committee	Announcement and consultation on safety area performance and plans
Communication & Sharing	Labor-management communication reinforcement activities	- Regular cross-level consultative meetings with field union members; - segmentation of labor-management communication channels and generational tailored activities
	Management-level field communication	- Management-level field rounds and consultative meetings - Employee club and social activity support
Organizational Culture Revitalization	Foster active participation in employee clubs	Support for in-house club activities and encouragement of active participation
	Field technical training support	Active support for field skill development training opportunities and information
	Joint labor-management social contribution activities	Joint participation in 1% donation and social volunteer activities between labor and management

Labor-Management Council & Industrial Safety & Health Committee

Heesung Catalysts pursues sustainable growth based on trust and cooperation between labor and management, and works to build transparent and sound labor-management relations. To this end, the Industrial Safety & Health Committee and the Labor-Management Council are held regularly on a quarterly basis each year to discuss a variety of matters for the promotion of worker safety and welfare.

The Industrial Safety & Health Committee addresses key agenda items including improvement of the working environment, prevention of safety accidents, and enhancement of worker health, with worker representatives and management representatives jointly participating to seek substantive improvement measures.

Through the Labor-Management Council, a variety of topics are discussed for the improvement of worker rights and the development of the Company, including working conditions, welfare and benefits, and training and development, promoting mutual understanding and cooperation. Through this regular operation of consultative bodies, Heesung Catalysts achieves smooth communication and trust-building between labor and management, playing an important role in the Company’s sustainable development and strengthening of competitiveness.

Information Sharing & Consensus Building

Heesung Catalysts builds consensus within the organization through transparent information disclosure and regular communication. Management briefings and the Labor-Management Council help employees share the Company’s vision and strategy, and collaboratively explore ideas for improving productivity and efficiency. Through this, the Company lays the groundwork for sustainable management.

(Monthly)

Town Hall Meeting

Share Company's vision and future plans

(As needed)

Information Platform

Information disclosure and strengthened communication channels with consideration for employee accessibility

(Annual)

Collaboration Program

Tiered participatory workshops and safety training

Social Contribution

Social Contribution Strategy & Framework

Heesung Catalysts has been consistently carrying out social contribution activities over many years with the goal of co-growth with local communities. The Company contributes to the improvement of local community welfare through regular donations and sharing activities, thereby fulfilling its corporate social responsibility. In addition, the Company operates various voluntary activities in which employees participate of their own accord, encouraging them to experience firsthand the importance of social contribution. These activities contribute to strengthening the Company's role as a corporate entity committed to a sustainable future. Heesung Catalysts will continue to practice sustainable management that grows alongside local communities, and will develop ever more systematic social contribution programs.

Social Contribution Activities

01

Yeongnam Region Wildfire Disaster Relief Support



In April 2025, Heesung Catalysts donated KRW 20 million to support the livelihood recovery and swift return to everyday life of residents affected by the large-scale wildfires in the Yeongnam region. This donation was made with the intention of sharing the pain of communities experiencing hardship due to the disaster and fulfilling corporate social responsibility.

Heesung Catalysts plans to continue providing practical support to neighbors in need during unforeseen disaster and crisis situations, and to consistently practice the values of solidarity and mutual growth with local communities.

02

Holiday Gift Delivery to Employees with Severe Disabilities



Heesung Catalysts delivered gifts of appreciation and encouragement to employees with severe disabilities on the occasion of the holiday season.

These employees participate in the production of ceramic birthday gifts for fellow company members, and the Company organized this activity to share its gratitude and respect for their hard work.

Through this, Heesung Catalysts practices an inclusive organizational culture that respects the diversity and dignity of all employees, and continues to work toward creating a workplace where everyone can grow together regardless of disability status.

03

Year-End Underprivileged Neighbor Support Commendation



Heesung Catalysts was awarded a commendation from the Member of the National Assembly for Siheung in December 2025 in recognition of its sustained contributions to expanding a culture of community sharing through continuous participation in year-end underprivileged neighbor support activities. This recognition represents a case where sustained social contribution activities going beyond simple sponsorship were publicly acknowledged for their outcomes.

Heesung Catalysts plans to continue providing practical support to neighbors in need and to faithfully fulfill its corporate social responsibility based on mutual growth with local communities.

04

Siheung-si Underprivileged Neighbor Support Participation



In December 2025, Heesung Catalysts participated in the Siheung-si Underprivileged Neighbor Support event and delivered support items and donations to neighbors in need within the community. This activity was conducted with the intention of sharing warmth with the local community at year-end and helping underprivileged neighbors have a more stable year-end.

Heesung Catalysts sees itself as a member of the local community. Going forward, the Company will continue to pay close attention to what the community needs and show up with practical, tangible support.

CHAPTER 05

Governance

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Ethical Management

Ethical Management Framework

Heesung Catalysts practices ethical management to realize its management philosophy of value creation through innovation and respect for human dignity. To this end, the Company has established an Code of Ethics, providing employees with a standard for the practice of ethical management. In addition, an ethics management guidance notice is distributed to all employees and partner companies twice per year to proactively prevent unethical conduct. Violations may be reported through the Company's Cyber Sinmungo (reporting system) or the Group Cyber Sinmungo.

In addition to this, employees are required to sign an ethics management pledge to emphasize and raise awareness of the importance of ethical conduct within the organization, and a variety of ethics training courses are operated to strengthen ethical awareness and disseminate it throughout the organization.



Elements of Ethical Management

01
Strengthen
corporate
ethics



02
Ethics
compliance
oversight
organization



03
Build
consensus
through
ethics training



Ethics Pledge

Heesung Catalysts has established an ethics guidelines document based on its ethics principles. The guidelines are regularly revised around transparency, fairness, customer satisfaction, human rights, and social responsibility. The Company pledges to rigorously uphold these principles to ensure the continuity of fair and transparent business operations.

- 1 I will earn customer trust through the continuous creation of value for customer satisfaction.
- 2 I will comply with relevant laws and regulations and secure competitive advantage through legitimate means.
- 3 I will pursue common development through transparent and fair transactions based on the principles of free competition.
- 4 I will establish sound values with the conviction of honesty and integrity, and fulfill my given mission through continuous self-development and fair job performance.
- 5 I will respect each employee as an individual, treat them fairly in accordance with their capabilities and achievements, and endeavor to enable the full expression of creativity.
- 6 I will lead in environmental protection and pursue the common development of society by complying with safety rules.
- 7 I will do my utmost to protect the Company's assets and information in the performance of my duties.

Business Ethics

Heesung Catalysts observes the following guidelines to ensure that all employees avoid conflicts of interest between the Company and individuals arising from or potentially arising in the performance of their duties, reject any improper instructions or pressure that compromise the fairness of job performance, and perform all duties honestly and fairly in accordance with regulations, fulfilling the obligations of their position and role.

- 1 **Prohibition of conflicts of interest** | Refrain from all acts with the potential for conflict between personal and corporate interests.
- 2 **Protection of company assets** | Company assets and facilities are to be used solely for the purpose of conducting business or for Company-approved purposes.
- 3 **Compliance with work regulations** | All work shall be conducted in compliance with relevant regulations and procedures.
- 4 **Prohibition of improper work instructions** | Mutual basic workplace courtesy shall be maintained: improper instructions using a position of superiority are prohibited.
- 5 **Contract execution** | Performed within delegated authority and in compliance with laws, Company regulations, and procedures.

Ethical Management

Ethics Training

Heesung Catalysts conducts annual online ethics management training to strengthen employees' ethical capabilities and embed an ethical culture within the organization. This training is structured around the Company's ethics code and compliance monitoring framework, and is designed through case-based learning to help employees develop ethical judgment and contribute to fair job performance.

In particular, through rigorous management and compilation of annual training data, all employees achieve 100% training completion, confirming a strong commitment to the practice of ethical management. Heesung Catalysts will continue to operate these systematic training programs to strengthen employees' ethical practice capabilities and further consolidate a fair and transparent corporate culture.

2025 Ethics Training Implementation Results

Category	Target Headcount	Trained Headcount	Completion Rate
Office staff	162	162	100 %
Production staff	349	349	100 %

Anti-Corruption & Bribery Policy

Heesung Catalysts implements a rigorous anti-corruption and bribery policy to maintain corporate sustainability and trust. All employees are prohibited from any form of fraud, corruption, bribery, or receipt of bribes in the performance of their duties, and a thorough internal control system is operated to prevent such conduct.

Through a systematic approach to anti-corruption, the Company conducts the following activities:

Corruption risk management
Identify and regularly assess risks; develop improvement plans



Anti-fraud training
Conduct regular anti-corruption training for employees to raise ethical awareness



Reporting system
Create an environment in which corrupt acts can be reported through an anonymous reporting system



Through these efforts, Heesung Catalysts aims to foster a culture of ethical conduct and uphold a business environment that is fair and free from corruption.

Fair Trade Program

Heesung Catalysts has established fair trade principles to embed a culture of fair and transparent transactions and shares these with all stakeholders. The key elements of the fair trade principles are as follows:

Fair contract execution
All contracts are concluded through transparent and fair procedures in accordance with laws and Company regulations.

Co-growth with suppliers
Equal relationships with suppliers are maintained, and co-growth is pursued based on mutual trust and respect.

Prohibition of monopoly and collusion
Free and fair competition is guaranteed in all transactions; unfair trade practices are prohibited.

Heesung Catalysts practices these principles, strengthening trust with stakeholders and creating a sustainable business ecosystem. The Company's goal is to lead an anti-corruption and fair trade culture and grow as an ethical company meeting global standards.

Fair Trade Compliance Pledge

Heesung Catalysts employees pledge, in the pursuit of fair competition and transparent management, to actively participate in the fair trade voluntary compliance program implemented by the Company, and sign the pledge committing to comply with the Monopoly Regulation and Fair Trade Act, the Fair Transactions in Subcontracting Act, and other applicable laws to help embed a culture of fair competition.

One

I shall not commit, instruct, or approve unfair trade practices, including illegal acts, against suppliers, and shall comply with all applicable fair trade laws and regulations.

Two

I shall not engage in, instruct, or approve unnecessary contact with competitors, including meetings or information exchanges, that could be construed as collusion.

Three

I shall set an example in establishing order in subcontracting transactions, including compliance with technical data request procedures, prohibition of misappropriation, and prohibition of unjust price reductions, and shall make active efforts to ensure employees' compliance with laws and regulations.

In the event of a violation of this pledge, I shall accept full responsibility as prescribed by applicable laws and Company regulations.

All Employees of Heesung Catalysts Corp.

Ethical Management

Ethics & Compliance Cyber Sinmungo (Reporting System)

To prevent internal ethics violations and corrupt acts, Heesung Catalysts operates the 'Heesung Sinmungo' within the Heesung Catalysts website, accessible to anyone. Reportable matters include employee misconduct, corporate ethics violations, and legal and regulatory violations, and all reports are processed anonymously and fairly.

Whistleblower Protection

The Company places the protection of whistleblowers' rights as its top priority and rigorously operates a whistleblower protection system to ensure that reporters do not suffer any disadvantages in the course of reporting. The system, with enhanced anonymity, keeps reporter information strictly confidential, and all report processing outcomes are transparently reported.

Three-Year Track Record

Over the past three years, Heesung Catalysts has recorded zero instances of conduct deviating from corporate ethics, demonstrating that the Company has successfully internalized a transparent and ethical culture. The Company will continue to strengthen ethical decision-making and pursue sustainable growth based on trust with stakeholders.

01

Receipt of money/gifts from business stakeholders



02

Receipt of money/gifts between internal employees



03

Unfair trade through illegal or unethical means



04

Document/data falsification and false reporting



05

Illegal/improper use and misappropriation of Company assets



06

Other violations of human rights, environmental policies, or the Company's Code of Ethics



Transparency Voluntary Disclosure System

Heesung Catalysts has introduced and operates a Transparency Voluntary Disclosure System to realize ethics management based on autonomy. This system provides employees with the opportunity to independently review their own ethical and compliance standards and to proactively disclose any matters that may violate Company regulations or negatively impact stakeholders. Where a voluntary disclosure is made, the circumstances are taken into account in determining the final decision and the level of discipline may be mitigated accordingly.

Voluntary disclosure enables self-diagnosis of personal errors and oversights, and the Company implements improvement measures for self-disclosed matters first. Through this, the Company strengthens the ethical organizational culture and prevents the recurrence of similar cases. In addition, the Company strictly observes whistleblower protection principles to ensure that employees do not suffer disadvantages from voluntary disclosures, creating a corporate culture of trust grounded in fairness and transparency.

Category	Description
Bribery	Provision and receipt of direct or indirect monetary benefits, cash, gift certificates, or other financial benefits from work-related parties or stakeholders
Entertainment / Hospitality	Receiving or requesting inappropriate entertainment or hospitality from work-related parties
Improper Expenditure	Using Company assets or resources for personal purposes or making improper expenditures
Misuse of Public Resources	Using Company public resources for personal gain
Work Procedure Violations	Violating established work-related procedures or regulations for personal gain or causing harm to the Company

Information Security

Heesung Catalysts is consistently working, alongside ongoing training, to embed a robust information security culture in which all users can operate with confidence. The Company has built and operates a rigorous and secure information security management system to safely protect important corporate information assets and the personal data of diverse stakeholders, and is raising awareness of the importance of information security through employee training.

Corporate Information Security Activities

Heesung Catalysts operates physical and technical security systems in an integrated manner to prevent property damage from security incidents. On the physical side, unauthorized access is blocked through access personnel control, escort requirements, restrictions on asset entry and exit, and designation of restricted zones. On the technical side, real-time system monitoring is used to detect security issues, and the security environment is continuously improved through internal review. Security indicators are also established to manage performance against targets, and necessary improvements are continuously pursued. Through these measures, the Company minimizes security threats and effectively protects information assets.

Information Security Declaration

Heesung Catalysts' Protected Assets	
1	State-of-the-art technology information produced internally for business operations
2	Personal information collected through business operations
3	Server/network IT infrastructure facilities for business operations
4	Important business information and work environment assets required for the conduct of business
5	Physical locations for business processing
Heesung Catalysts' Information Security Commitments	
1	Establish an information security management framework to protect information, technology, and assets.
2	Secure the human resources, facilities, and systems necessary for the performance of information security duties.
3	Establish and implement administrative, physical, and technical information security guidelines for information, technology, and assets.
4	Widely disseminate information security guidelines within the organization and conduct related training to ensure they can be practiced.
5	Establish and implement fundamental countermeasures for security incident management, business continuity management, and legal compliance.

Information Security Management Framework

To prevent information security incidents, a systematic information security framework has been established and is operated, subdivided into physical, technical, and administrative security. Annual security improvement activities are also conducted to respond to internal and external security issues.

Security Management Framework

Physical Security		Administrative Security	Technical Security
Access control		Information security training	Blueprint/document encryption
Restricted zone operations		Phishing email simulation drills	Unauthorized asset network access control
Visitor pre-registration system		Always-on system monitoring	
Asset entry/exit control		Information Security Day newsletter publication	Security solution deployment

Category	Information Security Solutions	Description
Infra	Fortigate: Next-generation firewall	Unauthorized website access control
	SSL VPN: Internal network access authentication solution	Abnormal traffic detection management
PC	Kaspersky: Antivirus / EDR	Detect and manage anomalies in all PC equipment through regular security patch applications, enabling detection and management of viruses such as ransomware
	Netclient: Asset management / Information leak prevention	
	Document Security: Document encryption (DRM)	
	AD(Active Directory): User management/control	
Application	Anti-spam: Spam sniper	Safe email reception (prevention of spam mail)
	Veritas Netbackup & VSR	System backup and rapid recovery solution
User	Security Campaign (user awareness improvement)	Security awareness management through user communication on ransomware, phishing email damage, etc.

Information Security

Personal Data Protection Management

Heesung Catalysts rigorously complies with applicable laws and regulations to safely protect the personal data of employees, customers, and stakeholders, and continuously improves its personal data processing policies. To prevent personal data leakage, data retention periods are strictly observed, and a process is operated to immediately destroy data once the purpose of collection has been achieved.

Heesung Catalysts conducts regular personal data protection training for relevant teams and employees, raising awareness of personal data protection and preventing leakage and violation cases. Collected personal data is safely managed by applying various technical protection measures including encryption and anti-hacking measures, and a framework is operated so that customers and employees can request changes and deletions of their personal data at any time.

Heesung Catalysts will continue to strengthen its personal data protection management processes to improve information security standards and fulfill its responsibilities as a trusted company.

Information Security Training

Heesung Catalysts conducts regular information security training to strengthen employees' security awareness and protect information assets. Annual company-wide training covers information security policies, security guidelines, the latest security threats, and countermeasures. In particular, quarterly information security training is conducted to support employees in strengthening their capabilities to prevent and respond to security incidents.

New hires receive training on security policies and information leakage prevention upon joining, and departing employees are required to sign a separate pledge to strengthen personal data protection obligations. Through these efforts, Heesung Catalysts works to embed an information security culture, safely protect the Company's information assets, and effectively defend the Company against security threats.

2025 Personal Data Protection & Information Security Training Results

Category	Target Headcount	Trained Headcount	Completion Rate
Office staff	162	162	100 %
Production staff	349	349	100 %

Information Security Check Day (Monthly)

To strengthen company-wide information security capabilities, Heesung Catalysts has designated the last Wednesday of every month as 'Information Security Check Day.' On this day, employees conduct self-inspections across a variety of items including PC security settings, content and document security, and desk security: unannounced inspections are also conducted when necessary to review security conditions and identify areas for improvement. In addition, strict procedures are enforced for the entry of external parties (customers and partner companies), including submission of a security pledge, issuance and return of visitor badges, and registration of items brought in, strengthening entry security.

Alongside these activities, regular training and campaign activities are conducted for employees to raise information security awareness, including malicious email responses, password management, and personal data protection, and security posters are produced and distributed within the Company to naturally embed security habits into daily work. Heesung Catalysts will continue to work toward creating a secure working environment free of information leakage incidents, with all employees taking ownership of security.

매월 마지막 주요일은 정보보안 점검의 날!

일찍 보안의식 제고 및 외부 공격으로 인한 내부정보 유출 피해 예방을 위해 정보보안 점검의 날을 지정하였습니다.

일찍 일터에서 아래내용을 참고하여, 개인이 사용하는 PC 및 보안수준을 스스로 확인/개선하시기 바랍니다.

지금, 점검을 시작하세요!

- PC 보안**
 - 백신 검사를 즉시 실행해주세요. (당사는 카스퍼스키 백신 사용)
 - 윈도우 보안 업데이트는 항상 최신으로 유지 바랍니다.
 - 최근 시 PC는 반드시 종료 바랍니다. (마실시 주의 및 종료)
- 컨텐츠 보안**
 - 의심스러운 메일은 즉시 삭제합니다.
 - 본문의 링크나 첨부파일은 절대 클릭하면 안됩니다.
 - 실행할 수 없는 웹사이트를 방문하지 않습니다. (게임, 자료공유 등)
- 데스크 보안**
 - 책상위에 중요 정보를 방지 및 노출하지 않습니다.
 - 비밀번호(프로그래밍), USB, 카메라 등(본실 시 본인 책임)
 - 책상 위/캐비닛에 방치된 대외배는 즉시 치우기 바랍니다.

이달의 보안테마

출입보안

일직원 뿐만 아니라, 외부인 출입도 보안 관리가 필요합니다. 협조사항을 안내 드립니다.

외부인(고객/협력사) 관리

(1) 출입결과 준수(출입증 발급 및 교육에 대한 협조)
(2) 개인 촬영기기에 대한 스티커 부착 / 사진촬영 금지
(3) 이동 시 반드시 당사 담당자 동행

일직원

(1) 서원승(출입카드) 휴대
(2) 비인가 구역 출입/동행 금지
(3) 외부인 방문 시 필수 동행

물리적인 방법으로 정보 유출이 가장 고전적인 정보 취득의 방법이지만, 아직도 많이 악용되고 있는 만큼 많은 관심과 협조 부탁드립니다.

이달의 보안포스터

- 나만 아는 비밀번호 만들기**
2가지 이상의 기호로 종자의 이상!
- 비밀번호 자주 바꾸기**
비밀번호 1번 이상 변경
- SMS 업로드 전 개인정보 노출 확인**
이름, 성, 연락처 등 개인정보가 공개되어 있는지 먼저 확인
- 과도한 개인정보 제공 금지**
필요한 정보까지 요구하는지 확인
만 19세 미만의 경우 발달장애인의 동의 필요
※ 사진을 찍어서는 안되는 곳이나 또는 두 번의 촬영이나 촬영하지, 단말기 등도 기밀
나의 친구, 가족의 개인정보도 타인에게 함부로 알려주지 않기
- 최소년안전 우리 키워가자**
- 의심스러운 카톡, 문자, 메일은 확인하지 않고 지우기**
링크를 클릭하거나 첨부파일을 다운로드 받을 때는 특히 조심
- 스스로 지키는 개인정보 & 정보보안**
KYWA 한국청소년활동진흥원
- 금융 컴퓨터 이용 후 반드시 로그아웃**
모든 사람이 이용하는 금융 컴퓨터 이용 후에는 반드시 로그아웃
- 모바일 App 다운로드 공식마켓에서 하기**
- 금융 환경에서 스마트폰 충전 시 데이터 유출 조심**
- 백신 프로그램, 자동 업데이트로 실시간 정보보호!**
(출처: 한국청소년활동진흥원)

Board of Directors

Board of Directors Operations

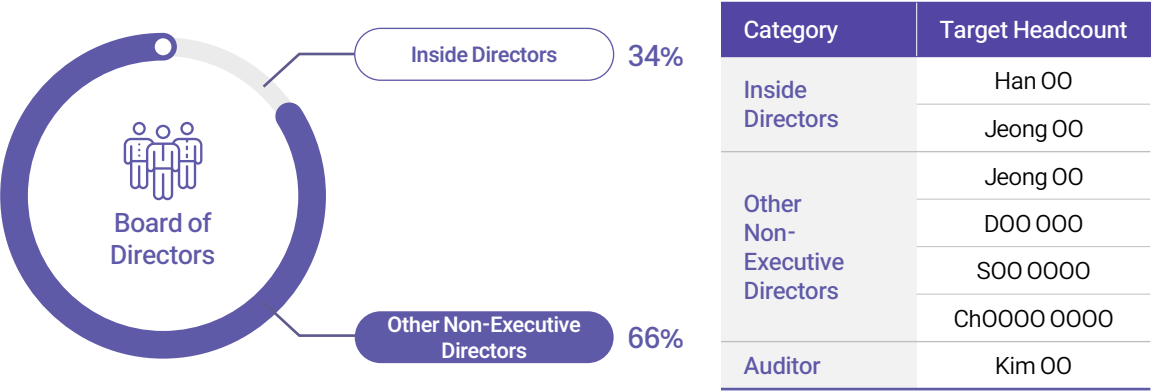
Heesung Catalysts is a joint venture between global chemical company BASF and Heesung Group, and operates a Board of Directors to make final decisions on corporate management and key business operations. The Board is composed of inside and outside directors appointed by each shareholder in accordance with the joint venture agreement and the Company's articles of incorporation, and includes an auditor to support transparent management. The Board deliberates on major management strategies for the Company's sustainable growth and decides on key management matters including business plans, financial reporting, investment approvals, and organizational restructuring. It also reviews matters delegated by the General Shareholders' Meeting and ensures fair and objective decision-making in compliance with laws and regulations. The Board meets regularly, and ad-hoc board meetings are convened when necessary to promptly discuss important management issues. ESG management strategy formulation, risk management, and compliance monitoring are also key topics of discussion.

Through these activities, Heesung Catalysts seeks to enhance management transparency, strengthen stakeholder trust, and fulfill its corporate social responsibilities. The Board actively fulfills its role to realize sustainable growth and management innovation, and operates in a direction that maximizes the value of shareholders and stakeholders.

Board Composition

Heesung Catalysts' Board of Directors is composed of 2 inside directors and 4 outside directors, with outside directors accounting for 66%, a majority. The Board is constituted through recommendations from each shareholder to strengthen the transparency and objectivity of corporate management, with an auditor also participating to fulfill an independent monitoring role. The Board meets regularly, and at each session all Board members in attendance exchange opinions on agenda items brought before the Board and make decisions; the auditor also participates in meetings to perform the management oversight function. Heesung Catalysts' Board of Directors is responsible for discussing major management strategies for the Company's sustainable growth, coordinating cooperation between joint venture partners, and deliberating on legal and ethical compliance matters. Through this, the Company responds to the global management environment and pursues sustainable management based on transparent and accountable decision-making.

Board Composition & Operations



Category	Unit	2025 Session 1	2025 Session 2	2025 Session 3	2025 Session 4
Overall Board attendance rate	%	100 %	100 %	100 %	100 %
Outside director attendance rate	%	100 %	100 %	100 %	100 %
Auditor attendance (sessions)	sessions	1	1	1	1

CHAPTER 06

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Data Center (Financial Performance)

Consolidated Statement of Financial Position

Category	Unit	2023	2024	2025
Total assets	KRW 100M	10,723	10,804	11,274
Current assets	KRW 100M	6,350	6,351	6,668
Non-current assets	KRW 100M	4,453	4,453	4,606
Total liabilities	KRW 100M	1,018	1,101	1,448
Current liabilities	KRW 100M	978	1,075	1,414
Non-current liabilities	KRW 100M	40	26	34
Total equity	KRW 100M	9,705	9,703	9,826
Total liabilities and equity	KRW 100M	10,723	10,804	11,274

Consolidated Statement of Comprehensive Income

Category	Unit	2023	2024	2025
Revenue (net sales)	KRW 100M	11,069	9,693	11,753
Gross profit	KRW 100M	1,806	1,857	1,848
Selling, general & administrative expenses	KRW 100M	176	185	227
Operating income (loss)	KRW 100M	1,630	1,672	1,620
Financial income	KRW 100M	25	77	32
Other income	KRW 100M	404	105	133
Income (loss) before income tax	KRW 100M	2,059	1,854	1,785
Income tax expense	KRW 100M	461	429	374
Net income (loss) for the period	KRW 100M	1,598	1,425	1,411

Data Center (Environmental Performance)

* Organizational boundary for environmental performance: Sihwa facility

GHG emissions

Category	Unit	2023	2024	2025
Total emissions (Scope 1 & 2)	tCO ₂ eq	23,868	24,981	26,637
Direct emissions (Scope 1)	tCO ₂ eq	8,637	8,873	8,968
Indirect emissions (Scope 2)	tCO ₂ eq	15,231	16,108	17,669
GHG intensity (Scope 1 & 2)	tCO ₂ eq/KRW 100M	2.1563	2.5772	2.2664
Other indirect emissions (Scope 3)	tCO ₂ eq	-	1,654,181	1,406,243

* GHG intensity KRW denominator: revenue for the respective year

Energy Consumption

Category	Unit	2023	2024	2025
Electricity	Mwh	32,401	34,101	37,211
LNG	thousand m ³	3,073	2,847	2,934
Steam	ton	5,463	6,972	8,973

Waste generated

Category	Unit	2023	2024	2025
Total waste generated	ton	409	436	474
General waste	ton	299	335	394
Designated waste	ton	110	101	80
Total outsourced treatment volume	ton	411	429	474
General waste	ton	305	327	394
Designated waste	ton	106	102	80
Recycled volume	ton	91	53	83
Recycling rate	%	22.2	12.3	17.5

* In some years, waste generated in a prior year is processed in the following year, resulting in treatment volumes that exceed generation volumes for that year.

Data Center (Environmental Performance)

Water Resource Management

Category	Unit	2023	2024	2025
Municipal water intake	ton	41,940	49,131	62,598
Municipal water consumption	ton	34,053	38,033	42,893
Wastewater discharge	ton	7,887	11,098	19,705
Wastewater generation rate	%	19	23	31

Water Quality Pollutants

Category	Unit	2023	2024	2025
TOC	ton	0.111	0.032	0.138
BOD	ton	0.019	0.101	0.042
SS	ton	0	0.032	0.050

Hazardous Chemicals

Category	Unit	2023	2024	2025
Hazardous chemical substance emissions	kg	382	1451	1,116

Hazardous Chemicals

Category	Unit	2023	2024	2025
NOx	ton	3.1	3.0	2.7
SOx	ton	1.4	0.3	0.2
PM (Particulate Matter)	ton	1.6	1.6	1.4

Environmental Management System Certification (ISO 14001)

Category	Unit	2023	2024	2025
Certification adoption rate	%	100	100	100

Environmental Training

Category	Training Program	Participants	Hours (hr)
1	Integrated Environmental Management Practical Course	1	8
2	General Water Quality Environmental Engineer	2	14
3	Advanced Air Quality Environmental Engineer	2	28
4	Hazardous Chemical Substance Manager - Statutory Training	1	16
5	Integrated Environmental Management Supervisor - Statutory Training	1	40

Environmental Investment Performance & Plans

Category	Investment Item		Amount
2025 Results	1	Environmental abatement facility improvement	KRW 341 million
	2	Construction of wastewater transfer system for the Company's Doyak Building	KRW 234 million
	3	Installation of SCR #4 air pollution abatement facility	KRW 288 million
Total			KRW 863 million
2026 Plan	1	Environmental abatement facility improvement	KRW 500 million
	2	Construction of new PGM process abatement facility and outsourced wastewater treatment system	KRW 600 million
	3	Installation of SCR #4 air pollution abatement facility	KRW 1,002 million
Total			KRW 2,102 million

Data Center (Social Performance)

Workforce Overview

Category	Unit	2023	2024	2025
Total workforce	persons	519	528	562
Male employees	persons	484	488	519
Female employees	persons	35	40	43
Female employee ratio	%	6.7	7.6	7.7
Total permanent employees	persons	466	471	487
Permanent - male	persons	444	449	461
Permanent - female	persons	22	22	26
Total contract employees	persons	53	57	75
Contract - male	persons	40	39	58
Contract - female	persons	13	18	17
Executive-level employees	persons	9	8	10
Executive-level - male	persons	9	8	10
Executive-level - female	persons	0	0	0
Vulnerable-group employees	persons	0	0	0
Managerial employees	persons	130	129	128
Managerial - male	persons	115	112	111
Managerial - female	persons	15	17	17
Non-managerial employees	persons	389	399	434
Non-managerial - male	persons	369	376	408
Non-managerial - female	persons	20	23	26

New Hires

Category	Unit	2023	2024	2025
Total new hires	persons	66	53	79
Male new hires	persons	55	40	70
Female new hires	persons	11	13	9
Male new hire ratio	%	83.3	75.5	88.6
Female new hire ratio	%	16.7	24.5	11.4

Employee Retention

Category	Unit	2023	2024	2025
Total departures	persons	24	17	15
Overall employee turnover rate	%	4.6	3.2	2.7
Average years of service	years	11.9	12.2	11.7
Average years of service-male	years	12.0	12.4	11.9
Average years of service-female	years	10.4	9.3	9.3

Employment of Socially Vulnerable Groups

Category	Unit	2023	2024	2025
Employees with disabilities	persons	5	7	7
Disability employment rate	%	1	1.3	2.06
National merit award recipients	persons	0	0	0
National merit award recipient ratio	%	0	0	0

Data Center (Social Performance)

Parental Leave

Category	Unit	2023	2024	2025
Employees eligible for parental leave	persons	130	111	155
Male	persons	124	106	149
Female	persons	6	5	6
Parental leave users	persons	2	0	1
Male	persons	1	0	0
Female	persons	1	0	1
Parental leave return rate - male	%	100	-	-
Parental leave return rate - female	%	100	-	100
Maternity/paternity leave users	persons	1	0	1
Male	persons	0	0	0
Female	persons	1	0	1

Talent Development & Capability Building

Category	Unit	2023	2024	2025
Total employee training hours	Hr	5,392	26,418	27,521
Training hours per employee	Hr	10	50	53
Total employee training expenditure	KRW thousand	64,518	293,040	319,343
Training expenditure per employee	KRW thousand	124	555	618

Human Rights Training

Category	Unit	2023	2024	2025
Total human rights training hours	hours	2,068	2,657	884
Human rights training hours per employee	hours	4	5	1.7
Human rights training completions	persons	517	526	133
Human rights training completion rate	%	100	100	26

Child & Forced Labor

Category	Unit	2023	2024	2025
Child / underage worker hires	cases	0	0	0
Child / forced labor incidents	cases	0	0	0
Child / forced labor training completions	persons	0	0	0
Child / forced labor training completion rate	%	0	0	0

Employee Benefits

Category	Unit	2023	2024	2025
Flexible working system users	persons	0	167	167
Total welfare & benefits expenditure	KRW 100M	25.33	20.08	23.28
Welfare & benefits expenditure per employee	KRW thousand	4,900	3,804	4,342

Labor Relations

Category	Unit	2023	2024	2025
Labor-Management Council member count	persons	14	20	20

Data Center (Social Performance)

Employee Safety

Category	Unit	2023	2024	2025
Average weekly working hours per employee	hours	38.4	38.6	38.0
Average weekly overtime hours per employee	hours	0	0	0
Total annual working hours	hours	1,997	2,007	1,976
Lost workdays	days	0	0	180
Lost-time injury cases	cases	0	0	1
Number of injured workers	persons	0	0	1
Occupational disease cases	persons	0	0	0
Fatalities (employees)	persons	0	0	0
Fatalities (contractors)	persons	0	0	0
Occupational accident rate	%	0	0	0
Injury rate per 1,000 workers	‰	0	0	3.5
Regular employees	‰	0	0	3.7
Managerial employees	‰	0	0	4.1
Contract employees	‰	0	0	0
Contractors	‰	0	0	0
Lost-time injury frequency rate (LTIFR)	cases/million hours	0	0	0.94
Contractors Lost-time injury frequency rate (LTIFR)	cases/million hours	0	0	0

Employee Health

Category	Unit	2023	2024	2025
Safety & health training completions	persons	465	481	494
Safety & health training completion rate	%	100	100	100
Quit smoking campaign participants	persons	0	4	9
Walk challenge participants	persons	0	380	362
CPR training participants	persons	0	160	0 (not conducted)
Musculoskeletal stretching class participants	persons	0	80	0 (not conducted)

Employee Health Check-ups

Category	Unit	2023	2024	2025
Comprehensive health check-ups completed	persons	163	301	225
Male	persons	153	288	216
Female	persons	10	13	9
Special / general health check-ups completed	persons	293	354	393 (373)
Male	persons	284	342	376 (358)
Female	persons	9	12	17 (15)

Safety & Health Management System Certification (ISO 45001)

Category	Unit	2023	2024	2025
Certification adoption rate	%	100	100	100

Data Center (Social Performance)

Social Contribution

Category	Unit	2023	2024	2025
Total social contribution expenditure	KRW million	46	39	52.5
Direct donations	KRW million	13	7	20
Event support	KRW million	0	0	2.5
In-kind donations	KRW million	33	32	30
Volunteer activities	KRW million	0	0	0

Supply Chain Information

Category	Unit	2023	2024	2025
Total number of suppliers	companies	123	113	122
Key suppliers	companies	19	19	19
Suppliers that signed Supplier Code of Conduct	companies	0	0	0
Supplier Code of Conduct sign-on rate	%	0	0	0
Suppliers subjected to ESG assessment	companies	0	11	11
Supplier ESG assessment rate	%	0	9	9

Automotive Quality Management System Certification (IATF 16949)

Category	Unit	2023	2024	2025
Certification adoption rate	%	100	100	100

Data Center (Governance Performance)

Compliance

Category	Unit	2023	2024	2025
Environmental regulatory violations	cases	0	0	0
Environmental regulatory fines	KRW	0	0	0
Monopoly Regulation and Fair Trade Act violations	cases	0	0	0
Monopoly Regulation and Fair Trade Act fines	KRW	0	0	0
Safety regulatory violations	cases	0	0	0
Safety regulatory fines	KRW	0	0	0
Personal data protection violations	cases	0	0	0
Personal data protection fines	KRW	0	0	0
Information security violations related to customer data	cases	0	0	0

Child & Forced Labor

Category	Unit	2023	2024	2025
Internal reports filed	cases	0	0	0
Internal reports resolved	cases	0	0	0
Internal report resolution rate	%	0	0	0
External reports filed	cases	0	0	0
External reports resolved	cases	0	0	0
External report resolution rate	%	0	0	0

Data Center (Governance Performance)

Ethical Management

Category	Unit	2023	2024	2025
Ethics training completions	persons	506	158	88
Male	persons	471	130	76
Female	persons	35	28	12
Ethics training completion rate	%	99	32	17
Ethics pledge signatories	persons	492	496	517
Anti-corruption incidents	cases	0	0	0
Anti-corruption incidents resolved	cases	0	0	0
Anti-corruption resolution rate	%	0	0	0

Information Security

Category	Unit	2023	2024	2025
Information security incidents	cases	0	0	0
Information security training completions	persons	97	84	88

Intellectual Property Rights

Category	Unit	2023	2024	2025
Patent registrations	cases	18	13	22
Patent applications	cases	31	42	36

Research & Development

Category	Unit	2023	2024	2025
R&D personnel (dedicated staff)	persons	55	55	60
R&D investment	KRW 100M	382	383	280
R&D investment as % of revenue	%	2.5	2.5	2.4

Board Composition

Category	Unit	2023	2024	2025
Inside directors	persons	6	2	2
Other non-executive directors	persons	0	4	4
Female directors	persons	0	0	0
Non-executive director ratio	%	0	66	66
Female director ratio	%	0	0	0

Board of Directors Operations

Category	Unit	2023	2024	2025
Board meetings held	sessions	6	4	2
Overall board attendance rate	%	86	100	100
Non-executive director attendance rate	%	0	100	100

GRI Content Index

- Statement of use

In reporting sustainability management activities from January 1 to December 31, 2025, this report has been prepared with reference to the GRI Standards.
- GRI 1 used

GRI 1 : Foundation 2021
- Applicable GRI Sector Standard

As of the publication date, no sector standard (Sector Standards) for the automotive parts industry applicable to this reporting organization has been finalized and therefore none has been applied.

GRI Standards

Category	No.	Indicator	Report Location	Remarks
GRI 2 : General Disclosures 2021				
General Disclosures	2-1	Organization details	6	
	2-2	Entities included in the sustainability report	2	
	2-3	Reporting period, frequency and contact point	2	
	2-4	Restatements of information	74	
	2-5	External assurance	78 - 79	
	2-6	Activities, value chain and other business relationships	7 - 12	
	2-7	Employees	69	
	2-9	Governance structure and composition	15, 65	
	2-10	Nomination and selection of the highest governance body	65	
	2-11	Chair of the highest governance body	65	
	2-12	Role of the highest governance body in overseeing the management of impacts on the economy, environment, and people	15, 65	
	2-13	Delegation of responsibility for managing impacts	15, 41, 65	
	2-14	Role of the highest governance body in sustainability reporting	15, 65	
	2-22	Statement on sustainable development strategy	5	
	2-23	Policy commitments	23, 37, 47, 61	
	2-24	Embedding policy commitments	24 - 25, 38 - 39, 47, 61 - 63	
	2-25	Processes to remediate negative impacts	38, 50	
	2-26	Mechanisms for seeking advice and raising concerns	38, 62	
	2-27	Legal and regulatory compliance	72 - 73	
	2-29	Approach to stakeholder engagement	17	
	2-30	Collective bargaining agreements		Labor conditions are determined pursuant to the Company's work rules

Topic Standards(GRI 200, 300, 400)1

Topic	Index	Description	Report Location	Notes
GRI 3 : Material Topics 2021				
Materiality Topics	3-1	Process to determine material topics	18	
	3-2	List of material topics	19	
	3-3	Management of material topics	20	
GRI 201 : Economic Performance	201-1	Direct economic value generated and distributed	67	
GRI 203 : Indirect Economic Impacts	203-1	Infrastructure investments and services supported	58	
GRI 205 : Anti-corruption	205-2	Communication and training about anti-corruption policies and procedures	60	
	205-3	Confirmed incidents of corruption and actions taken	62, 73	
GRI 206 : Anti-competitive practices	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	72 - 73	
GRI 302 : Energy	302-1	Energy consumption within the organization	67	
	302-4	Energy savings	28	
GRI 303 : Water and Effluents	303-4	Water discharge	33, 68	
	303-5	Water consumption	33, 68	
GRI 305 : Emissions	305-1	Scope 1 : Direct GHG emissions	28, 67	
	305-2	Scope 2 : Indirect GHG emissions	28, 67	
	305-3	Scope 3 : Other indirect GHG emissions	29, 67	
	305-4	GHG emissions intensity	67	
	305-5	Reduction of GHG emissions	28, 67	
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	68	

GRI Content Index

Topic Standards(GRI 200, 300, 400)

Topic	Index	Description	Report Location	Notes
GRI 306 : Waste	306-2	Waste management methods	31	
	306-3	Total waste generated	67	
	306-4	Waste treatment volume by treatment method	67	
GRI 401 : Employment	401-1	New hires and turnover	69	
	401-2	Benefits provided to full-time employees not available to temporary or part-time employees	55 - 56	
	401-3	Parental leave	70	
GRI 403 : Occupational Health and Safety	403-1	Workplace health and safety management system	40 - 45	
	403-2	Identification of risk factors, risk assessment, accident investigation	44	
	403-3	Workplace medical services	45	
	403-4	Communication, data, and worker participation related to workplace health and safety	40 - 45	
	403-6	Promotion of worker health	45, 69	
	403-7	Prevention and mitigation of workplace health and safety impacts directly linked to business relationships	42, 69	
	403-8	Workers covered by an occupational health and safety management system	40	
	403-9	Work-related injuries	71	
	403-10	Work-related illnesses	71	
	404-1	Average hours of training per employee	70	
GRI 404 : Training and Education	404-2	Programs for upgrading employee skills and transition assistance programs	52 - 53	
	404-3	Percentage of employees receiving regular performance and career development reviews	54	
GRI 408 : Child Labor	408-1	Operations and suppliers at significant risk for incidents of child labor	47, 70	

Topic Standards(GRI 200, 300, 400)

Topic	Index	Description	Report Location	Notes
GRI 409 : Forced Labor	409-1	Operations and suppliers at significant risk for incidents of forced labor	20, 70	
GRI 418 : Customer privacy protection	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	73	

Third-Party Assurance Statement

Introduction

Korean Standards Association (“KSA”) was commissioned by HEESUNG CATALYSTS (“the Company”) to perform a third-party Assurance Engagement of ‘HEESUNG CATALYSTS Report’ (“the Report”). KSA presents independent opinions as follows as a result of the feasibility of the data contained in this Report. The Company has sole responsibility for the content and performance contained in this Report.

Independence

As an independent assurance agency, KSA does not have any kind of commercial interest in businesses of the Company apart from undertaking a third-party assurance on the Report. KSA has no other contract with the Company that may undermine credibility and integrity as an independent assurance agency.

Assurance Standard and Scope

- **Assurance Standard:** AA1000AS v3
- **Assurance Level and Type:** Moderate Level (Normal), Type 2
Note: Moderate assurance has a lower level of confidence than high assurance because it is based on limited evidence.
- **Assurance Scope:** The assurance scope includes systems and activities such as sustainability management policies, goals, businesses, standards, and achievements of the Company during the reporting period. While the Company’s environmental and social data, as well as financial data in a broad sense, was verified, the scope of review concerning stakeholder engagement was limited to the materiality assessment process.
- - in adherence with the four principles of AA1000AP(AccountAbility Principles) 2018

Assurance Methodology

KSA used the following methods to gather information, documents, and evidence with respect to the assurance scope.

- Confirmation of stakeholder engagement and materiality assessment process by the sustainability expert.
- Verification of environmental information disclosure data and information by the environmental expert.
- Examination of internal documents and basic materials.

Assurance Limitations

KSA assumed that the data and evidence provided by the Company were complete and sufficient. KSA provided limited assurance through data inquiry and analysis as well as limited sampling methods.

Assurance Results and Opinion

KSA reviewed the draft version of this Report within the scope of this assurance and presented our opinions as an assurance provider. Modifications were made to the Report content if deemed necessary. KSA was not aware of any suspicions of significant errors or inappropriate descriptions in this Report as a result of our Assurance Engagement. As such, KSA presents our opinions of the ‘HEESUNG CATALYSTS Report’ as follows.

Third-Party Assurance Statement

Inclusivity

Has the Company engaged its stakeholders in strategically responding to sustainability?

KSA believes the Company is aware of the importance of stakeholder engagement and is making an all-out effort to establish a process that will increase their engagement. The Company has selected stakeholder groups including shareholders and investors, customers, local communities, suppliers, government agencies, and employees, and has communication channels for each group to receive diverse feedback and opinions.

Materiality

Has the Company included material information in the Report to help stakeholders make informed decisions?

KSA is not aware of any significant omissions or exclusions of data that are material to stakeholders. KSA verified that the Company conducted a materiality assessment with issues identified from analyses of internal and external environments and reported according to the result.

Responsiveness

Has the Company appropriately responded to stakeholder requirements and interest in this Report?

KSA verified that the Company responded to stakeholders' needs and interests by reflecting stakeholders' opinions in the Report. KSA is not aware of any evidence that the Company's response to significant issues of stakeholders was reported inappropriately.

Impact

Has the Company appropriately monitored its impact on the stakeholders?

KSA verified that the Company is monitoring and assessing its impact on the stakeholders by conducting an enhanced verification of its standard business activities. Furthermore, it has been verified that the Company appropriately publishes its findings in the Report.

Reliability and quality of specified performance

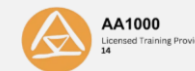
Has the Company appropriately collected and disclosed specified performance information based on a reliable process?

The assurance provider performed a reliability assurance of the sustainability performance information on the subject of Type 2 assurance. To assure this information, interviews were conducted with relevant personnel, and it was determined that the performance information disclosed in the Report was collected and disclosed based on a reliable process and evidence. Additionally, no evidence was found indicating that specific sustainability information was inaccurately reported.

June 2026

Korean Standards Association Chairman & CEO Dong Min Moon

Dongmin Moon



The Korean Standards Association (KSA), established as a special corporation in accordance with the Law for Industrial Standardization in 1962, serves as a knowledge service provider that distributes and disseminates such services as industrial standardization, quality management, sustainability management, KS certification and ISO certification. The KSA is committed to the sustainable development of Korean society as an ISO 26000 national secretary, AA1000 assurance provider, KSI (Korea Sustainability Index) operator, and as an assurance provider of the Korean government's greenhouse gas energy target management system.

THANK YOU

SUSTAINABILITY REPORT 2026

HEESUNG CATALYSTS CORP.
SUSTAINABILITY REPORT 2026



**A Sustainable Future
Driven by Catalyst
Innovation**

Heesung Catalysts provides innovative catalyst solutions to address environmental challenges in preparation for a carbon-neutral era.