

BE THE BEST, MAKE A DIFFERENCE



About This Report

This is our second sustainability report, following the inaugural edition in 2023, prepared to communicate our efforts and achievements in sustainable management over the past year. The report has been developed in alignment with international reporting standards and presents our business activities and performance in addressing a wide spectrum of ESG matters, including key topics identified through a dual materiality assessment.

Reporting Period

This report encompasses our activities from January 1 to December 31, 2024, along with key developments through the first half of 2025. It includes quantitative data for the period 2022–2024 to support comprehensive trend analysis.

Reporting Scope

This report focuses on our domestic business sites—the head office in Seoul and the plants in Ulsan, Angang, and Busan—covering activities and achievements in sustainable management, including non-financial information. For selected reporting items, data from overseas subsidiaries is also included, with footnotes highlighting any differences in reporting scope for stakeholders.

Reporting Standards

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards 2021 and with reference to the principles of the United Nations Global Compact. Financial data is presented on a separate basis in accordance with K-IFRS, while information prepared on a consolidated basis is separately disclosed in the relevant sections.

Report Assurance

To ensure the accuracy and credibility of this report and its data, it has been verified by Korea Management Registrar, an independent third-party assurance provider. Our greenhouse gas emissions have been separately validated by the Korean Standards Association. The assurance results are provided in the [Appendix](#).

Inquiries Regarding This Report

We publish our ESG reports and related activities in the Sustainable Management section of our company website (<https://www.poongsan.co.kr/>). For inquiries regarding this report, please contact:

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Team in charge	Planning Team 1
E-Mail	esg@poongsan.co.kr

Interactive PDF

For the reader’s convenience, the icons at the top of each page provide quick links to relevant sections of the report.



Management Message

Dear Valued Stakeholders,

Following the release of our first sustainability report in 2024, Poongsan is pleased to present its second report in 2025.

This report reflects our ongoing commitment to sustainable management and outlines our strategic direction in a rapidly changing global environment.

In 2024, the global economy continued to face significant headwinds—from slow growth and rising protectionism to persistent inflation. Despite these challenges, Poongsan achieved solid results, recording KRW 4.5 trillion in sales and KRW 320 billion in operating profit, thanks to your unwavering support.

Looking ahead, uncertainty remains elevated for Korea's export-driven economy, amid China's economic slowdown, widening growth disparities among major economies, and intensified trade barriers. Meanwhile, the expectations placed on corporations to address climate risks and contribute positively to society continue to grow.

In response, major economies including the EU are mandating ESG disclosures, and Korea is also preparing its own comprehensive ESG reporting framework.

At Poongsan, we are not simply responding to these changes—we aim to lead. Guided by our core value of responsible management, we have established the POONGSAN WAY as our ESG vision and will focus on the following priorities:

First, we will develop an integrated environmental strategy aligned with international standards by strengthening our environmental management systems, enhancing climate resilience, and accelerating our transition to low-carbon, eco-friendly operations.

Second, to build on our 2024 achievements and ensure long-term growth, we will advance our portfolio of high-performance, sustainable products, optimize smart manufacturing, diversify our business, and expand our global presence.

Third, we are committed to fostering a safe, inclusive, and engaging workplace. Through robust HSE (Health, Safety & Environment) practices and a culture of open communication, we will promote the well-being of our employees as a foundation for sustainable growth.

Lastly, we will strengthen partnerships across our value chain and fulfill our role as a responsible corporate citizen, creating shared value for all stakeholders.

Poongsan's continued growth amid global uncertainty is made possible by your trust and support. We deeply appreciate this, and **we remain committed to evolving our ESG management system as we realize the vision of the POONGSAN WAY.**

Chief Operating Officer / Vice Chairman **Park Woo-dong**

CONTENTS

PSC Overview		PSC ESG Performance		Appendix	
About The Company	06	E ENVIRONMENTAL	19	Financial Information	63
Global Network	07	E1 Environmental Management	19	Separate Financial Statements Basis	63
Corporate History	08	E2 Climate Change Response	22	Consolidated Financial Statements Basis	64
Product Overview	09	E3 Minimizing Environmental Impact	26	Non-financial Information	65
		E4 Circular Economy	28	Environmental	65
				Social	71
		S SOCIAL	31	Governance and Economy	75
		S1 Occupational Safety and Health	31	Association Memberships	77
		S2 Supply Chain Management	37	Major Certifications Obtained	78
		S3 Human Resources	40	GRI Index	79
		S4 Community Engagement	44	SASB Index	82
		S5 Information Security	45	UN SDGs-aligned Activities	83
		S6 Quality Management	47	GHG Emissions Verification Statement	84
				Independent Assurance Report	85
2024 ESG Management & Strategy		G GOVERNANCE AND ECONOMY	49		
2024 ESG Key Initiatives	13	G1 Sound Corporate Governance	49		
2024 ESG Value Chain	14	G2 Ethical Management	53		
2024 ESG Highlights	15	G3 Enterprise Risk Management	56		
Double Materiality Assessment	16	G4 Tax Management	58		
		G5 Sustainable Innovation and Technology	59		
		G6 Stakeholder Communication	61		



PSC Overview

About The Company	06
Global Network	07
Corporate History	08
Product Overview	09

About The Company

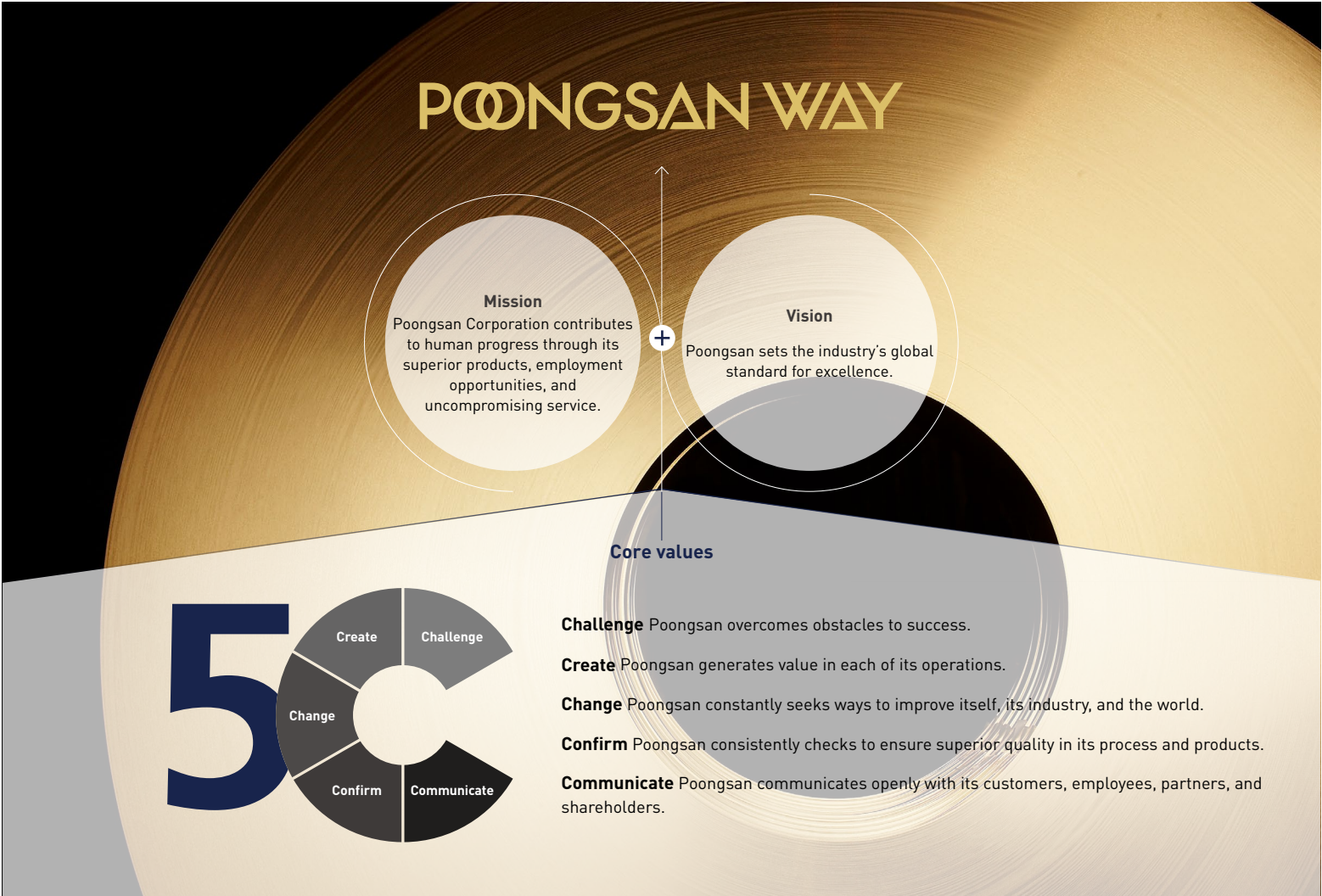
Company Overview

Poongsan leverages its extensive expertise in the copper, copper alloy, and defense industries to drive dynamic growth, utilizing cutting-edge technologies to uphold the highest standards of quality. We produce and supply a broad range of nonferrous metal products, including copper and copper alloys, as well as defense products such as ammunition, and are also expanding into the precision machining sector. Our global strategy is underpinned by four manufacturing facilities in Ulsan, Busan, and other cities, along with 13 subsidiaries in Korea and overseas.

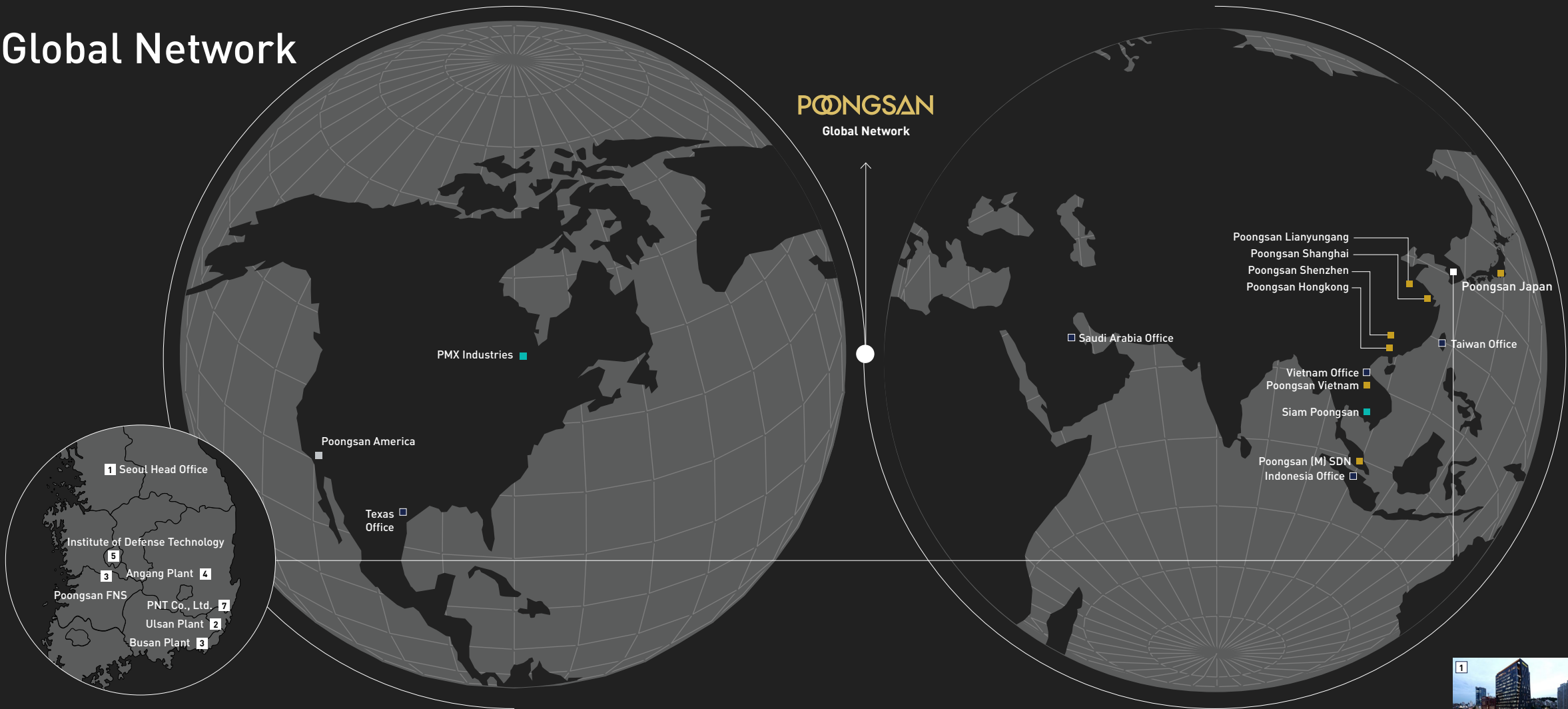
Management Philosophy

At the core of our company is the POONGSAN WAY, a shared set of values that shapes our future and guides the actions of all our employees. It expresses our aim for every member of Poongsan to serve as a channel for humanity’s aspirations, just as highly conductive copper transmits energy, and play a leading role in building a more prosperous and peaceful world. By practicing the POONGSAN WAY, we will realize our corporate vision and, as a responsible member of society, contribute to promoting peace and well-being for humanity.

Company Name	Poongsan Corporation
CEO	Ryu Jin [Chairman & CEO], Park Woo-dong [Vice Chairman & COO]
Date of Establishment	July 1, 2008 (Newly formed as a result of a spin-off)
Head Office Address	Poongsan Bldg., 23, Chungjeong-ro, Seodaemun-gu, Seoul, South Korea
Company Website	www.poongsan.co.kr
Business Areas	Production and sales of copper and copper alloy and defense products
Employees	3,698



Global Network

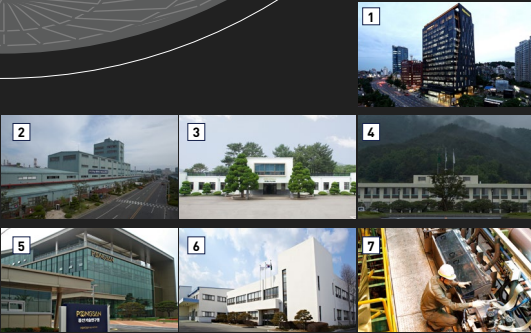


Poongsan’s global network comprises its head office, four business sites, and two subsidiaries in Korea, as well as production and sales subsidiaries and offices in nine countries, including Japan, Vietnam, China, Malaysia, Thailand, and the United States.

- Sales subsidiaries
- Manufacturing and sales subsidiaries
- Trading subsidiaries
- Overseas offices

Category	Site Name	Location	Main Products
Domestic sites	1 Seoul Head Office	Seoul	
	2 Ulsan Plant	Ulsan	Copper & copper alloy, lead frames, billets
	3 Busan Plant	Busan	Small-caliber ammunition, sporting ammunition, special-purpose ammunition
	4 Angang Plant	Angang	Medium- and large-caliber ammunition, propellants, precision forgings

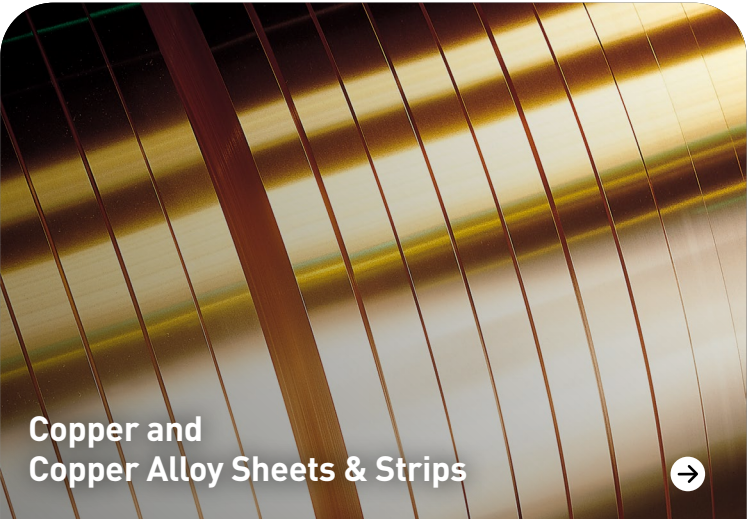
Category	Site Name	Location	Main Products
Domestic sites	5 Institute of Defense Technology	Daejeon	Defense products
	6 Poongsan FNS	Nonsan	Fuzes, sensors
Domestic subsidiaries	7 PNT Co., Ltd.	Ulsan	Tin-plated copper alloy materials





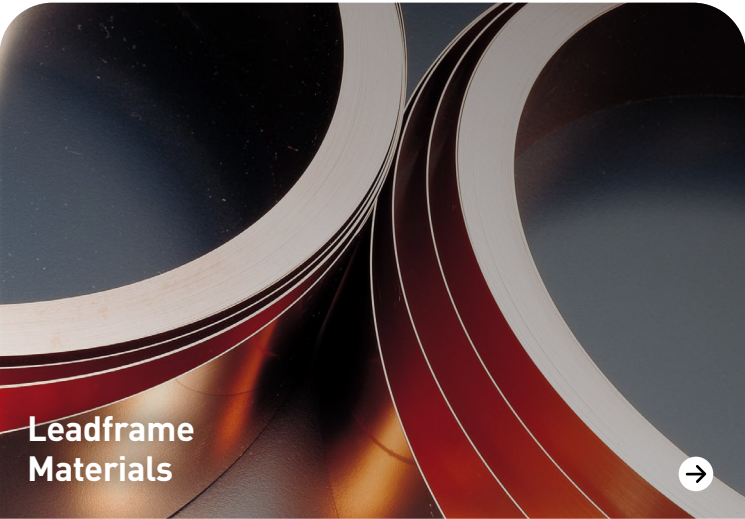
2008 JUL Establishment of Poongsan Holdings Corporation SEP Poongsan exceeded USD 100 million in defense exports DEC Poongsan received Korean Ministry of National Defense Award in recognition of its defense product exports	2009 DEC Poongsan honored with Defense Quality Management Grand Prix Award	2010 DEC Poongsan exceeded KRW 2 trillion in sales 2011 MAR Poongsan received the Presidential Award for Meritorious Contribution to Unified Defense NOV Poongsan awarded the USD 900 Million Export Tower Award	2012 OCT Chairman Jin Ryu awarded the Moran Medal, the second highest Order of Civil Merit NOV Angang Plant awarded the Presidential Award for Quality Management Innovation	2013 FEB Angang Plant obtained ISO27001 and AS9100	2015 NOV Angang Plant honored with a Presidential Award at National Quality Management Convention	2016 SEP Chairman Jin Ryu won the Korea-America Friendship Award from Korea-America Association 2018 OCT Poongsan celebrated its 50th anniversary	2021 DEC Angang Plant awarded the Silver Tower Order of Industrial Service Merit at the National Quality Management Convention 2022 OCT Poongsan Group won the James A. Van Fleet Award NOV Poongsan received the Gold Tower Order of Industrial Service Merit at the National Productivity Awards	2023 APR Chairman Jin Ryu presented with a plaque of appreciation from Korea Electric Terminal in recognition of his contributions to stable material supply and development MAY Poongsan selected as an outstanding company for promoting price adjustment system OCT Defense R&D Institute acquired the highest rating of Level 5 of the international standard CMMI Poongsan celebrated its 55th anniversary DEC Poongsan won the Presidential Award at the National Quality Management Convention	2024 MAR Poongsan established a subsidiary in Vietnam MAY Marked the 24th anniversary of the labor-management cooperation declaration JUL Poongsan received the Seoul Metropolitan Government's Excellent Donor Commendation SEP Poongsan earned an Excellent grade in the Win-Win Growth Index evaluation NOV Poongsan won the Excellence Award at the 1st Safety Culture Innovation Awards DEC Poongsan achieved record-high defense sales, exceeding KRW 1 trillion Poongsan named an outstanding company in the 2024 subcontract price indexation program
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Product Overview



Poongsan produces a wide range of copper and copper alloy sheets and strips for use across many industries, from everyday copper products to high-tech industrial materials. Renowned for their premium quality both at home and abroad, our products are used in a wide range of industries and applications, including automobiles, electronics, semiconductors, telecommunications, construction, machinery, household goods and antibacterial materials.

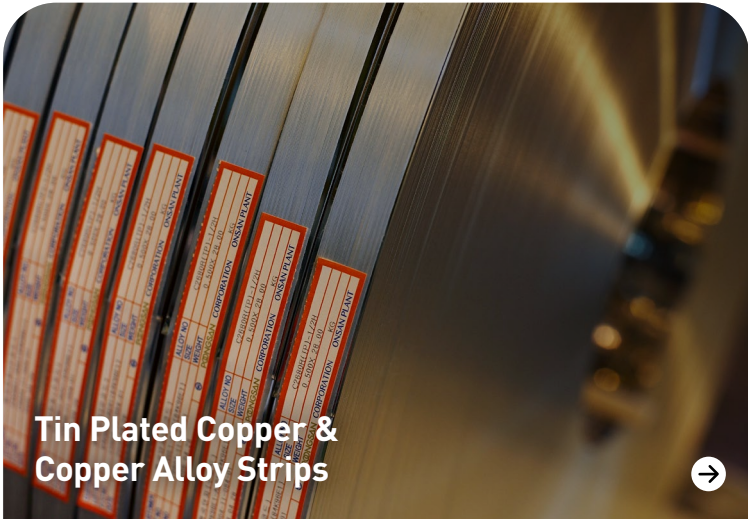
These rolled products are available in a variety of alloys, including copper, brass, phosphor bronze, nickel silver, cupro-nickel, and other specialized alloys (PMC26 and others), depending on the alloy composition and casting method. In response to market demands for new high-strength and high-conductivity copper alloys driven by technological advancements such as the Internet of Things and electric vehicles, we have developed new alloys (P1000HS and others) and incorporated them into high-tech products tailored to customer specifications.



Building on our extensive production experience and accumulated expertise in the non-ferrous metals industry, Poongsan has developed a wide range of copper alloys. Leveraging this capability, we have created advanced materials for use in semiconductor leadframes and connectors, making a significant contribution to the growth of the semiconductor and electronic component industries.

PMC102 and PMC102M offer the ideal properties required for semiconductor leadframes, including outstanding electrical and thermal conductivity. They also provide superior strength and thermal stability at high temperatures. Based on this technological excellence, we have secured patents for these alloys in major economies such as the United States and Japan.

In addition to the proprietary PMC102 series, we supply a wide variety of high-quality materials, such as C194, for use in transistors, power transistors, and heat sink components.



Poongsan, through its subsidiary PNT, also manufactures and supplies tin-plated copper and copper alloy materials, which are widely used for electrical contacts and various contact terminals in automobiles, electrical and electronic appliances, and information and communication equipment.

The tin-plated materials are manufactured from copper and copper alloy base materials and subsequently undergo surface treatment via the reflow method of heating and melting, resulting in a uniform plating thickness and excellent surface brightness.

Furthermore, the materials exhibit excellent welding and corrosion resistance properties, and have a long-lasting plating layer that resists deterioration. This makes them ideal for use in various electrical and electronic components, including switches, connectors, terminals, and relays.

Product Overview



Coin Blanks

Poongsan takes particular pride in its coin blanks – metal disks prepared for minting and devoid of any designs, denominations, or year of issue. We are responsible for the casting of over 50 distinct types of coin blanks, representing more than half of the global coin blank trade volume. Poongsan commenced the supply of coin blanks domestically in 1970 and has since grown to become the world’s largest coin blank manufacturer, supplying over 70 countries worldwide. Additionally, we produce and export bi-metal and clad metal coin blanks and supply Euro coin blanks to EU countries as a recognized participant in the production of the Euro.



Copper and Copper Alloy Rods, Bars, & Wires

Poongsan’s production process encompasses the full range of operations, from casting to shaving, enabling the company to manufacture copper and copper alloy rods, bars, and wires of various specifications, which are tailored to meet the specific demands of a diverse customer base. Our products are used extensively in a variety of applications, including bolts, nuts, valves, electrical and mechanical components, as well as accessory parts for automobiles and diverse industrial machinery. Free-cutting brass bars, which exhibit superior weldability and machinability, are frequently utilized in the production of high-precision components.

Moreover, our special brass rods for EDM wires are in high demand for electrical discharge machining (EDM) of hard metals, such as cemented carbide, which are difficult to cut and machine. In recent times, Poongsan has concentrated its efforts on the development of new products, including environmentally friendly lead-free brass (bio-brass), faucet fittings and a range of other products for the craft industry.

Product Overview



Poongsan produces all types of ammunition used by the military, from 5.56 mm small-caliber cartridges to 155 mm howitzer projectiles. In recent years, we have developed a variety of innovative munitions, including anti-tank ammunition with enhanced penetration, extended-range munitions, Goalkeeper ammunition for South Korean destroyers, and dual-purpose munitions. We also participate in the joint development of the Multiple Launch Rocket System (MLRS) and are responsible for warhead assemblies, including submunitions. With globally competitive ammunition technology, we will continue to improve the performance of existing products while developing high-precision ammunition and new solutions in emerging fields such as drop-attack combat drones and multi-purpose combat drones. These efforts will contribute to self-reliance in national defense.



Our PMC (Precision Made Cartridges) brand is recognized worldwide as a leader in sporting ammunition. We ensure perfect performance through rigorous inspections and quality testing, and our products are widely acknowledged by users for their superior quality. Competing alongside the world's top sporting ammunition manufacturers, we have earned a strong reputation in global markets.



Poongsan utilizes its experience and technology in producing copper and copper alloy materials and ammunition to manufacture a variety of propellants and ammunition components as well as complete ammunition. To produce the semi-finished products and components required for ammunition manufacturing, we operate dedicated production lines for each item. We supply these products widely to both domestic and overseas markets. Our product range comprises ammunition materials such as cups, disks, and rotating bands, and ammunition components such as cartridge cases, projectiles, fuses, links, and tungsten penetrators.

2024 ESG Management & Strategy

2024 ESG Key Initiatives	13
2024 PSC Value Chain	14
2024 ESG Highlights	15
Double Materiality Assessment	16

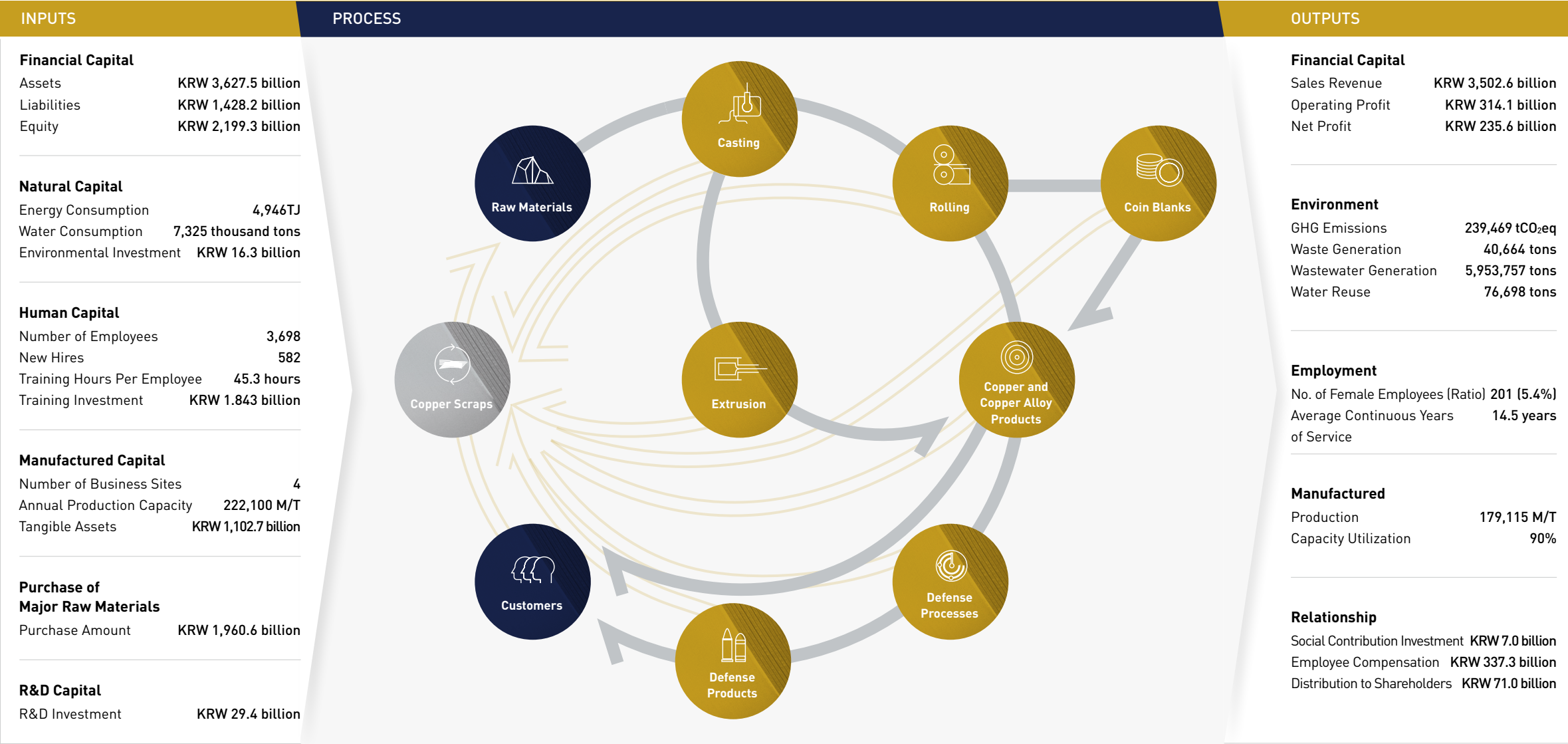


2024 ESG Key Initiatives

Establishing our own ESG management system under the POONGSAN WAY vision is a core value for our sustainable growth. To achieve this, we review and refine our key strategic tasks each year and continue to implement them.



2024 ESG Value Chain



2024 ESG Highlights

ENVIRONMENTAL

Advancing a Sustainable POONGSAN WAY
Through Responsible Environmental
Management



SOCIAL



Received the Excellence Award at the Safety Culture Innovation Awards Hosted by the Korea Enterprises Federation



The Ulsan Plant Won the Grand Prize at the Occupational Risk Assessment Presentation Competition.



Selected as an Outstanding Company in the 2024 Subcontract Price Indexation Program

Safety Reports and Proposals

Completed Improvements

1,080

Improvements in Progress

43

Improvements Identified for Action

64

ZERO Information Security Incidents for Three Consecutive Years

Category		Unit	2024	2023	2022
Number of personal data breaches	Reported externally	Cases	-	-	-
	Reported to regulatory bodies		-	-	-
	Total		-	-	-

Declaration of Labor-Management Cooperation

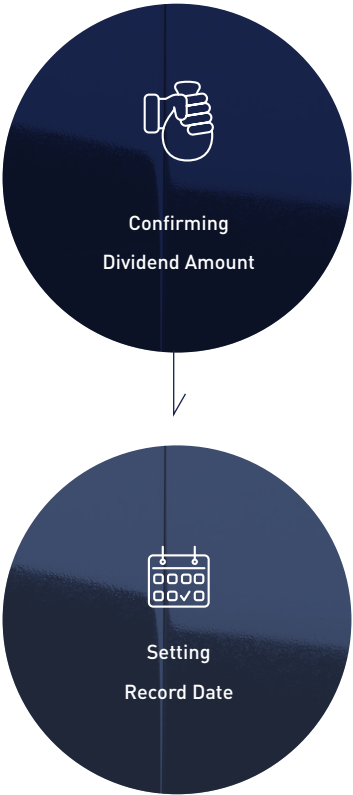
24th Anniversary

Conducting ESG Evaluations

16 Suppliers

GOVERNANCE

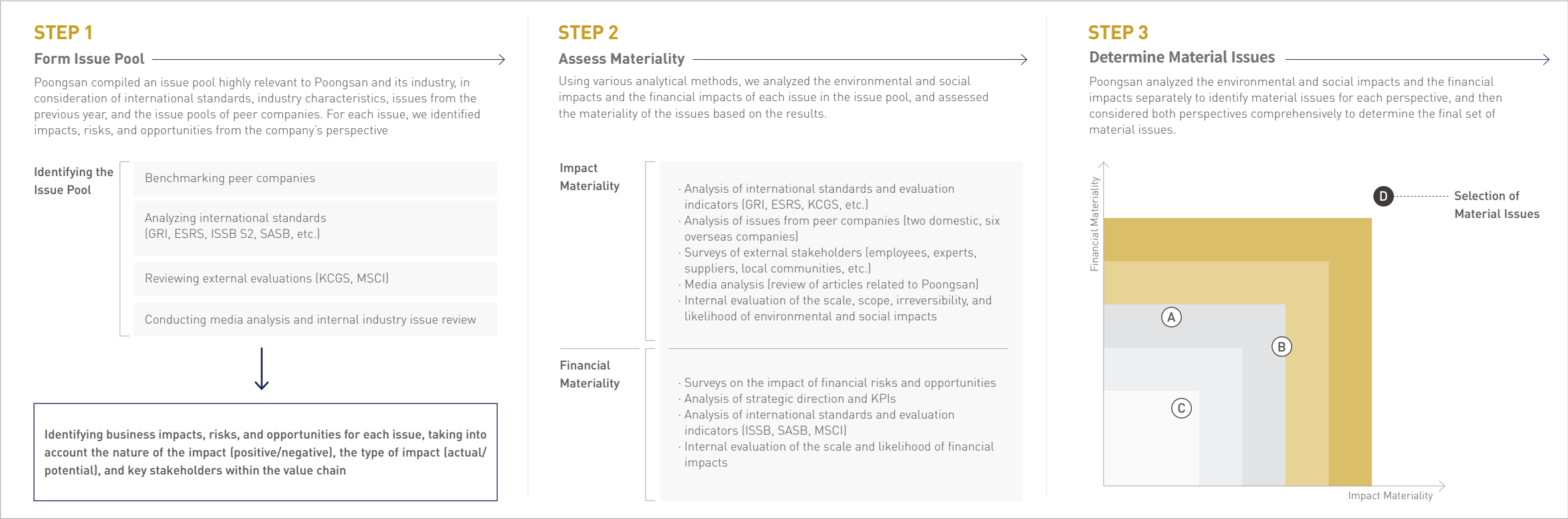
Improved Dividend Procedures by
Introducing a System That Sets the Record
Date After Dividend Amount Confirmation



Double Materiality Assessment

Poongsan identifies its material sustainability issues by applying the double materiality assessment methodology based on the European Sustainability Reporting Standards (ESRS). Our process is built on the materiality assessment framework of the GRI Standards 2021, incorporating the concept of double materiality outlined in the EU’s Corporate Sustainability Reporting Directive (CSRD). In the first half of 2024, we conducted an ESG criteria review, peer and media analyses, and developed an ESG IRO (Impact, Risk, Opportunity) list. Based on this list, which comprised 25 ESG issues, we carried out stakeholder surveys and assessments by internal and external ESG experts. Through this process, we analyzed both impact materiality, assessing the effects of our business activities on the environment and society, and financial materiality, which examines the extent to which external ESG-related factors could create risks or opportunities affecting our financial statements. Following approval by management and the board of directors, we finalized five material issues. We will manage the risks and opportunities inherent in these issues in a systematic manner and enhance communication with our stakeholders by transparently disclosing related management activities through our sustainability report.

Double Materiality Assessment Process



Double Materiality Assessment

Through the double materiality assessment, we established the impact and financial materiality rankings for the 25 issues in the issue pool and comprehensively considered these results to select the final five material issues. The selected material issues were submitted to the board of directors for deliberation and received approval. This year’s sustainability report aims to provide a comprehensive account of Poongsan’s efforts and performance for each of these material issues.

Impact Materiality Ranking

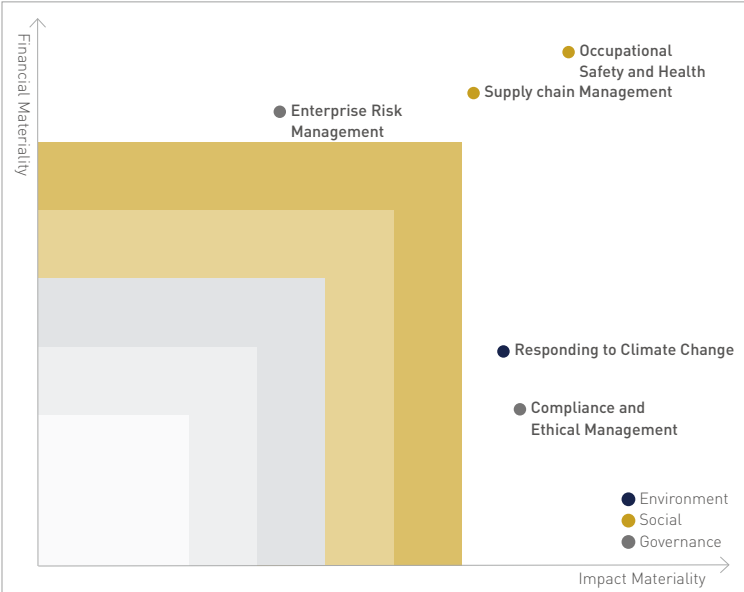
● High ◐ Mid ○ Low

Rank	Issue	Severity	Likelihood
1	Occupational Safety and Health	●	●
2	Compliance and Ethical Management	◐	●
3	Sustainable Innovation and Technology	◐	●
4	Responding to Climate Change	◐	●
5	Creating Value for Local Communities	◐	●

Financial Materiality Ranking

Rank	Issue	Severity	Likelihood
1	Occupational Safety and Health	●	●
2	Supply Chain Management	◐	●
3	Enterprise Risk Management	◐	●
4	Responding to Climate Change	◐	●
5	Creating Economic Value	◐	●

Final Material Issues



Category	Issue	Impact Materiality		Financial Materiality	
		Severity	Likelihood	Severity	Likelihood
Environment	Responding to Climate Change	◐	●	◐	●
Social	Occupational Safety and Health	●	●	●	●
	Supply chain Management	○	●	◐	●
Governance	Enterprise Risk Management	◐	○	◐	●
	Compliance and Ethical Management	◐	●	◐	◐

Details of the Double Materiality Assessment

Category	Issue	Rank		GRI	New	KPI	Reporting Pages	Key Reporting Activities
		Impact Materiality	Financial Materiality					
Environment	Responding to Climate Change	4	4	201, 305	-	ESG management response, greenhouse gas management, etc.	22-25	· Establishing mid- to long-term implementation plans for climate change response · Efforts to reduce greenhouse gas emissions and energy use
Social	Occupational Safety and Health	1	1	403	-	Establishing core safety rules, company-wide safety and health management, etc.	31-36	· Safety and health management activities · Safety training and drills · Safety risk management
	Supply Chain Management	8	2	414	-	Establishing an ESG-based procurement system, supplier management, etc.	37-39	· Supplier communication · Supplier risk management
Governance	Enterprise Risk Management	24	3	205	-	Improving business processes, project management/analysis, etc.	56-57	· Monitoring external economic risks · Risk management strategies
	Compliance and Ethical Management	2	13	205	-	Ethical management activities, monitoring of regulatory compliance	53-55	· Implementing ethical management · Compliance

• Although the 2024 double materiality assessment resulted in some changes to issue rankings, all issues selected in the previous year were retained in this year’s final set.



PSC ESG Performance

E ENVIRONMENTAL	19
E1 Environmental Management	19
E2 Climate Change Response	22
E3 Minimizing Environmental Impact	26
E4 Circular Economy	28
S SOCIAL	31
S1 Occupational Safety and Health	31
S2 Supply Chain Management	37
S3 Human Resources	40
S4 Community Engagement	44
S5 Information Security	45
S6 Quality Management	47
G GOVERNANCE AND ECONOMY	49
G1 Sound Corporate Governance	49
G2 Ethical Management	53
G3 Enterprise Risk Management	56
G4 Tax Management	58
G5 Sustainable Innovation and Technology	59
G6 Stakeholder Communication	61

E1

Environmental Management

UN SDGs

6

7

12

13

15

AppendixEnvironmental Performance

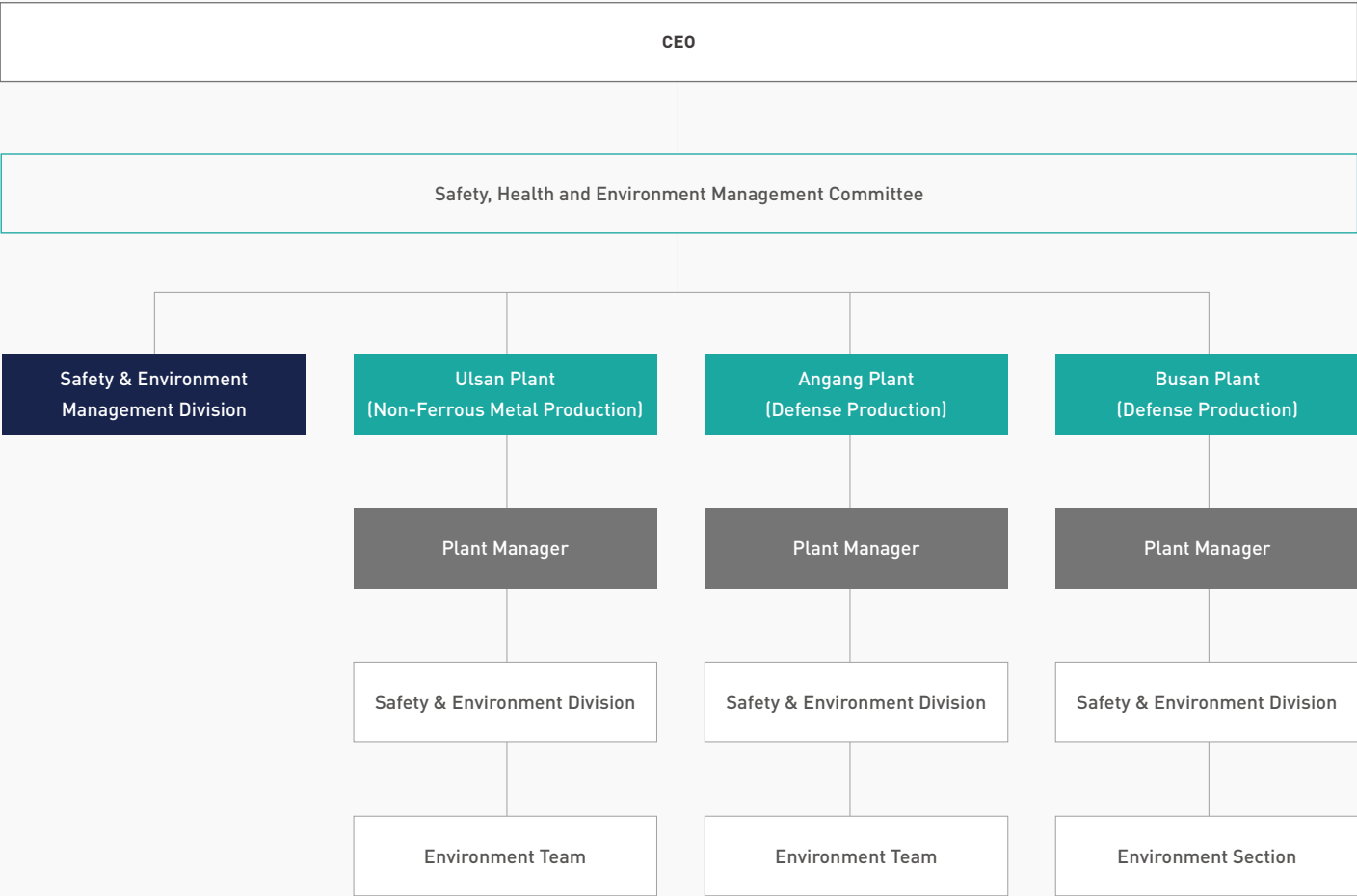
Environmental Management Framework

Environmental Management Framework

Poongsan has established and operated an environmental management system to pursue systematic environmental management and contribute to stakeholder satisfaction.

Under the direct supervision of the CEO, we have set up the Safety, Health, and Environmental Management Committee. The committee establishes company-wide environmental policies and targets, and analyzes and responds to environmental risks across the company. The Safety & Environment Management Division leads environmental management company-wide, working closely with each business site to play a central role in achieving our overall safety, health, and environmental objectives.

At each business site, the Safety & Environment Division is headed by the plant manager, monitors air and water pollutants discharged from the site through the Tele-Monitoring System (TMS), and measures and analyzes environmental pollutants. We also conduct both internal and external environmental analyses and assess the likelihood and severity of environmental risks. Based on these assessments, we identify potential risks to the site in advance, develop preventive measures against pollution, and carry out on-site inspections and management activities related to risk control.



E1 Environmental Management

Environmental Management Policy

Poongsan recognizes that the environment is closely linked to its business activities and continuous improvement efforts are essential. Accordingly, we clearly reflect in our environmental management policy our commitment to actively participating in environmental conservation activities, based on communication with local communities and stakeholders.

Poongsan's Safety, Health and Environment Management Policies

- 1 In all of the company's management activities, Safety, Health and the Environment are our top priorities.
- 2 We identify and remove any potential Safety, Health or Environmental hazards in advance to help prevent accidents, while we continue working to improve the environment.
- 3 Poongsan provides comprehensive training for employees, complies with relevant laws and regulations, and establishes and adheres to strict internal management standards.
- 4 Within Poongsan's Safety, Health and Environment management system, we set, implement and constantly evaluate specific goals and initiatives for continuous improvement.
- 5 We continually work to communicate, and optimize relationships, with all stakeholders – including customers, contractors, and local communities.

External Certifications

Poongsan continues to strengthen its environmental management and improve environmental performance by implementing an environmental management system certified to ISO 14001.

Under this system, each of our business sites regularly analyzes environmental risks by taking into account internal risk factors and the needs of external stakeholders. We assess the likelihood and severity of these risks, evaluate the effectiveness of the actions taken, and work continuously to identify and mitigate environmental risks.

Our Ulsan plant was recognized in 2006 by the Ministry of Environment as the first Green Company in the non-ferrous metals industry. This recognition reflected our efforts to reduce pollutants through the establishment of an environmental management framework, investment in pollution control facilities, and commitment to local environmental conservation. The plant has maintained this designation through subsequent re-certifications, based on its ongoing environmental improvement activities aligned with long-term development goals for eco-friendly operations. We will continue working to obtain Green Company certification for all our business sites.



Raising Environmental Management Awareness

Poongsan regularly provides environmental training to enhance awareness among employees and suppliers, and to achieve its environmental management goals.

Topic	Target Audience	Participants	Date
ESG and its relationship to carbon neutrality	Employees	397	2024-04-02 2024-04-08 2024-04-12 2024-04-19
Corporate response in the ESG era			
Latest regulations and ESG initiatives	Suppliers	36	2024-06-19
ESG concepts and 2024 ESG trends	Suppliers	16	2024-07-17

In addition, each business site offers a variety of environment-related training programs to embed environmental awareness among employees and suppliers.



E1 Environmental Management

Community Environmental Initiatives

Poongsan actively participates in local environmental improvement initiatives, with each business site taking part in a “One Company, One Stream” river restoration and cleanup campaign. In March and May 2024, employees from our Ulsan plant carried out environmental cleanup activities along Namchangcheon Stream in Onyang-eup. We will continue to take part in stream restoration initiatives led by each site to help improve the local environment and protect aquatic ecosystems.

Compliance with Environmental Laws and Regulations

Poongsan has established and systematically manages procedures for complying with environmental laws related to its business operations, such as the Chemical Substances Control Act, the Water Environment Conservation Act, and the Clean Air Conservation Act. To ensure adherence and prevent violations, we regularly monitor compliance. We also regularly review new and revised laws to ensure full compliance. As a result, there were no cases of legal violations in 2024.

Green Procurement

As part of our efforts to promote sustainable development, we have established Green Procurement Guidelines at our Ulsan plant. These guidelines encourage the active purchase of eco-friendly products that can replace existing construction, electrical, and equipment-related products, as well as raw and auxiliary materials used in manufacturing activities.

Relevant laws define eco-friendly products to include Environmental Label-certified goods, Excellent Recycled Products, Grade 1–2 energy efficiency goods, Energy Saving Label-certified goods, high-efficiency energy equipment, hazard- and waste-reducing goods, and goods certified with overseas eco-labels, as well as those recognized as eco-friendly by the relevant department head. We are also making gradual efforts to shift to green procurement for items that are currently difficult to replace.

In procurement, we consider eco-friendliness alongside quality and price as key evaluation criteria, and we actively communicate our green procurement policy to suppliers. Suppliers that identify and propose eco-friendly products are awarded extra points in evaluations and are also given training and consultation related to green procurement and environmental management activities.

In addition, we have established green procurement performance and the number of eco-friendly material registrations as key performance indicators to continuously promote green procurement activities.



E2

Climate Change Response

2050 Carbon Neutrality Declaration

The international community recognizes the severity of global warming caused by greenhouse gas emissions and is working to address the climate crisis. Efforts to limit the rise in the global average temperature have included the adoption of the United Nations Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement. In its 2018 Special Report, the Intergovernmental Panel on Climate Change (IPCC) stated that limiting the global temperature increase to within 1.5°C requires reducing global greenhouse gas emissions by at least 45% from 2010 levels by 2030, and that carbon neutrality be achieved by 2050.

In line with this, Korea has declared its vision for 2050 Carbon Neutrality to fulfill its responsibility as a member of the international community.

To join the global carbon neutrality effort, the Korean non-ferrous metals industry established the Non-Ferrous Metals Carbon Neutrality Committee, an industry-academia-research-government council, and announced the Carbon Neutrality Challenge Joint Declaration in March 2021. We have joined this initiative to help achieve carbon neutrality and foster greater cooperation across the industry.

We are currently in the early stages of preparation to achieve carbon neutrality by 2050, with a focus on establishing a system for managing product carbon emissions. In recognition of the need to develop a company-wide strategy based on a shared social consensus on carbon neutrality, we are preparing to establish a mid- to long-term strategic framework to identify related risks and respond to them effectively.



Non-ferrous metals industries’ commitment to carbon neutrality by 2050

The non-ferrous metals industry recognizes that the reduction of greenhouse gases in response to climate change is an urgent task for human coexistence and prosperity and declares the following to join the 2050 carbon neutrality.

1

The industry is working towards achieving carbon neutrality by 2050 through innovative technology development and production structure transformation.

In the near term, greenhouse gas emissions will be reduced by building a circular economy and optimizing processes through improved energy efficiency, the use of low-carbon raw materials, and increased metal scrap recycling.

In the mid- to long-term, the industry will develop and secure innovative technologies such as low-carbon non-ferrous metal production technology and carbon capture and conversion technology, with the goal of achieving carbon-neutral and eco-friendly smart smelters.

2

A “Nonferrous Metals Carbon Neutrality Committee” will be formed with representatives from industry, academia, and research to facilitate ongoing dialogue on shared issues related to the transition to an eco-friendly and future-oriented industrial structure and to strengthen mutual cooperation.

3

The industry is committed to enhancing its competitiveness in the future by leveraging the government’s support for R&D, establishing a platform for expanded use of recyclable resources, and restructuring production processes. To this end, the industry will engage proactively with the government to explore and implement innovative policy projects, and communicate actively to establish a carbon-neutral, innovative new industrial model to reinforce global competitiveness and generate new opportunities.

4.

The industry will continue to enhance global collaboration with organizations such as the International Copper Association (ICA), International Zinc Association (IZA) and other non-ferrous metals industries worldwide, in order to facilitate the transition to a low-carbon society.

March 10, 2021

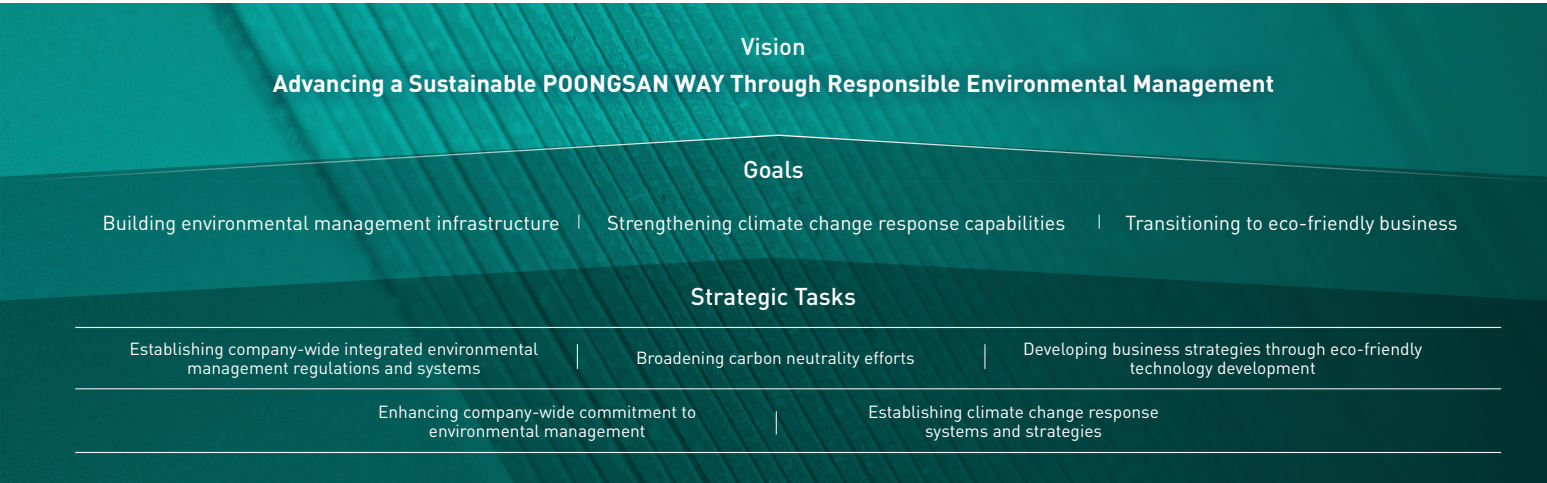
E2 Climate Change Response

Medium- to Long-term Implementation Plan for Climate Change Response

Poongsan has specified its environmental management strategy guided by the vision of advancing a sustainable POONGSAN WAY through responsible environmental management in order to actively respond to climate change.

To this end, we have set three core objectives: ❶Establishing environmental management infrastructure, ❷strengthening climate change response capabilities, and ❸transitioning to an eco-friendly business. Built on these core objectives, we have developed phased action tasks to prepare a medium- to long-term implementation plan.

This medium- to long-term plan will serve as the foundation for effectively responding to climate change. It sets out the direction and implementation measures of our environmental management strategy, guiding us toward a sustainable future.

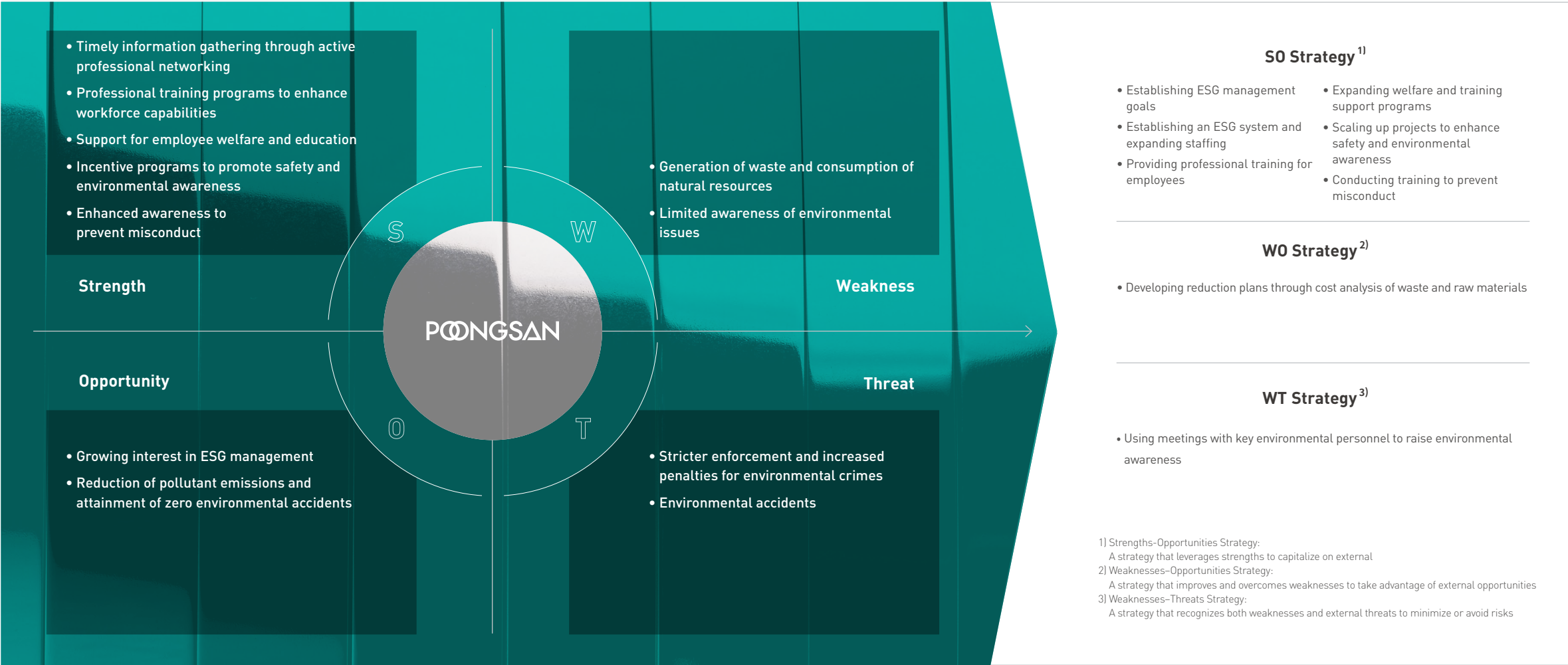


Category	Task	Short Term	Medium Term	Long Term
Stabilization Stage Establishing environmental management infrastructure	Establishing company-wide environmental management policies and guidelines			
	Reviewing and improving existing internal environmental management regulations			
	Establishing and disclosing environmental impact management strategies			
	Implementing environmental and energy information systems			
	Aligning performance evaluation and incentives with environmental results			
Capacity Building Stage Strengthening climate change response capabilities	Formulating carbon neutrality strategies			
	Establishing an organizational structure for climate change response			
	Managing product carbon footprint			
	Promoting carbon neutrality initiatives			
	Enhancing climate-related disclosures			
	Formulating climate change response strategies			
Expansion Stage Strengthening climate change response capabilities	Formulating resource circulation and circular economy strategies			
	Developing eco-friendly products and transitioning business operations			
	Carrying out external cooperation initiatives			

E2 Climate Change Response

Environmental Risk Analysis

Poongsan recognizes the importance of addressing climate change and has conducted a SWOT analysis to comprehensively examine internal and external environmental factors. Based on the results of this analysis, we are formulating and implementing strategies to respond to environmental issues in a systematic and proactive manner.



E2 Climate Change Response

Climate Change Response Activities

Greenhouse gas and energy reduction efforts

Recognizing that reducing greenhouse gas (GHG) emissions is essential in the medium to long term to achieve carbon neutrality, we have carried out a range of activities in 2024 at our head office and each business site. In addition to improving facilities and operating methods, we have made efforts to reduce GHG emissions through monitoring to proactively prevent abnormal emissions. Key initiatives are as follows.



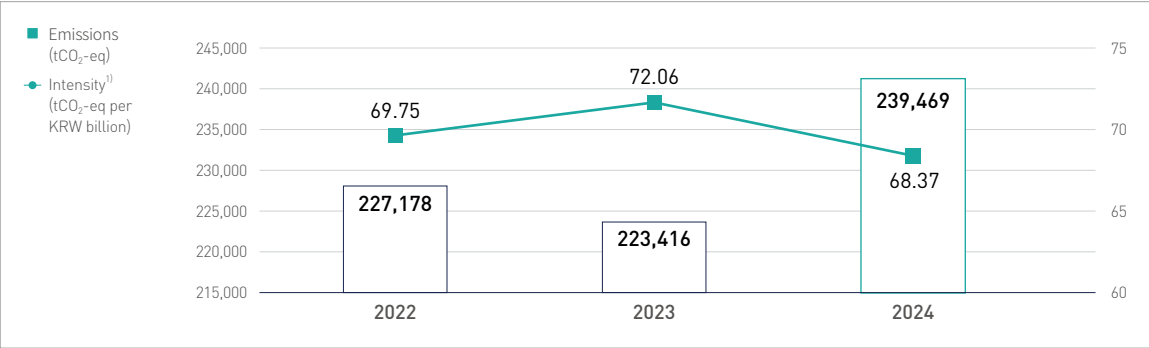
As a result of these efforts, we reduced both our GHG emissions intensity and energy consumption intensity by 5% year-on-year, contributing to our climate change response.

Site	Key Activity	Details
Head Office	Environmental and Climate Change Consulting	Establishing an environmental strategy framework and responding to climate-related disclosures
Ulsan Plant	Installing Solar Power Generation Facilities	Participating in the Korea Environment Corporation's carbon neutrality facility support program
	Environmental Improvement Consulting	Identifying potential gaps in environmental compliance
	Busan-Ulsan-Gyeongnam Green Company Working-level Committee Meeting	Briefing on environmental management results
Angang Plant	Unannounced Environmental Inspections by External Agencies	No deficiencies found in inspections conducted by four organizations, including the Gyeongsangbuk-do Provincial Government
	Environmental Permits from External Agencies	Four permits for air, three for water quality, and two for waste
	Lighting Replacement [the Korea Environment Corporation Program]	Reducing energy consumption by 40%
	Inspections of Air Pollution Control and Hazardous Materials Handling Facilities	Implementing corrective measures and completing training
	Presenting Best Practices in Hazardous Chemical Management	Best practice training organized by the Daegu Regional Environmental Office
	Water Quality TMS Accuracy Test	Passing the test conducted by the Korea Testing Laboratory
	On-site Exchange Meetings with Departments Responsible for Operating Environmental Facilities	Sharing environmental information and conducting inspections
	Application for Allocation of Total Emissions Quotas for Air Pollutants	Five-year allocation request for air pollutant emissions quotas
	Comprehensive Inspection of Environmental Facilities	Conducting an inspection of pollutant-generating facilities and other environmental facilities
	Replacing Hazardous Chemicals with Non-hazardous Alternatives	Reducing pollutant levels in products
Busan Plant	Water Quality TMS Accuracy Test	Passing the test conducted by the Korea Testing Laboratory
	Conducting Internal Inspections of Environmental Facilities	Completing 13 corrective actions

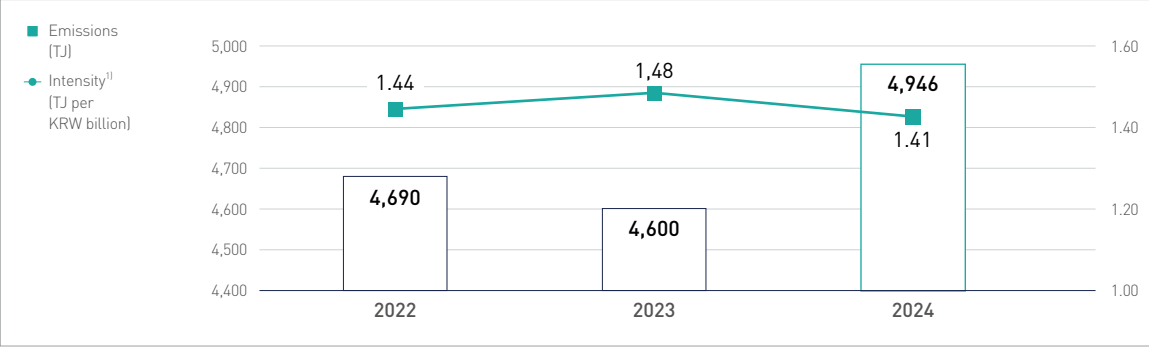
In addition, we plan to establish company-wide energy regulations, clarify the roles of relevant departments, and implement energy management and reduction activities in a systematic manner. We will also set achievable targets to drive substantial energy savings.

As part of these efforts, we will incorporate accountability for delivering on climate change response targets into employee performance evaluations and pursue various GHG reduction initiatives, including introducing renewable energy, replacing outdated equipment, and participating in carbon neutrality support programs. Meanwhile, total energy consumption and GHG emissions rose in 2024 as expanded manufacturing activities drove record-high production. Both intensities improved year-on-year.

Greenhouse Gas Emissions



Energy Consumption



1) Intensity is calculated based on sales revenue (unit : KRW billion)

E3

Minimizing Environmental Impact

UN SDGs

61167121315

AppendixEnvironmental Performance

Reducing Environmental Pollutants

Air Pollutant Management

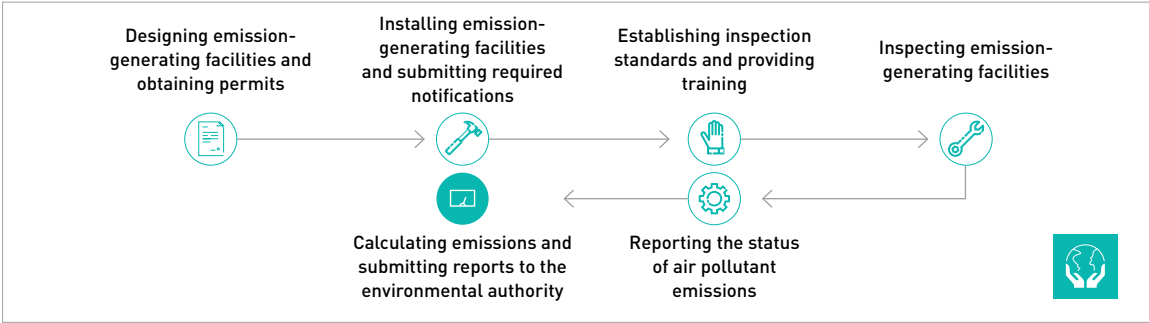
We work to minimize air pollutant emissions by optimizing air pollution control facilities and monitoring emissions in response to increasingly stringent regulations such as the Clean Air Conservation Act.

To reduce emissions of nitrogen oxides (NOx), sulfur oxides (SOx), and dust, we have installed and operate various air pollutant reduction facilities, including inertial dust collectors, wet scrubbers, bag filters, activated carbon adsorption towers, and combustion control facilities.

We also operate stack Tele-Monitoring Systems (TMS) at major emission points in each business site to monitor emissions in real time and prevent abnormal discharges. In addition, we perform self-monitoring on an annual, quarterly, and monthly basis to track air pollutant emissions.

In 2024, our Angang plant installed an additional wet dust collector to reduce air pollutants generated during production processes. This facility captures smoke and dust from existing dry processes, thereby reducing air pollutant emissions in the area surrounding the plant.

Air Pollutant Management Process



Chemical Management

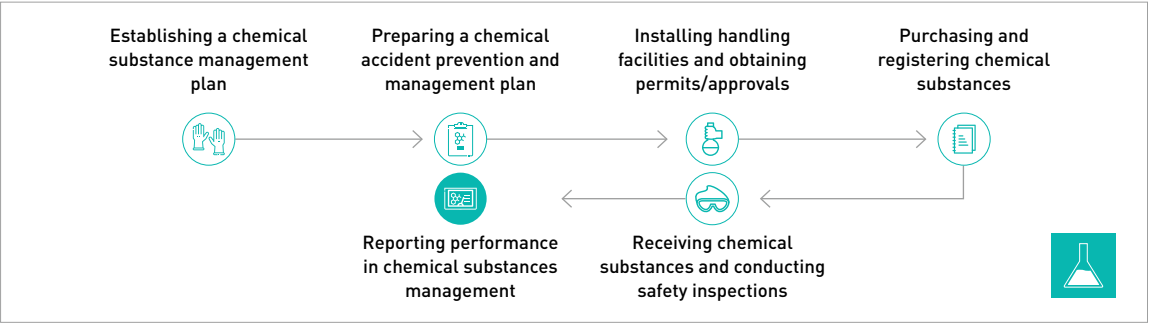
As our facilities are designated as facilities for handling hazardous chemicals under the 「Chemical Substances Control Act」, we focus on proactive prevention activities to ensure a safe working environment.

Chemical substances used in our main products are strictly managed in accordance with Safety Data Sheets (SDS). When introducing new chemical substances, we review their suitability through a comprehensive assessment that includes ① SDS-based evaluation, ② potential environmental impacts, and ③ wastewater treatment feasibility. Chemical substances received and shipped are systematically managed through a chemical inventory register.

Through the CHARM (Chemical Hazard Assessment and Risk Management) system, we analyze and assess the hazards of each chemical substance, and based on the results, establish and implement measures to reduce or eliminate risks. For facilities handling hazardous chemicals, we ① conduct weekly in-house inspections, ② carry out annual regular inspections to ensure the safety of storage and handling facilities, and ③ monitor in real time for any chemical leaks by installing gas detectors, CCTV, and leak detection sensors.

To strengthen our preparedness for chemical accidents, we conduct regular annual drills based on chemical accident scenarios. We have also established and operate an emergency response system to minimize damage in the event of an accident.

Chemicals Management Process

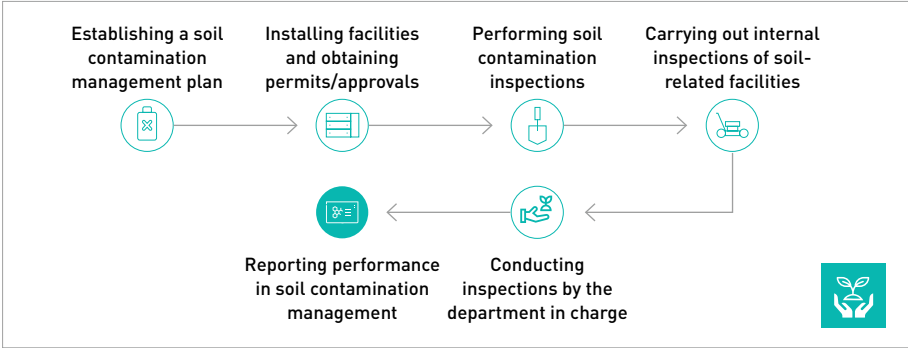


E3 Minimizing Environmental Impact

Soil Contamination Management

Poongsan monitors the impact of oil and other substances on soil to minimize soil contamination. To this end, we conduct soil contamination inspections at each business site on a biennial basis.

Soil Contamination Management Process



Water Resources Management

Poongsan regards water as a shared resource and manages it systematically to ensure efficient use and minimize pollution from intake to discharge. At Poongsan, water is mainly used for cooling in the rolled product manufacturing process.

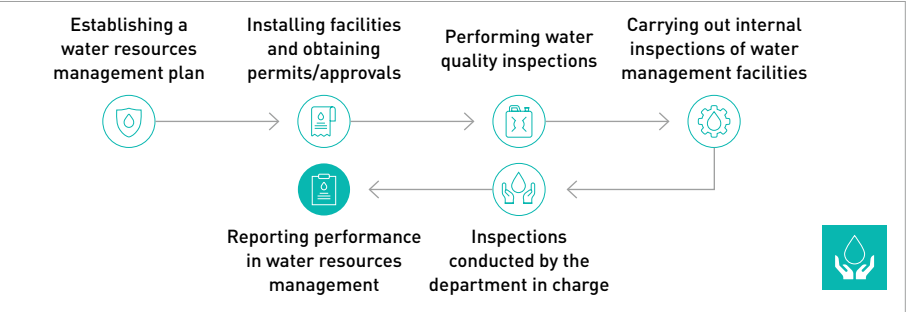
Wastewater generated at each business site is collected through on-site wastewater treatment facilities. Following physical-chemical and biological treatment, it is discharged only upon meeting statutory standards.

1 The Angang and Busan Plants discharge into rivers. 2 The Ulsan Plant discharges to a municipal wastewater treatment plant. Given the nature of direct discharge, the Angang and Busan plants installed and currently operate a Tele-Monitoring System (TMS) for real-time monitoring of water pollutants.

All business sites also monitor specific hazardous water pollutants through regular in-house measurements and strictly manage the quality of effluent. We strictly comply with the discharge standards set by the Water Environment Conservation Act. As part of our efforts to take the lead in reducing water pollution, certain business sites set in-house standards at levels more stringent than statutory limits.

In particular, at the Ulsan Plant, cooling water used in the rolling and extrusion processes for copper and copper alloy products is recovered to a central cooling tower. It is then filtered and cooled through an industrial water reuse facility before being recycled, which helps conserve water resources.

Water Resources Management Process



E4

Circular Economy

UN SDGs

6 10% 7 100% 12 100% 13 100% 15 100%

Appendix Environmental Performance >

Waste Management

Poongsan recognizes that improper or non-compliant waste disposal may result in legal sanctions and environmental pollution. In light of this, we strictly manage the entire process from waste generation to final disposal at all business sites in accordance with our Waste Management Guidelines. As part of this effort, we systematically manage the treatment records of each waste category through the Allbaro waste disposal tracking system.

As part of this approach, recycling is given top priority in handling all waste generated at our business site. When selecting suppliers, we prioritize those with the capability to recycle, thereby contributing to waste reduction. Waste is classified by type, and the handling method, discharge procedures, and designated storage locations are clearly defined to prevent any mixing of waste prior to disposal.

When newly generated waste requires verification of hazardous substances, samples are collected and analyzed to ensure proper management and disposal.

Each business site also implements specific measures to strengthen waste management. The Angang Plant operates a task force team to monitor and reduce waste generation, while the Busan Plant emphasizes waste segregation and is committed to systematic waste management.

Resource recycling

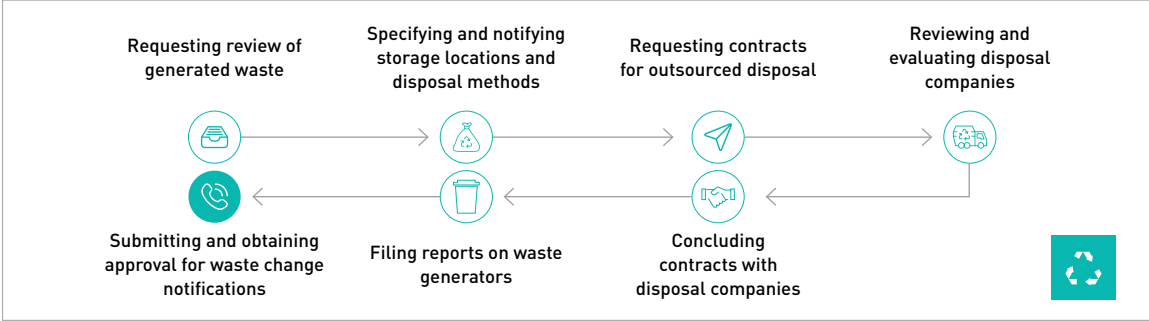
The Copper and Copper Alloy Division of Poongsan produces nonferrous metal products using electrolytic copper as the primary raw material and focuses on efficient resource management.

A key advantage of copper and copper alloy products is that they are recyclable as scrap. Accordingly, we strive to increase the proportion of scrap used in the casting process. Copper scrap generated during rolling and extrusion processes is fully recovered, properly stored, and managed. In the casting process, this scrap is recycled with electrolytic copper, thereby reducing electrolytic copper consumption.

Compared with electrolytic copper refined from copper ore, copper scrap consumes less energy and generates fewer carbon emissions, which supports the circular economy. To expand a stable scrap supply chain and continuously improve recycling rates, we have established a system for recovering copper scrap from customers through contracts.

Copper-containing dross (slag) is inevitably generated in the casting process of the Copper and Copper Alloy Division. Dross is a byproduct containing impurities that is difficult to recycle within the process and is classified as waste. To minimize waste generation, we work with suppliers to carry out secondary processing to extract copper content. The extracted copper is either recycled back into the casting process or sold to external vendors specializing in resource recovery.

Waste Management Process



Copper Scrap for Recycling

E4 Circular Economy

Eco-friendly Products

Eco-friendly Product Development Plan

Poongsan is engaged in ongoing product development to provide its customers with eco-friendly products, and manages these initiatives in accordance with mid-term plans for each business division.

Rolling and Extrusion Business R&D Roadmap



E4 Circular Economy

Lead-free Brass

In Europe, the RoHS and ELV directives, which regulate the use of certain hazardous substances in electrical and electronic equipment and automobiles, were enacted in 2006. The 2016 amendment limited the allowable lead content in materials to 0.1%. However, a special exemption, granted due to machinability issues with copper alloys, permitted lead content of up to 4% until July 2021. As regulations on lead broaden in scope worldwide to protect human health, we have developed eco-friendly lead-free brass.

At our Ulsan plant, we have developed Biobrass1 and Biobrass2, lead-free brass alloys that contain no harmful Pb or Bi yet offer excellent machinability and formability. These products are now in mass production and have obtained KC certification for drinking water safety.

Domestic and International Patents for Lead-free Brass

Domestic

Category	Description
2005-0018147	Free-machining brass alloy with excellent machinability and formability
2007-0009294	Free-machining copper alloy
2011-0099741	Biobrass1
2011-0099742	Lead-free free-machining copper alloy and its manufacturing method
2018-0165425	Biobrass2
2021-0062604	Biobrass2 casting ingot

International

Description	Countries of Patent Registration
Biobrass1 (11 countries)	Europe, Germany, Vietnam, Malaysia, United States, Canada, Japan, China, Thailand, Indonesia, Australia
Biobrass2 (9 countries)	China, Taiwan, Vietnam, Europe, Thailand, Indonesia, Malaysia, United States, Japan



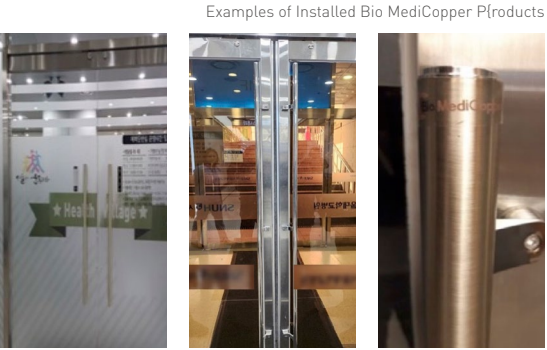
Bio MediCopper

Since 2015, we have been developing Bio MediCopper products that apply the antimicrobial and antiviral properties of copper alloys in the architectural, household, and medical sectors.

Bio MediCopper is currently used in products such as door handles and copper alloy tapes, which were installed in 2024 on a trial basis at Incheon International Airport, on bus handrails, and in subway systems. In the short term, we aim to commercialize Bio MediCopper for hygiene and household use, as well as for interior and exterior component applications. In the mid term, the goal is to expand commercialization into the medical and public sectors.

Bio MediCopper Patent List

Registration No.	Description
10-1796191-0000	Copper alloy material with excellent antibacterial properties, tarnish resistance, and formability, and method of manufacturing the same
10-2107585-0000	Copper alloy material with excellent wear resistance, and method of manufacturing the same
10-2265115-0000	Cu-Zn-based alloy with excellent corrosion resistance and tarnish resistance, and method of manufacturing the same
10-2403909-0000	Method of manufacturing copper alloy material with excellent formability and machinability, and copper alloy material manufactured thereby
ZL202211312594	Method of manufacturing copper alloy material with excellent formability and machinability, and copper alloy material manufactured thereby (China)
In progress	Method of manufacturing copper alloy material with excellent formability and machinability, and copper alloy material manufactured thereby (India)
10-2630489-0000	Copper alloy tape with improved adhesion, formability, and tarnish resistance, and method of manufacturing the same
40-1844261-0000	Bio MediCopper trademark registration



Development of sustainable small-caliber ammunition

We have developed small-caliber ammunition that eliminates harmful heavy metals such as lead and barium contained in conventional small-caliber rounds. Commercialization of this product is now being expanded. Technological innovation has allowed us to remove these hazardous substances while maintaining the same performance as conventional rounds, thereby minimizing environmental pollution during military training.

S1 Occupational Safety and Health

UN SDGs

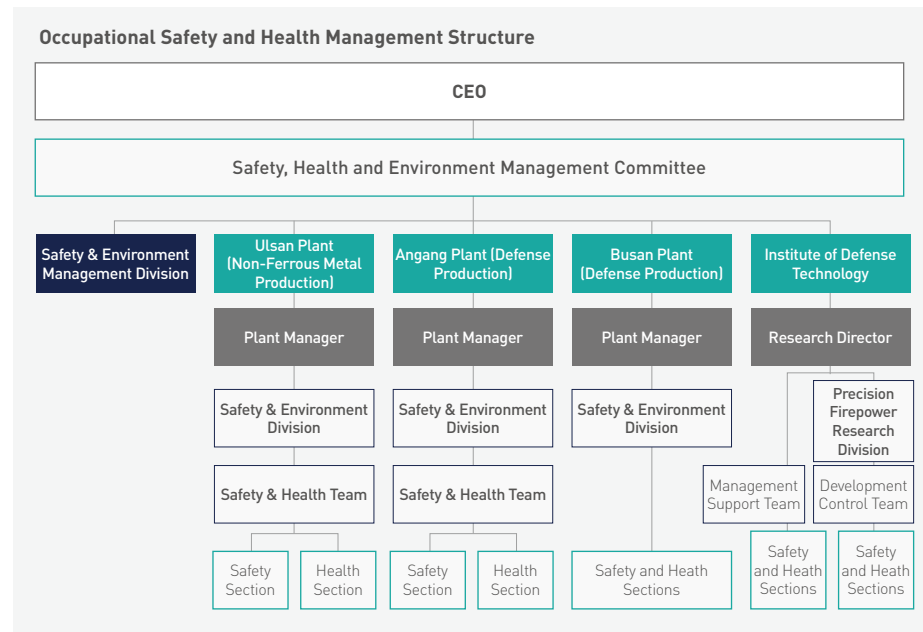


Appendix Environmental Performance >

Occupational Safety and Health Management Framework

Organizational Structure

The Safety & Environment Management Division operates directly under the CEO as the control tower for occupational safety and health, overseeing an integrated company-wide safety management system. To strengthen the independence of safety operations, we have elevated the Safety & Environment Team at each site to a division-level organization, reinforced its structure and staffing, and redefined its roles and responsibilities. In addition, we operate the Safety, Health & Environment Management Committee to facilitate company-wide coordination and decision-making on matters related to occupational safety, health, and the environment. The committee meets quarterly to review company-wide safety, health, and environment performance and key issues, and deliberates and decides on policies, objectives, and safety and health plans as necessary.



Safety and Health Mission/Policy

At Poongsan, we recognize safety, health, and environmental management as core elements of sustainable management. In line with our vision of becoming a global leader in safety culture and our safety objectives, we have established a Safety, Health and Environment (SHE) management policy and are actively implementing it.

| [Safety, Health and Environment \(SHE\) Management Policy](#) → |

Occupational Safety and Health Management system

Poongsan is committed to creating a healthy and safe work environment for its employees and suppliers. We carry out activities in a structured way to prevent safety and health risks at our business sites.

Since 2020, our plants in Busan, Ulsan, and Angang have obtained ISO 45001 certification, the international standard for occupational safety and health management systems established by the International Organization for Standardization (ISO) and the International Labour Organization (ILO). In particular, the Angang plant has also obtained KOSHA-MS certification, thereby ensuring compliance with more stringent safety and health standards.

We strive to prevent industrial accidents and promote the health of our workforce by engaging all employees and stakeholders in safety and health activities.



Occupational Safety and Health Mission

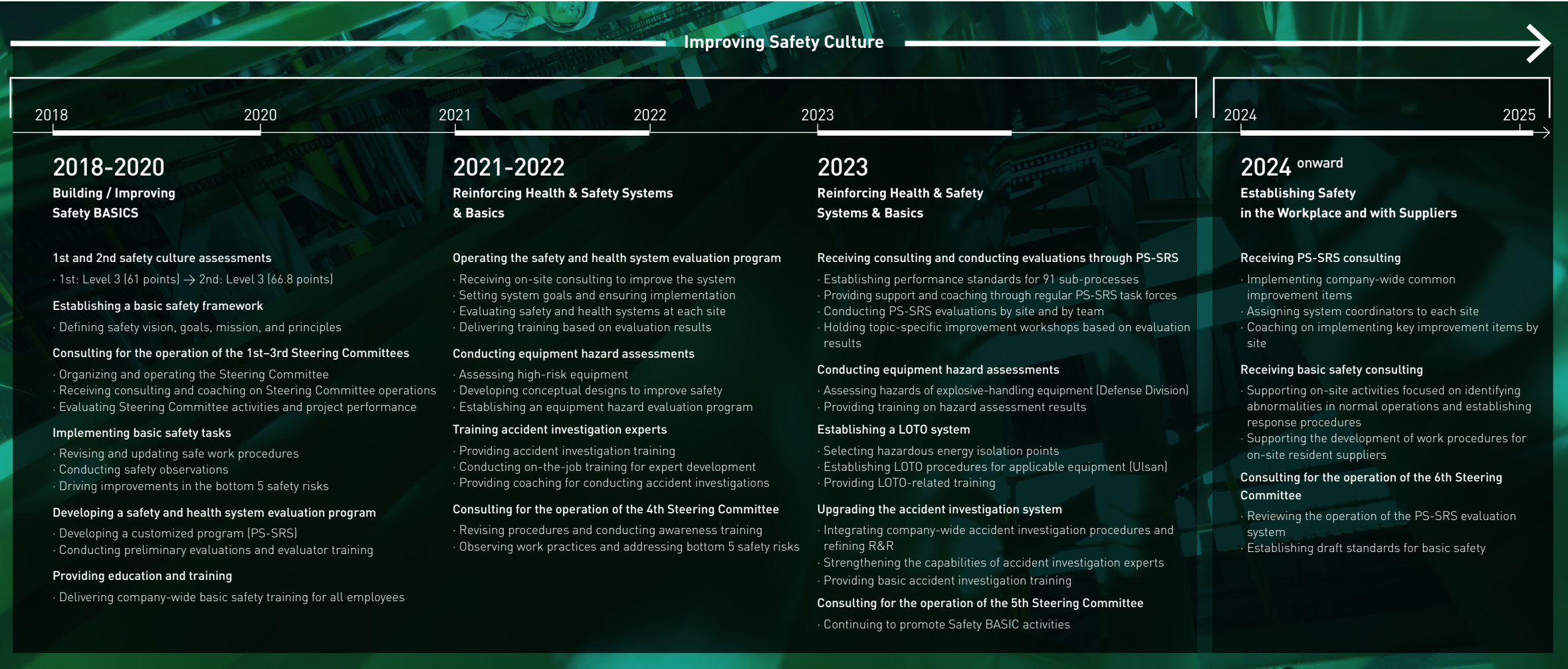


S1 Occupational Safety and Health

Improving Safety Culture

Poongsan is developing a company-wide safety management system rooted in safety culture to advance from a management-focused approach to a more progressive one. Through this, we aim to improve our supplier management system and continuously enhance the safety of our facilities.

Safety Culture Development Roadmap



S1

Occupational Safety and Health

Occupational Safety and Health Management Activities

Work Environment Management

At each site, we measure and assess exposure levels to hazardous factors and improve facilities and equipment to prevent occupational diseases and create a safe and healthy work environment. We also operate a variety of health facilities and health management systems at each site to monitor and manage employee health.

Employee Health Promotion Programs

To prevent work-related illnesses, we operate various health promotion programs aimed at improving the health and well-being of our employees.

Head Office	Walk-on Challenge (donating points earned from walking)	
	Employee mental health support program	
	Smoking cessation program	
Angang Plant	Health consultation and education for employees with abnormal medical findings	Employee mental health support program
	Cardiovascular disease risk assessment	Reducing alcohol consumption campaign / Smoking cessation clinic
Ulsan Plant	Home training sessions / InBody ranking event	Employee mental health support program
	Walk-on Challenge (donating points earned from walking)	Health education, information, and promotion activities
	Balance clinic	Mobile health management / Smoking cessation clinic
Busan Plant	Smoking cessation program	Employee mental health support program
	InBody ranking event/ Walk-on Challenge	Health education, information, and promotion activities
Institute of Defense Technology	Health consultation and education for employees with abnormal medical findings	
	Employee mental health support program	

KRW10,830,000

Walk-on Challenge Total Donation (2024)



110uses

Employee Mental Health Support Program (2024)



Prevention of Occupational and Infectious Diseases

Poongsan identifies harmful factors that could affect employees and either eliminate or replace them, and implements engineering and technical measures to prevent occupational diseases. In regular health checkups, we identify employees with potential health concerns. These employees are placed under observation for ongoing monitoring and health management.

Infectious Disease Prevention

Establishing and Operating Infectious Disease Prevention Measures	Developing guidelines to prevent the spread of infectious diseases
	Managing high-risk groups (risk-based management)
	Implementing and operating a remote work system
Developing Business Continuity Plans	Preparing work process scenarios for each department
	Planning work arrangements according to job functions
Implementing Disinfection Across all Sites	Preventing contact transmission (e.g., antimicrobial copper products)
	Conducting disinfection and providing sanitation supplies
Promoting Personal Hygiene	Distributing personal protective items (e.g., masks)
	Sharing information and guidance (e.g., announcements, text messages)
Preventing the Introduction and Spread of Infectious Diseases	Preventing the introduction of infectious diseases (e.g., visitor access control)
	Preventing the spread of infectious diseases (e.g., installation of partitions)

Occupational Disease Prevention

Respiratory Protection Program	Developing a comprehensive plan to prevent and manage health problems such as respiratory diseases caused by dust generated in work areas
Confined Space Entry Program	Establishing plans to prevent accidents such as suffocation when working in confined spaces
Hearing Conservation Program	Developing a comprehensive plan to prevent and manage noise-induced hearing loss caused by occupational noise
Musculoskeletal Disorder Prevention and Management Program	Establishing fundamental preventive measures by addressing musculoskeletal disorders and eliminating hazardous risk factors at work sites.
Job Stress Prevention Program	Managing work-related stressors, ensuring early detection of related health problems, and providing prompt follow-up care and recovery support when such problems occur.
Employee Assistance Program (EAP)	Providing professional counseling and coaching to address various challenges and concerns that employees may experience in daily life
Heat-related Illness Program	Establishing and operating standards to prevent heat-related illnesses such as heatstroke
	Providing drinking water, salt, and shaded areas, and adjusting rest periods during heat waves

S1 Occupational Safety and Health

Safety Education and Training

Poongsan provides ongoing safety education for all employees to raise safety awareness and ensure compliance with safety rules.

Site	Number of Courses	Number of Participants	Completion Rate
Head office	2	637	100%
Ulsan	19	21,130	100%
Angang	20	23,451	100%
Busan	11	5,489	100%
Institute of Defense Technology	11	1,853	100%



Emergency Response Drills

Emergency Response Drills

Poongsan maintains emergency scenarios and corresponding response manuals for each type of emergency to ensure prompt reporting, effective communication, and damage minimization in the event of, or imminent risk of, a serious accident. Each department conducts quarterly emergency response drills.

Safety Activity Award Program

Poongsan operates various safety and environment award programs, such as no-accident campaign awards, excellence awards for occupational safety and health evaluations, and awards for identifying new hazards. These initiatives encourage employees to take an active role in safety and environmental efforts and aim to build a healthy safety culture through joint participation of labor and management.

2024 Emergency Response Drills

Site	Number of Drills
Ulsan	21
Angang	33
Busan	21
Institute of Defense Technology	12

2024 Safety Activity Award Results

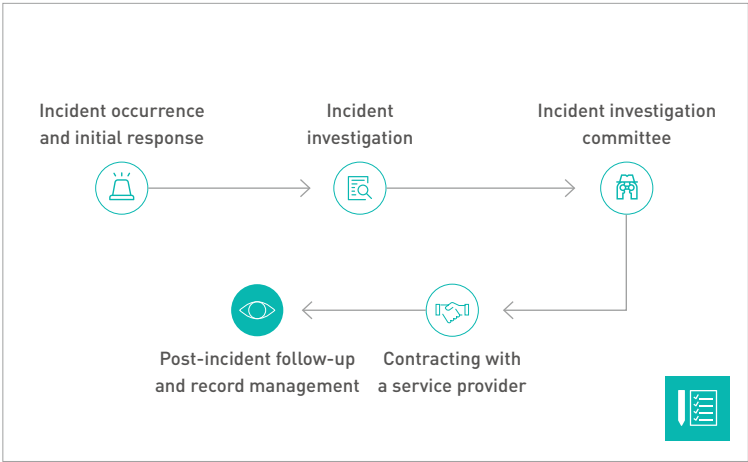
Site	Number of Awardees	Amount (KRW 10,000)
Ulsan	3,881	10,109
Angang	1,087	4,911
Busan	1,868	3,527
Institute of Defense Technology	331	1,058

Risk Management

Safety Incident Management

In the event of a safety incident, we report the incident to the dedicated safety unit at the head office immediately or within 24 hours, depending on its severity, and initiate the chain of command to prevent further damage. Investigations are completed within 72 hours to ensure a swift response. We conduct thorough root cause analyses for all incidents and follow a reporting system aligned with the Industrial Accident Statistics Processing Regulation to prevent recurrence and similar incidents. In addition, we closely track the injured employee’s treatment status and recovery period until their return to work.

Incident Management Process



S1 Occupational Safety and Health

Hazard Reporting System

The Ulsan Plant have introduced a QR hazard reporting system, which allows employees, external contractors, and visitors to report hazardous work and propose improvements via QR banners installed on site.

2024 Hazard Reports and Safety Suggestions

● Improvements Completed

● Improvements in Progress

● Improvements Under Review

1,080

43

64

Risk assessment procedure



Implementation Status of Risk Assessments

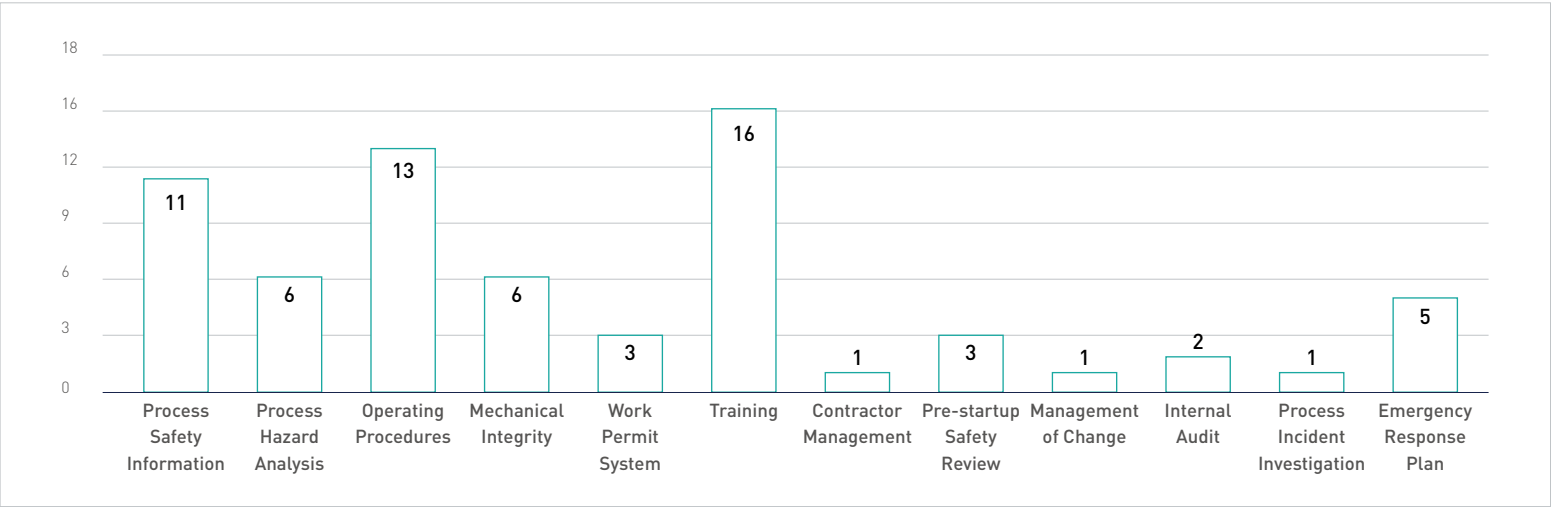
Site	Improvements Identified	Completed	Planned
Ulsan	423	130	293
Angang	735	658	77
Busan	131	119	12
Institute of Defense Technology	24	24	0

Workplace Safety and Health Inspections

To comprehensively assess the safety management status of our sites, including those of our suppliers, we regularly conduct joint safety and health inspections and site walkthroughs with the general safety manager and executives from our suppliers. These inspections help identify potential hazards, while cross-site reviews promote collaboration and generate synergies that enhance their overall effectiveness.

Annual internal audits to assess PSM implementation levels are conducted at the Ulsan and Angang sites, both subject to Process Safety Management (PSM). These audits are carried out by teams composed primarily of PSM experts and managers from the relevant departments. For any hazards identified, improvement measures are developed, and the results are closely monitored.

2024 PSM Improvements by Element (No. of Cases)



Safety and Health Inspections

Ongoing Assessments	Ad-hoc Assessments	Site Walkthroughs
Near-miss incidents	Maintenance work	Regular site walkthroughs
Safety improvement suggestions	management of change	Daily site walkthroughs
Safety observations		
Identification of unsafe or improper conditions		

2024 PSM Internal Audit

Audit Scope	9 Teams in Total		
Audit items 12 elements	Process safety information	Process hazard analysis	Operating procedures
	Mechanical integrity	Work permit system	Training
	Contractor management	Pre-startup safety review	Management of change
	Internal audit	Process incident investigation	Emergency response plan
Internal audit result			Grade S
Corrective actions			68 cases

S1 Occupational Safety and Health

Supplier Safety and Health Management

Poongsan actively promotes the prevention of industrial accidents and fosters a strong safety culture by working closely with suppliers when carrying out contracted projects. To facilitate regular discussions on safety and health matters between us and our suppliers, we hold a monthly Safety and Health Council Meeting. Through this platform, we share safety-related information, identify potential hazards, raise awareness of safety, and strengthen on-site safety management systems.

Building on a foundation of win-win cooperation with our suppliers, we continue to enhance workplace safety and health standards, thereby contributing to the prevention of serious accidents and stronger ESG performance.

Strengthening Safety Management Across All Stages from Supplier Selection to Execution of Work and Evaluation

	Supplier Selection Stage	Defining the scope of contracted work · Clarifying the scope of the contractor's obligations	Operating subcontractor qualification criteria · Applying two sets of evaluation criteria (50 or more employees / fewer than 50 employees) · Operating the P-SRM system · Applying standardized evaluation forms	
	Contract Stage	Standardizing subcontractor contracts · Production processes (on-site subcontractors) · Outsourced construction work · Outsourced processing · Supplying equipment and materials	Applying safety and health management cost standards for subcontractors · Applying a minimum of 0.5% of the contract amount for on-site subcontractors · Applying a minimum of 1% of the contract amount for outsourced processing subcontractors	Establishing and applying safety management standards for equipment/facility lease contracts · Ensuring the lessor's compliance with safety and health obligations
	Pre-work Stage	Reviewing and approving safety management plans · Standardizing the process company-wide for outsourced subcontractors · Expanding company-wide application for on-site subcontractors	Operating standardized work permit criteria · Standardizing across all sites	
	Operation Stage	Operating standardized subcontractor safety management criteria · Standardizing across all sites	Fulfilling legal requirements for including industrial safety and health management costs in construction projects · Applying calculation standards by type and scale of construction work · Applying a flat 3.15% rate for building, civil engineering, and special construction projects valued between KRW 10 million and KRW 500 million · Making lump-sum payments for projects under KRW 40 million · Requiring documentation and calculation for projects over KRW 40 million	Providing industrial accident prevention guidance for construction projects · Targeting projects valued between KRW 100 million and KRW 12 billion with a duration of more than one month · Providing accident prevention guidance for applicable construction projects
	Evaluation Stage	Reviewing subcontractor contracts and evaluation status · Standardizing evaluation criteria · Reflecting results in subcontractor contracts		

AWARDS & RECOGNITIONS

2024 Safety and Health Achievements

Excellence Award at the 1st Safety Culture Innovation Awards

In recognition of our contributions to fostering a strong safety culture and establishing a sustainable management environment based on safety-first management, we received the Excellence Award at the 1st Safety Culture Innovation Awards, hosted by the Korea Employers Federation in 2024. This award reflects the strong external recognition of our safety-oriented organizational culture and systematic safety management systems. We will continue to strengthen our company-wide safety management systems.

The grand prize at the Occupational Risk Assessment Presentation Competition

Poongsan implemented customized risk assessments that take into account the experience and skill level of each employee, thereby improving workplace safety standards. By reflecting variations in risk levels by experience and proficiency, we carried out preventive measures to protect less experienced employees from exposure to accidents. As a result, we won the grand prize at the Occupational Risk Assessment Presentation Competition organized by the Ministry of Employment and Labor and the Korea Occupational Safety and Health Agency. This award granted the Ulsan site a one-year exemption from regular safety and health inspections.



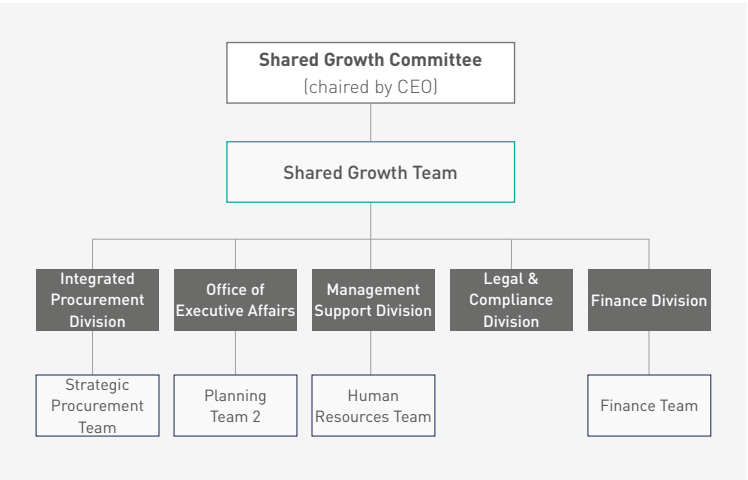
S2

Supply Chain Management

Supply Chain Management Framework

Poongsan has established and operate a Shared Growth Committee, chaired by the CEO, to build a sustainable supply chain and foster mutual growth with its suppliers. Our Shared Growth Team conducts supplier evaluations and works closely with relevant departments to provide consulting and training for suppliers in the areas of safety and the environment. We also support the continuous growth of our suppliers through various programs and the operation of a mutual growth cooperation fund.

We classify as key suppliers 200 tier-1 suppliers that are subject to perception surveys conducted by the Shared Growth Committee, as well as 70 suppliers that have signed fair trade agreements. For these suppliers, we carry out risk management activities and promote various shared growth policies.



Supply Chain Policies

Procurement Policy

Poongsan has pursued shared growth with its suppliers by fostering mutually beneficial partnerships based on a principles of fair trade. In particular, we have adopted “Partnership” as our core value for shared growth, implementing our practices in line with the four major guidelines established by the Korea Fair Trade Commission. Amid growing concerns over supply chain stability due to various risks such as geopolitical tensions, the growing impact of climate change, and the spread of protectionism, we are responding to global supply shortages. To this end, we secure supply volumes through multi-year contracts and actively promote a dual-sourcing strategy for key items.

Conflict Minerals Policy

As part of our commitment to eradicating human rights abuses, child labor, exploitation, and sexual violence in ten conflict-affected countries in Africa, including the Democratic Republic of the Congo, we prohibit the use of the four conflict minerals (tin, tungsten, tantalum, and gold) mined from these regions. Accordingly, when procuring these minerals, we source them exclusively through the Responsible Minerals Assurance Process (RMAP).

Classification	RMI Smelter ID	Smelter Name	Country of Origin
Tin	CID001482	PT TIMAH TBK	Indonesia
Tin	CID003449	PT Mitra Sukses Globalindo	Indonesia
Tin	CID002593	PR RAJEHAN ARIQ	Indonesia

Four Major Guidelines

- 1

Guideline for fair contract signing
- 2

Guideline for selecting and managing suppliers
- 3

Guideline for establishing and operating an internal review committee
- 4

Guideline on the issuance and retention of written documents



S2 Supply Chain Management

Shared Growth Policies

Poongsan engages in a variety of shared growth activities with its suppliers to ensure sustainable growth, providing financial and technical support, training programs, and other welfare benefits.

Financial Support

Performance Sharing System

Poongsan operates a system to share a portion of the achievement with its suppliers when joint improvement efforts with Poongsan lead to measurable outcomes. These efforts cover technical areas such as equipment upgrades and a wide range of ESG initiatives including reducing carbon emissions and energy use, managing and reducing waste and emissions, developing eco-friendly products, and improving safety and environmental performance.

Shared Growth Fund

Poongsan has established and operates a shared growth fund for suppliers that have signed shared growth agreements. When a supplier needs operating capital, we work with financial institutions to provide loans below-market interest rates. This helps improve liquidity and supports the supplier in maintaining stable business operations.

Early Payment Ahead of Major Holidays

Poongsan eases the financial burden on suppliers by making early payments before the Lunar New Year and Chuseok holidays.

Financial Support Highlights

Activity	Support Amount
Shared growth fund	KRW 8,410 million
Subcontract price indexation system	KRW 3,662 million
Early payment before major holidays	KRW 45,900 million

Price Adjustment Program

To alleviate the management burden on suppliers caused by sharp fluctuations in global raw material prices, we voluntarily participate in the delivery price indexation system administered by the Ministry of SMEs and Startups. Under this system, we adjust delivery prices when the prices of key raw materials supplied from our suppliers, such as hydrogen gas, tin, and copper cable, fluctuate. This ensures fair transactions and helps mitigate suppliers' financial difficulties. In 2024, we received recognition for these efforts and were selected as an excellent company in subcontract price indexation.

Rent Waiver

When the operating days of an in-house processing supplier are less than 30% of its business days in a given month, we exempt the rent for that month to promote shared growth with the supplier.

Activity	Support Amount
Mutual growth cooperation fund	KRW 40 million
Incentives for outstanding suppliers	KRW 15 million

Technical Support

Supplier Support Group

To strengthen supply chain competitiveness through supplier development, we operate dedicated support teams in management and cost, quality and technology, safety and environment, and security. These teams visit suppliers in person, assess their specific capabilities, and provide support to address identified areas for improvement.

Supplier Quality Management Process Support

Poongsan provides quality management process support for suppliers with nonconformance issues in the previous year and for new subcontracting partners. The support covers managing nonconformities, process control, equipment management, standard documentation, and operator management. Through these efforts, we help improve supplier quality, prevent quality issues at the point of receipt, and ensure the reliability of final product quality.

Supplier Training and Other Benefits

Poongsan supports the sustainable growth of its suppliers by offering online training through Hunet with tuition assistance, providing recruitment incentives, delivering ESG training, and dispatching personnel to support management activities.

Key Achievements in Technical and Other Support

Activity	Details
Online training support	Providing job training for employees of 5 suppliers
Supplier support teams	Dispatching 33 personnel to support management activities at 40 suppliers
ESG consulting	Conducting ESG consulting for 16 suppliers
ESG training	Delivering online and offline ESG training for 52 suppliers

| AWARDS & RECOGNITIONS |



S2 Supply Chain Management

Supplier Communication

Poongsan has established various communication channels to promote active engagement with its suppliers and makes continuous efforts to address their concerns and suggestions.

Supplier Satisfaction Survey

To strengthen sustainable partnerships, we conduct an annual online satisfaction survey, carried out anonymously, across six key areas such as quotations, orders and deliveries, and payment. In 2024, a total of 178 suppliers participated, and the average satisfaction score reached 92.6, an increase of 0.9 points from the previous year. The results are shared at supplier meetings held at each business site, where we also provide updates on how key suggestions and concerns are being addressed.

Supplier Meetings

At each business site, we hold supplier meetings on a regular basis to introduce new support programs and to listen to suppliers' concerns and suggestions. We share the follow-up actions taken on these suggestions to foster open communication and strengthen trust with our suppliers.

Cyber Grievance Center

Our website provides a cyber grievance center where both employees and suppliers can anonymously report issues related to unfair trade practices or unethical conduct.

Cyber Grievance Center →



2024 Supplier Meetings

Supplier Risk Management

Poongsan operates fair and transparent procedures in the selection and registration of suppliers by applying the standard contracts and four major guidelines recommended by the Korea Fair Trade Commission. In the evaluation process, we take into account suppliers' credit information, production capacity, raw material sourcing practices, and quality management systems.

Poongsan also conducts an annual comprehensive evaluation for sourcing groups such as the defense sector, raw and subsidiary materials, and equipment construction. The evaluation covers basic, capability, completion, and performance criteria, enabling us to systematically assess the overall capabilities of our suppliers. Based on the results, we provide benefits such as rewards, exemptions from performance bond requirements and credit assessment fees, and priority in order placement for high-performing suppliers. For suppliers with less satisfactory results, we request the submission of improvement plans to encourage self-driven improvement.

Supplier Evaluation Criteria

Category	Evaluation Items	
Basic evaluation	Credit assessment	Level of Cooperation
	ESG assessment	
Capability evaluation	Management/Cost	Safety/Environment
	Quality/Technology	
Completion evaluation	Completion report	
Performance evaluation	Quality/Technology	Participation
	Delivery	Contribution

AWARDS & RECOGNITIONS

2024 Recognition of Outstanding Suppliers

In 2024, Poongsan conducted a comprehensive evaluation of 227 suppliers. From this group, three suppliers were selected as outstanding partners and received plaques of appreciation and awards.



Supplier Code of Conduct

Poongsan is committed to building a sustainable supply chain together with its suppliers by ensuring safe working environments, respecting human rights, fulfilling environmental responsibility, and upholding ethical management. While recognizing and respecting our suppliers' autonomy and independence, we encourage them to faithfully implement and comply with this code of conduct so that their business principles align with sustainable management practices.

Health&Safety

Industrial safety
Hygiene management

Environment

Hazardous substances and waste management
Compliance with environmental regulations

Labor

Freely chosen employment
(prohibition of forced and child labor)
Payment of fair wages

Ethics

Fair trade practices
Protection of intellectual property rights

Managment Systems

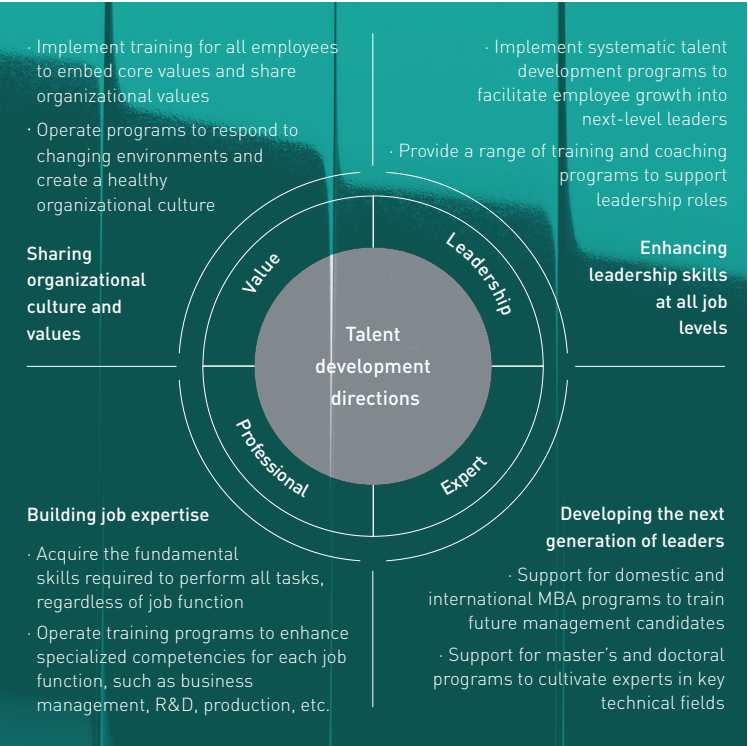
Supply chain management
Commitment to compliance

S3

Human Resources

Talent Philosophy

At Poongsan, we value talent that challenges the future, brings creativity to everything they do, embraces constant change, upholds ethics and fundamentals while valuing results, and communicates with an open mind. To foster talent that demonstrates these qualities, we have established four talent development directions (Value, Leadership, Professional, and Expert) and built a structured talent development framework based on them.



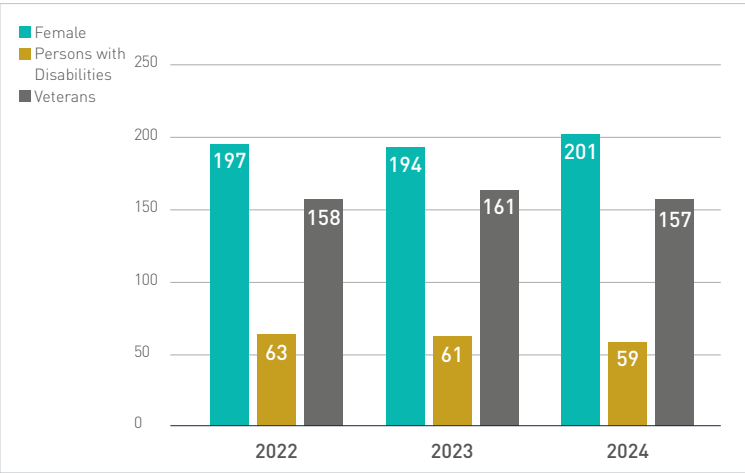
Talent Recruitment

At Poongsan, we recruit new and experienced employees through an open hiring process to secure talent capable of driving innovation and growth. In addition, a structured and specialized screening procedure is in place to objectively evaluate applicants' competencies and qualities, supported by a certified professional interviewer system to ensure fairness in the selection process.

Diversity and Inclusion

Our recruitment practices are grounded in fairness and non-discrimination, and we actively promote diversity and inclusion. We monitor our processes to ensure fair and equal opportunities for employment and performance evaluation, regardless of age, gender, or disability. In particular, we grant additional points in the recruitment process to applicants with disabilities and veterans to help ensure substantive equality.

Employee Diversity Status



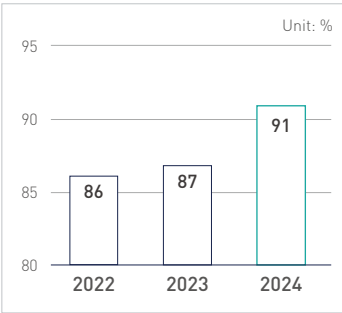
Maternity Protection Programs

Poongsan operates maternity protection programs to help female employees balance work and family life. Benefits include gifts for pregnancy, books provided on Pregnant Women's Day, and cash gifts to celebrate childbirth. We also operate nursing rooms at our office buildings to support maternity care in the workplace. In addition, to help employees smoothly return to work after parental leave, we operate the Mom-toring program, pairing returning employees with mentors who have previously taken parental leave. Through this program, employees can receive hands-on guidance and support in addressing the challenges they may face upon returning to work.

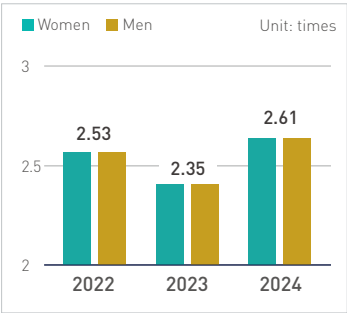
Pay Equity System

Poongsan operates its wage structure transparently and conducts regular reviews based on the principle of equal pay for work of equal value. As a result, the ratio of wages to the minimum wage is the same for both men and women, and salary gaps remain minimal. This ensures that gender equality is firmly embedded across the company. We also apply performance- and competency-based systems in recruitment, promotion, evaluation, and compensation, fostering an environment where all employees can grow under equitable conditions.

Pay Ratio of Women to Men



Ratio of Wages to Minimum Wage



S3 Human Resources

Employee Training and Career Development

At Poongsan, we provide structured training programs to enhance employee competencies, categorized into general training, leadership training, job-specific training, and special training. A three-week group training program is offered to new hires and experienced hires to support their job adaptation. Language courses, both in-house and external, are also available to encourage self-development.

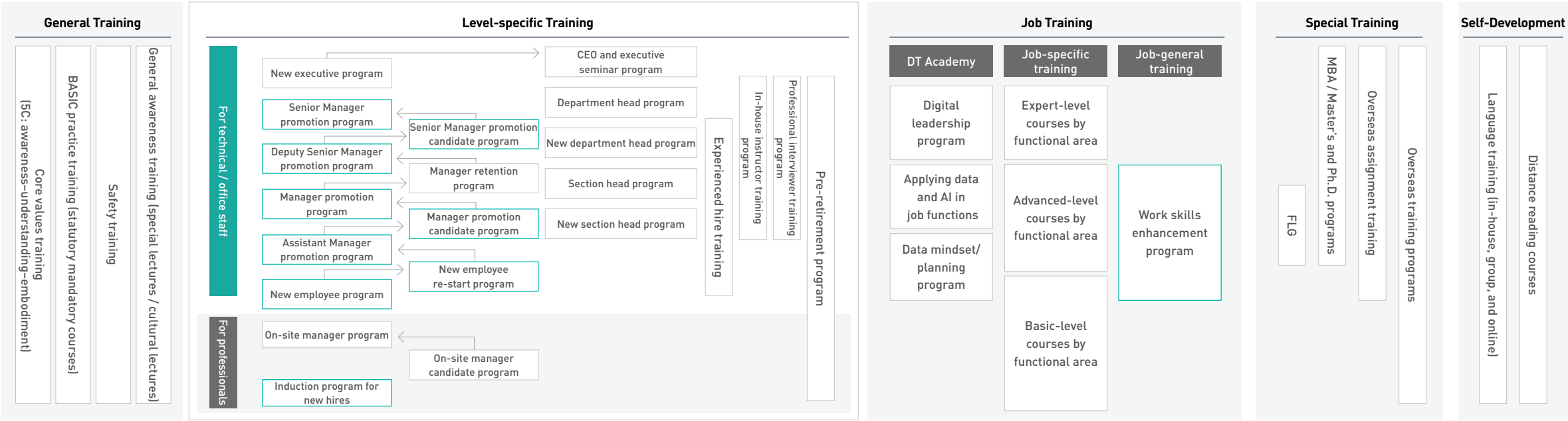
In particular, the key talent (FLG) program is designed to develop high-potential employees as future executives and department heads who can lead innovation and change. We also support MBA and master’s and doctoral programs to cultivate highly skilled professionals.

General Training	Embedding core values and sharing organizational values
Level-specific Training	Supporting career development to help employees develop into next-level leaders by position
Job Training	Enhancing expertise through common job training and level-based programs across 35 job fields
Special Training	key talent (FLG) program
	Support for MBA and master’s and doctoral programs

Performance Evaluation and Compensation

Poongsan strives to support continuous performance improvement through objective evaluations of employees’ achievements and competencies. Each year, we apply a management by objectives (MBO) system, setting performance

and competency goals. These are evaluated through a structured process of self-assessment, organizational review, department head review, rating adjustment, final rating confirmation, and feedback. To balance top-down reviews, we also conduct 360-degree evaluations. Team members are assessed by their department head and relevant colleagues, while department heads receive leadership evaluations from their teams. The results are used as references across HR systems, including promotions, compensation, transfers, and training. To ensure employees’ financial stability, we provide annual base salary increases. We also operate a variable performance bonus system that distributes the company’s collective achievements to employees. Individual performance is further differentiated based on annual performance and competency evaluations. To ensure fairness, the performance distribution table, which serves as the basis for reward allocation, is transparently disclosed to all employees.



S3 Human Resources

Organizational Culture

Poongsan aims to maximize the growth potential of both individuals and the organization by fostering a positive and vibrant culture. We are striving to create an environment that encourages employees to stay fully engaged and to develop and grow. Support for work–life balance is complemented by various programs that promote communication, collaboration, and more efficient work practices.

Fostering a Culture of Communication and Collaboration

At Poongsan, we operate structured programs to enhance communication within the organization, strengthen collaboration across departments, and improve work efficiency. These activities help build mutual understanding among employees, drive cultural innovation, and create a foundation for sustainable growth.

Goal	Program	Description	Frequency
Trans-parent Commu-nication	Poongsan Connect (town hall meetings)	Division heads share management performance and key issues with employees, followed by unit-level engagement activities	Semiannual
	Organizational culture survey	Collecting employee feedback through regular surveys to identify improvement areas	Annual
Strengthening Collabo-ration and Mutual Under-standing	Cross Lunch	One-on-one departmental pairings to share meals, discuss collaboration opportunities, and foster mutual understanding	Semiannual
	Compliment App	A mobile app through which employees can exchange praise and appreciation, helping to foster a positive work culture	At any time
	Culture Day	Company-wide and departmental cultural activities that are planned and carried out together	Semiannual
Work Efficiency	Work Smart, Work Better Project	Reducing unnecessary procedures and promoting efficient work practices to improve productivity	Ongoing

Employee Benefits

At Poongsan, we operate a wide range of programs to enhance employees’ quality of life and support work–life balance. These include flexible working arrangements such as staggered commuting hours and a flexible working hours system, on-site childcare centers and nursing facilities, and a welcome-back program for employees returning from parental leave. Recently, we introduced childbirth incentives and school entrance allowances for children to provide more tangible support for parenting. Comprehensive support for family health, children’s education, and overall well-being helps enhance work engagement and job satisfaction. Our benefits programs are also continuously improved and expanded to foster a sustainable organizational culture.

Category	Description
Leave System	Family event leave, annual summer leave, self-development leave, and recognition trips for employees nearing retirement
Childcare Support	Tuition support for children and childbirth incentives
Flexible Work System	Staggered commuting hours and flexible working hours system
Health Support	Accident, disability, and life insurance coverage, as well as comprehensive health screenings for employees and their spouses
Housing Support	Provision of 1,112 company-provided housing units
Club Activities	Support for approximately 50 employee clubs across the company
Operation of on-site Childcare Centers	On-site childcare centers at the Angang and Ulsan sites
Reemployment Support	Services for employees aged 50 and above preparing for retirement
Other Support	Mobile phone allowances, welfare points, employee welfare fund loans, and long-service awards

Poongsan Connect



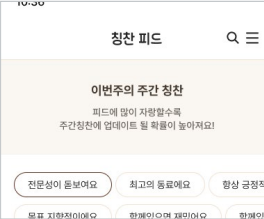
Cross Lunch



Culture Day



Compliment App



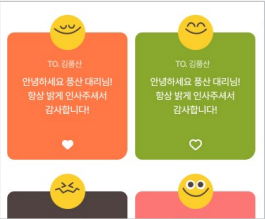
칭찬 피드

이번주의 주간 칭찬

피드에 많이 자랑할수록 주간칭찬에 참여미트 될 확률이 높아져요!

전문성이 돋보여요 | 최고의 동료예요 | 항상 긍정적

투표 지원책이예요 | 함께이으며 재미이어요 | 함께이



TO: 김용서

안녕하세요! 용서 대리님! 항상 믿게 인사주셔서 감사했습니다!

TO: 최용나

안녕하세요! 용나 대리님! 항상 믿게 인사주셔서 감사했습니다!

S3 Human Resources

Labor-Management Relations

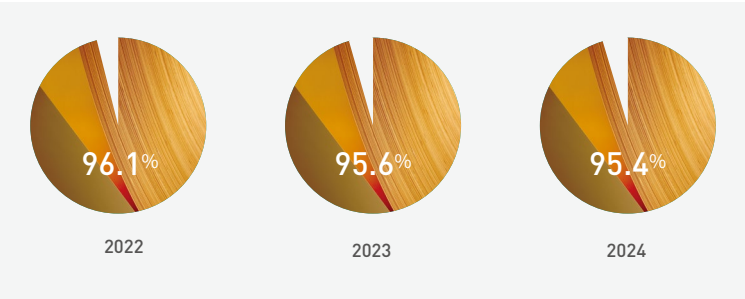
In 2024, Poongsan marked the 24th anniversary of the Labor-Management Cooperation Declaration, reflecting its commitment to maintaining stable and constructive labor-management relations. We strictly comply with the Labor Union and Labor Relations Adjustment Act and fully guarantee legitimate union activities. Annual wage negotiations are conducted, and every two years collective bargaining on employee benefits is held to help maintain and improve working conditions. Joint safety and health campaigns are also carried out by labor and management, demonstrating a shared commitment to achieving zero-accident workplaces and fostering a safe working environment. These initiatives represent our ongoing efforts to strengthen labor-management partnerships grounded in mutual trust and cooperation.

In accordance with the Act on the Promotion of Workers' Participation and Cooperation, quarterly labor-management councils are held at each site. These councils provide a platform for sharing business performance and human resources updates, and serve as a forum for open discussions on employee welfare and benefits. Proposals are reviewed and decided through consultation, and the progress of those implemented is reported on a regular basis, helping to build trust between labor and management.

24th Anniversary of the Labor-Management Cooperation Declaration



Union Membership Rate



Major Agenda of Labor-Management Council



Amendments to Council and Election Rules



Workplace Environment Enhancements



Fund Management Status



Incentives to Encourage Employee Health Campaign Participation

Human Rights Management

Human Rights Grievance Handling Process

Poongsan operates the cyber grievance center on its website, where employees can anonymously report workplace harassment, sexual harassment, and other human rights violations.

Cyber Grievance Center →

Human Rights Training

Poongsan provides a variety of training programs to enhance awareness of human rights among all employees and suppliers.

Training Program	Participants
Disability awareness training	3,756
Sexual harassment prevention training	3,759
Workplace harassment prevention training	3,759

2024 Human Rights Training



S4

Community Engagement

Poongsan carries out a wide range of social contribution activities in the local communities where its sites are located. These efforts reflect our belief in contributing to the nation through business and our commitment to corporate social responsibility.

Educational Scholarships

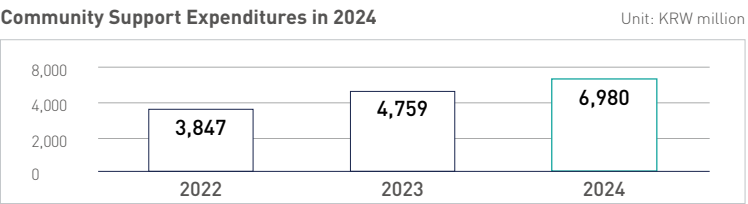
Poongsan continuously supports education and scholarship programs in the belief that nurturing outstanding talent is the foundation of national development. We operate scholarship programs in Pungsan-eup and Hahoe in Andong, Gyeongbuk, and extend this support to other local communities where our sites are located, including Ulsan University and Handong University.

Byeongsan Educational Foundation

At Poongsan, we support the Byeongsan Educational Foundation, which was established in 1947 to continue the legacy of Byeongsan Seowon. Pungsan High School, operated by the foundation, upholds the educational philosophy of fostering patriotism, morality, and capable individuals. With expanded educational facilities and scholarship programs, it has grown into a prestigious private high school where students develop both character and competence.

Hakrok Scholarship

Established by Poongsan to provide financial assistance to high-achieving students from disadvantaged backgrounds and to support those who have made notable contributions to the advancement of educational research.



Volunteer Activities and Donations

Poongsan is committed to making a positive impact in the communities where it operates with various volunteer activities and donations.

Cultural Activities

Poongsan provides regular support to the Pearl S. Buck Foundation Korea to assist multicultural families. In addition, we sponsor cultural initiatives to promote Korean young artists on international stages, including debut concerts at Carnegie Hall in New York.

Support for Vulnerable Groups by Site

Site	Amount
Seoul	KRW 838 million
Angang	KRW 109 million
Ulsan	KRW 93 million
Busan	KRW 38 million
Institute of Defense Technology	KRW 18 million

AWARDS & RECOGNITIONS

Outstanding Donation Award

In recognition of our contribution to improving community welfare and promoting a culture of giving, we received an Outstanding Donation Award from the Seoul Metropolitan Government in 2024.

Angang Plant	- Donations through matching grant fundraising - Providing financial support to underprivileged students until graduation - Volunteering in kimchi-making initiatives
Ulsan Plant	- Making year-end donations to support neighbors in need - Volunteering at facilities for children with severe disabilities and repairing homes for elderly residents living alone - Partnering with Sanghoe Village Sanghoe Village through the One Company One Village program and assisting with farming activities - Participating in the One Company One River campaign organized by Ulju-gun, Ulsan - Supporting the Platanus joint wedding ceremony to provide new beginnings for former inmates
Busan Plant	- Donating funds raised through matching grant campaigns - Providing daily necessities for households with people with disabilities and for older adults - Donating year-end funds to support neighbors in need



S5 Information Security

Information Security Risk Management

At Poongsan, we annually establish disaster recovery plans and operate a cyber incident response manual and process to proactively address potential risks associated with information security incidents. A 24/7 monitoring system is also in operation to ensure timely detection and response.

In addition, annual information security action plans are developed, and security solution logs are regularly reviewed to identify and block potential intrusion paths.

To prepare for system failures caused by disasters or cyber incidents, we conduct backup recovery drills twice a year. These drills help strengthen our ability to restore key information systems quickly. We also carry out regular vulnerability assessments of company-wide security systems and remediate identified weaknesses within one month, ensuring continuous improvements to our security posture. Furthermore, upon the disclosure of critical public vulnerabilities related to our assets, we promptly assess their impact and implement necessary security updates, reinforcing our ability to respond to emerging threats.

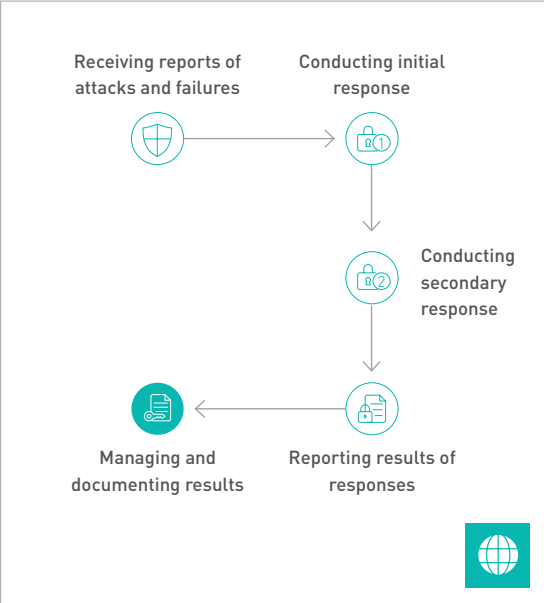
Privacy Violations

Source	Unit	2024	2023	2022
External reports	Case	-	-	-
Reports from regulatory authorities	Case	-	-	-

Response Measures for Security Incidents

1	Blocking user PC network connections
2	Checking PC antivirus logs
3	Requesting analysis of suspicious files
4	Conducting virus infection checks for all users via PMS
5	Reviewing PC event logs and system logs
6	Checking Task Manager (abnormal processes) and suspicious ports
7	Analyzing communications with malicious IPs and firewall rules/logs
8	Reviewing and changing PC accounts and passwords
9	Changing or resetting passwords for business portal and core systems
10	Applying the latest Windows security patches
11	Reporting to relevant authorities, preserving on-site/system data, and collecting/submitting evidence

Cyberattack and Failure Handling Procedures



Cyberattack Response Levels

Level	Descriptions	Response Measures
Severe (RED)	· Nationwide unavailability of networks and information systems · Widespread security incidents with large-scale damage · Joint national-level countermeasures required	· Maintaining High (ORANGE) alert measures · Blocking service ports of targeted attacks · Minimizing PC use within the organization · Disconnecting high-risk networks
High (ORANGE)	· Disruptions or outages of multiple ISPs or backbone networks · Security incidents across multiple organizations or with the potential to escalate into large-scale damage · Coordinated multi-agency countermeasures required	· Maintaining Moderate (YELLOW) alert measures · Resetting blocking rules in case of denial-of-service attacks · Backing up critical data · Strengthening monitoring of malicious IPs and ports and vulnerability checks · Considering isolation of high-risk networks
Moderate (YELLOW)	· Partial network or information system disruptions · Security incidents in some organizations or with the potential to spread to multiple others · Strengthening security posture across national information systems required	· Maintaining Low (BLUE) alert measures · Enhancing monitoring of target systems, service ports, and scanning activities · Blocking potential infection routes of worms, viruses, and other malware
Low (BLUE)	· Increased likelihood of damage from worms, viruses, or cyberattacks · Risk of overseas cyberattacks spreading domestically · Strengthening threat detection and monitoring activities required	· Strengthening monitoring upon disclosure of critical worms, attack techniques, or security vulnerabilities · Disabling unnecessary services · Reviewing blocking rules of routers, switches, and intrusion detection systems · Checking vendor contact information for incident response
Normal		· Regularly checking for updates from the National Cyber Security Center website (http://service1.nis.go.kr) and the information-sharing system · Conducting regular inspections of major information systems · Reviewing servers, networks, security equipment, and security policies

S6

Quality Management

Quality Management Framework

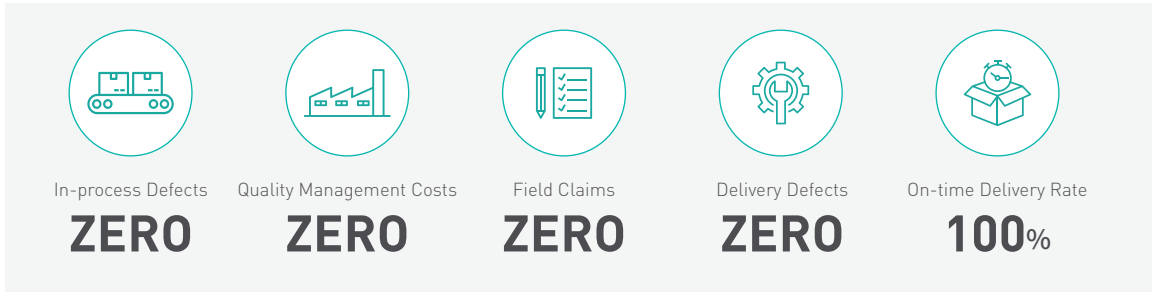
Poongsan has established a systematic quality management system by acquiring ISO 9001 certification at its plants in Ulsan, Busan, and Angang, and continues to improve the quality of its products and services. In particular, the Angang Plant has additionally obtained DQMS (Defense Quality Management System) certification and AS9100 certification, ensuring compliance with higher quality standards.

Overview of Key Certifications Obtained →

Quality Management Policy

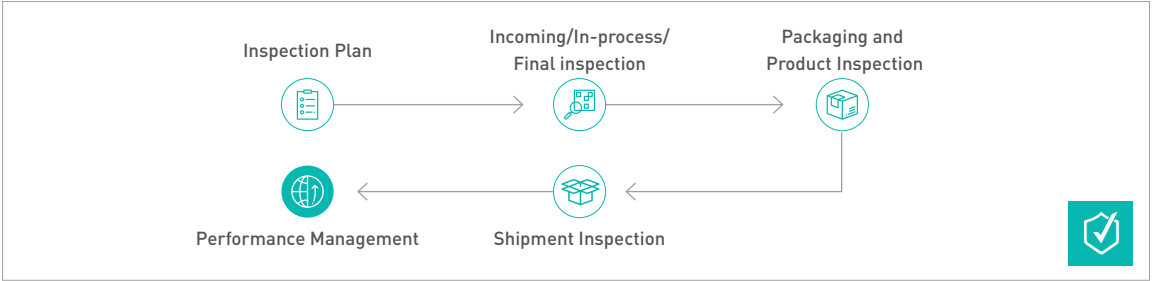


Quality Objectives



Quality Management Process

Poongsan has established and operates inspection and management processes covering both production processes and products to deliver the highest quality to its customers.



Quality Assurance Activities

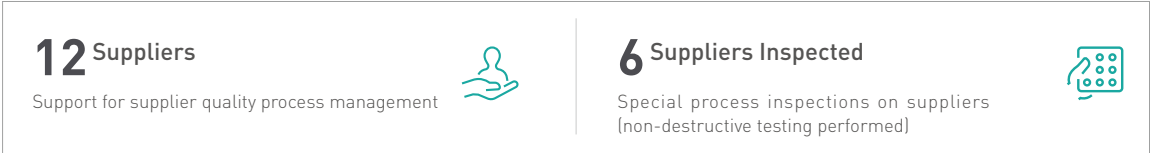
Quality Innovation Meetings

At Poongsan, we hold regular monthly quality innovation meetings to share information on quality issues arising at production sites among relevant departments such as engineering, production, and quality. These meetings help us resolve problems through collaboration and ensure their prompt resolution. The meetings also drive continuous improvement activities to raise overall quality standards.

Supplier Support and Special Process Inspections

Poongsan supports suppliers in establishing their quality management processes, thereby preventing nonconformities in incoming materials and addressing quality issues proactively. In particular, to ensure the quality of finished ammunition, we conduct special process inspections on suppliers.

2024 Performance



S6 Quality Management

Special Internal Quality Audits

Poongsan conducts special internal quality audits in the event of quality issues to prevent severe defects or large-scale failures.

Audit Scope

- Checking compliance with work standards related to quality issues and quality control procedures for incoming materials
- Checking the effectiveness of corrective and preventive measures for each affected item

Cooperation With the Defense Agency for Technology and Quality

Poongsan cooperates with government agencies to improve the efficiency of quality management and strengthen independent quality assurance capabilities. Activities include quality assurance briefings and expanding the range of items subject to government-delegated inspection.

Equipment Block Activities

The Angang plant has identified seven core tasks under Equipment Block activities focusing on people, equipment, and systems. These initiatives aim to establish a specialized ammunition production site that achieves zero accidents, zero breakdowns, zero defects, and zero waste, ensuring the highest product quality.

Equipment Self-management Manual	Manuals developed to support proper understanding of equipment
Safety/Quality Spark Points	Documenting Spark points from near misses, human errors, and quality incidents, and applying them in training to prevent safety and quality accidents
Equipment Inspection and Restoration	Activities to optimize equipment and develop skilled operators
Equipment Checklist	Developing checklists with inspection items, standards, and cycles tailored to equipment characteristics, and recording results numerically
Promoting a Waste-free Production Site	Eliminating waste losses generated on site to achieve a waste-free operation
OPL Videos	Building and sharing technical expertise and know-how
6S1E-VM Activities	Developing site-specific methods to sustain and manage 5S activities

Management System Certification and Maintenance

Poongsan acquires and maintains domestic and international certifications for management systems, including safety, environment, and quality.

Quality Training

Poongsan provides quality training by inviting internal and external experts to enhance quality awareness and promote problem-solving and continuous improvement.

Quality Training with External Lecturers

Training Provider	Training Topics	Sessions Conducted
Korean Standards Association	Effective problem-solving methods	7
Korean Standards Association	Explanation of key requirements of the defense quality system and other systems; identifying nonconformities and preparing nonconformity reports	1
	Preparing corrective action reports	

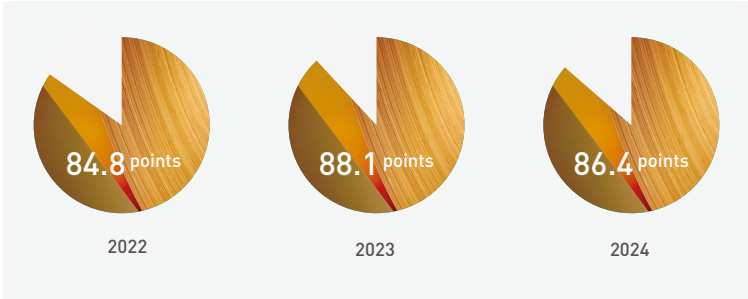
Internal Quality Training

Lecturer	Participants	Sessions Conducted	Training Topics
Technical staff of the Quality Technical Division	Quality Control Section	16	· Customer complaints and process-specific defect cases · Establishing and implementing improvement measures · Sharing quality issues
	Casting Team 1st Section	16	
	Casting Team 2nd Section	15	
	Rolling Production Team 1st Section	12	
	Rolling Production Team 2st Section	11	
	Rolling Production Team 3rd Section	15	
	Rolling Production Team 5th Section	14	
	Rolling Production Team 6th Section	15	
	Tubing & Extruding Production Team	12	
	Coin Blank Production Team	12	
	Production and quality professionals		

Customer Satisfaction Survey

Annually, we conduct a customer satisfaction survey to ascertain customer opinions and improvement requirements related to quality. The survey evaluates quality-related satisfaction as well as service-related satisfaction, which covers sales service, on-time delivery, and brand reliability. The average of these scores is used as an evaluation indicator. For items that did not meet the target score, we coordinate with the relevant departments, establish detailed improvement plans, and implement follow-up measures.

Customer satisfaction survey score



G1 Sound Corporate Governance

Poongsan maintains a corporate governance framework based on transparency, soundness, and stability to enhance shareholder value and protect the rights and interests of stakeholders. We are also committed to continually enhancing this framework so that it reflects our growth strategy and organizational culture.

Sound corporate governance is achieved through checks and balances between the board of directors and management, with the participation of outside directors. The board is responsible for major corporate decisions, and management carries out business operation. Management provides regular progress reports to the board, fostering effective oversight and collaboration.

Composition of Board of Directors

The board of directors serves as the company’s highest decision-making body and focuses on achieving sustainable growth by enhancing corporate value. Our board consists of seven directors, including three internal directors and four outside directors. With more than 57 percent of the board made up of outside directors, the board maintains independence from management. For efficient and prompt operation, the CEO serves as the chair of the board.

To enhance expertise in decision-making and improve efficiency, we operate specialized committees within the board, including the Management Committee, Audit Committee, and Outside Director Nomination Committee. The Audit Committee is composed entirely of outside directors, including the chair, and the Outside Director Nomination Committee has a majority of outside directors, including the chair, to ensure independence.

Outside directors are prohibited from serving as directors, executive officers, or auditors in two or more other companies. This policy ensures that they can devote themselves fully to their board responsibilities.

Board of Directors Composition and Experience

Inside
Directors



Ryu Jin | Male
Chairman, Federation of Korean Industries



Park Woo-dong | Male
Chairman, Korea Nonferrous Metal Association



Hwang Se-Yung | Male
Director, Poongsan Holdings Corporation

Outside
Directors



Hwang Hee-chul | Male
53rd Vice Minister, Ministry of Justice



Jung Hyun-ok | Female
Former Vice Minister, Ministry of Employment and Labor



Yang Ihl-soo | Male
Certified Public Accountant, E-JUNG Accounting Corporation



Lee Jeon-hwan | Male
Former Commissioner of the Busan Regional Tax Office

■ Board of Directors

■ Management Committee

■ Outside Director Nomination Committee

■ Audit Committee

□ Chairperson / Committee Chair

BOD Committees

Management Committee

The Management Committee is a board committee established under the Articles of Incorporation, board regulations and resolutions to enhance expertise and efficiency in carrying out business operations. It deliberates on and resolves board-delegated matters. In 2024, the committee held 25 meetings and reviewed agenda items including guarantees for subsidiaries and borrowing agreements.

Outside Director Nomination Committee

The Outside Director Nomination Committee ensures transparency and soundness in the nomination process for outside directors and recommends candidates who serve the best interests of both the company and its shareholders through fair and transparent procedures. The committee thoroughly verifies whether candidates meet the statutory qualifications related to independence and expertise. It is composed of two outside directors and one internal director, with outside directors forming the majority in accordance with relevant laws and the Articles of Incorporation. By appointing outside director Hwang Hee-cheol as the committee chair, the independence and transparency of the committee were further enhanced. In 2024, the committee held two meetings and deliberated on agenda items including recommendations for outside director candidates.

Audit Committee

The Audit Committee is composed entirely of three outside directors. It supervises the overall activities of directors and management and audits accounting matters to support sound decision-making. The committee has the authority to convene extraordinary general meetings, make statements on agenda items at general meetings, submit audit reports, and appoint external auditors. Its responsibilities also include approving the establishment and revision of internal accounting management regulations, evaluating the operation of the internal accounting management system, and reviewing the independence of non-audit services provided by external auditors. These activities enhance the company's accounting transparency and strengthen internal controls. In 2024, the committee held five meetings and deliberated on agenda items such as the evaluation of the internal accounting management system and the independence of non-audit services provided by external auditors. The committee also holds quarterly meetings with external auditors, without management being present.

61 Sound Corporate Governance

Board Operations

In accordance with Article 32 of the Articles of Incorporation and Article 6 of the Board Regulations, the Board of Directors convenes on a regular basis, and extraordinary meetings may be held as needed. The meeting date is set and, in principle, directors are notified in writing or verbally at least one day in advance. If all directors unanimously agree, a meeting may be held without following these procedures. Board resolutions require the attendance of a majority of directors and the approval of a majority of attendees. Directors may also participate through telecommunication systems that allow for real-time voice transmission, even when not physically present. In addition, under the Board Regulations, directors with a special interest in a particular agenda item are restricted from voting, which helps prevent conflicts of interest. All directors participate in board and committee activities to perform their duties. In 2024, the Board convened seven times and resolved matters including the approval of financial statements, the nomination of director candidates, and the calling of the annual general meeting of shareholders. Attendance by both inside and outside directors was 100 percent. Individual attendance and voting records on agenda items are disclosed in the business report. The Board also reviews non-financial performance and plans, such as occupational safety and health plans and the operation of the internal control system over financial reporting.

Board Evaluation and Compensation

Directors serve until the annual general meeting of shareholders for the fiscal year ending within two years after their appointment. Reappointment is determined through a comprehensive evaluation of attendance, the appropriateness of advice provided, and the effectiveness of their contributions to board deliberations.

Directors’ compensation is provided within the total compensation limit approved by the general meeting of shareholders. Compensation for inside directors is determined based on the value of their duties, while compensation for outside directors is set in accordance with Poongsan’s executive compensation regulations. Outside directors receive the same fixed amount without additional allowances or meeting fees. However, taking into account the responsibilities and risks associated with their role, Audit Committee members receive an additional 10 percent of their base compensation, and committee chairs receive an additional 20 percent. In accordance with relevant laws, we disclose in the business report the compensation of any director whose individual remuneration exceeds KRW 500 million.

Board Diversity and Expertise

At Poongsan, we do not restrict director appointments based on nationality, gender, religion, or race. The board is composed of experts with diverse professional backgrounds in fields such as management, law, accounting, and labor relations. This diversity enables the board to represent the interests of shareholders and other stakeholders, while also incorporating social values into major decision-making processes. Furthermore, the Articles of Incorporation stipulate that the board shall not consist entirely of directors of a single gender, ensuring gender diversity in its composition.

Background of BOD Appointments

Type	Name	Assessment of Professional Expertise and Diversity	Year of Initial Appointment
Inside Directors	Ryu Jin	With extensive executive experience at the Poongsan Group, played a key role in defining the company’s strategic positioning in the industry	2008
	Park Woo-dong	As COO, oversees overall management and contributes to the development of business strategies as a seasoned executive	2009
	Hwang Se-yung	Brings extensive knowledge and insight as a seasoned executive in the financial sector	2021
Outside Directors	Hwang Hee-chul	Provides professional legal advice drawing on extensive experience in public service and law	2020
	Jung Hyun-ok	Applies expertise in labor relations to improve working conditions and prevent industrial accidents	2022
	Yang Ihl-soo	Brings professional expertise in accounting and finance as a certified public accountant	2022
	Lee Jeon-hwan	Extensive public service career at the National Tax Service and experience as an outside director of leading listed companies, with expertise in taxation and accounting	2024

BSM, Business Skills Matrix

Category	Ryu Jin	Park Woo-dong	Hwang Se-yung	Hwang Hee-chul	Jung Hyun-ok	Yang Ihl-soo	Lee Jeon-hwan
Leadership	■	■					
CFO experience			■				
Finance & accounting			■			■	■
Production & R&D		■					
Legal & regulatory				■			
Labor affairs					■		

61 Sound Corporate Governance

Board Training

To support directors in fulfilling their responsibilities effectively, we provide information and training on key management issues, including industry trends and investment plans.

Training Date	Training Organization	Attending Directors	Training Content
2024-02-01	Planning Team 1	Ryu Jin, Park Woo-dong, Hwang Se-Yung, Kim Deok-jung, Hwang Hee-chul, Jung Hyun-ok, Yang Ihl-soo	Key issues related to company operations
2024-05-28		Ryu Jin, Park Woo-dong,	
2024-07-19		Hwang Se-Yung, Hwang Hee-chul,	
2024-10-25		Jung Hyun-ok, Yang Ihl-soo, Lee Jeon-hwan	

Directors’ Liability Insurance

Poongsan is covered by directors’ liability insurance, with the premiums paid by the company.

Board Independence

To strengthen board independence, the board consists of four outside directors out of seven members (57 percent). In addition, a majority of members in two of the board’s committees, the Audit Committee and the Outside Director Nomination Committee, are outside directors. The chair of each of these committees is also an outside director. This structure ensures independence from management.

To further enhance the independence and transparency of board appointments, the Outside Director Nomination Committee takes into account diversity factors such as nationality, gender, religion, and race, and nominates candidates who meet relevant laws and the Articles of Incorporation. Final appointments are made by resolution of the general meeting of shareholders.

Independent Operation of the Audit Committee

The Audit Committee is composed entirely of outside directors to ensure its independence from management. To support effective and efficient operations, the Poongsan Holdings Audit Office serves as the supporting department for the committee, assisting with tasks such as financial statement reviews and internal accounting control system operations. Under Article 6 of the Audit Committee Regulations, the committee is granted the authority to seek assistance from external experts at the company’s expense when necessary to perform its duties.

Monitoring of Non-audit Services

Poongsan regularly monitors the independence of external auditors. Non-audit services provided by external auditors are reported to the Audit Committee in the first quarter of each year and are performed in a manner that does not compromise auditor independence.

Qualifications for Outside Directors	Hwang Hee-chul	Jung Hyun-ok	Yang Ihl-soo	Lee Jeon-hwan
Must not be a director, executive officer, or employee of the company, nor have served in such a position within the past two years.	■	■	■	■
If the largest shareholder is an individual, must not be the shareholder, the shareholder’s spouse, or a lineal ascendant or descendant.	■	■	■	■
If the largest shareholder is a corporation, must not be a director, auditor, executive officer, or employee of that corporation.	■	■	■	■
Must not be the spouse or a lineal ascendant or descendant of a director, auditor, or executive officer of the company.	■	■	■	■
Must not be a director, auditor, executive officer, or employee of the company’s parent company or subsidiaries.	■	■	■	■
Must not be a director, auditor, executive officer, or employee of a corporation that has significant business relations or other material interests with the company.	■	■	■	■
Must not be a director, auditor, executive officer, or employee of another company where the company’s directors, executive officers, or employees serve as directors or executive officers.	■	■	■	■
Must not be a minor, a person under adult guardianship, or a person under limited guardianship.	■	■	■	■
Must not be an undischarged bankrupt.	■	■	■	■
Must not have been sentenced to imprisonment or a heavier punishment, if less than two years have passed since the completion or exemption of the sentence.	■	■	■	■
Must not have been dismissed or removed from office for violating laws specified by Presidential Decree (Article 34(3) of the Enforcement Decree of the Commercial Act) within the past two years.	■	■	■	■
Must not be the largest shareholder (excluding non-voting shares) or a specially related person (as defined in Article 34(4) of the Enforcement Decree of the Commercial Act) if their shareholding is the largest among shareholders.	■	■	■	■
Must not, in their own name or in the name of another, own 10 percent or more of the company’s voting shares or otherwise exercise de facto influence over major management decisions such as the appointment or dismissal of directors, executive officers, or auditors, nor be the spouse or a lineal ascendant or descendant of such a shareholder (a major shareholder).	■	■	■	■
Must not fall under any other category defined by Presidential Decree (Article 34(5) of the Enforcement Decree of the Commercial Act) that makes it difficult to faithfully perform the duties of an outside director or that may affect the management of a listed company.	■	■	■	■
Must be recommended by the Outside Director Nomination Committee.	■	■	■	■

G1 Sound Corporate Governance

Shareholder Rights Protection

General Shareholders’ Meetings

Poongsan sends notices of convocation, including all relevant matters, in writing at least four weeks prior to the general meeting of shareholders, in accordance with the Commercial Act and its Articles of Incorporation. The notice is also disclosed through DART, KIND, and our website to encourage shareholder participation. Since 2015, we have introduced electronic voting and electronic proxy systems to enhance convenience in exercising voting rights. In addition, we support proxy voting by providing electronic disclosures through DART, making it easier for shareholders to exercise their rights.

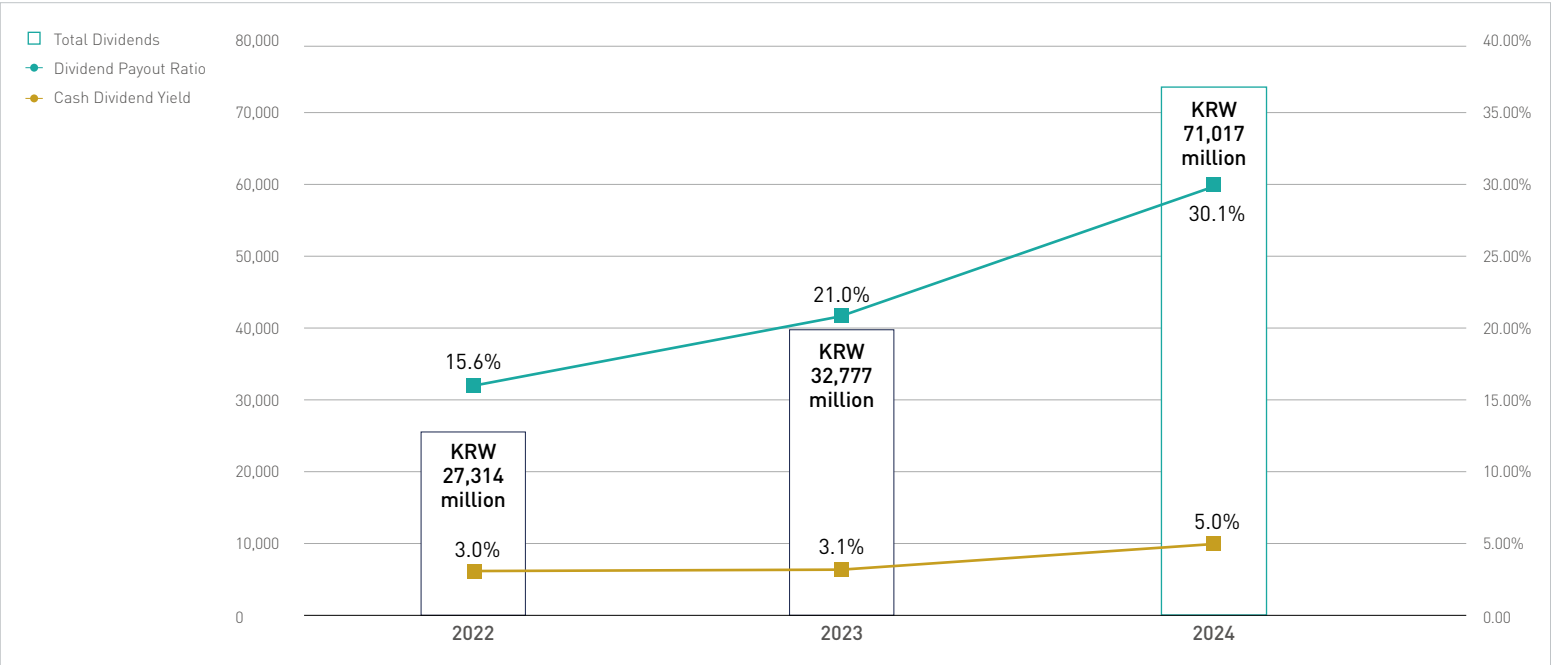
Cash Dividends

Poongsan has paid dividends every year for the past three years. Dividend-related information is disclosed through KIND, DART, and our website when the board finalizes the resolution on dividends, six weeks prior to the general meeting of shareholders. In 2022, the Articles of Incorporation were amended at the annual general meeting to allow quarterly dividends, providing the legal foundation for their implementation.

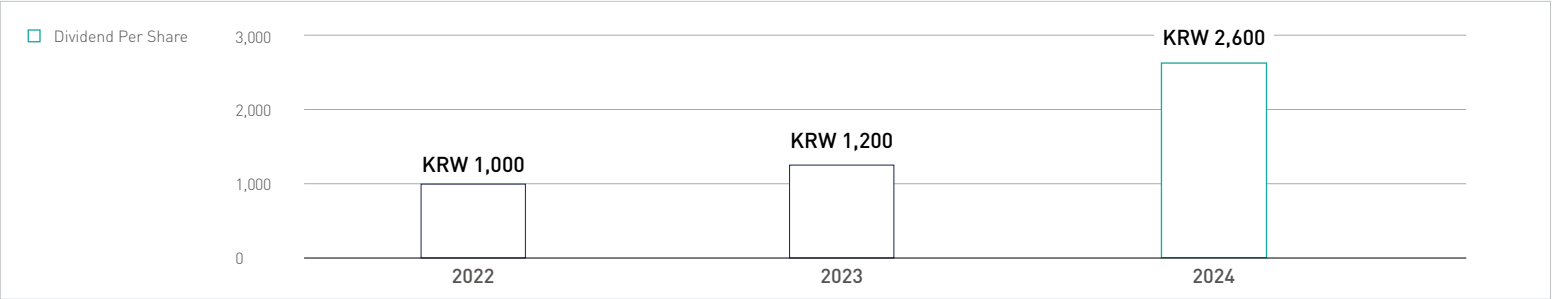
At the 2024 annual general meeting of shareholders, we revised the Articles of Incorporation to enhance dividend predictability for shareholders. Under the amendment, the ex-dividend date must be set after the interim dividend amount has been finalized.

Going forward, we will pursue a dividend policy that reflects shareholder interests and ensures predictability, while also striving to enhance corporate value through consistent dividend payments.

Dividends and Payout Ratio



Dividend Per Share

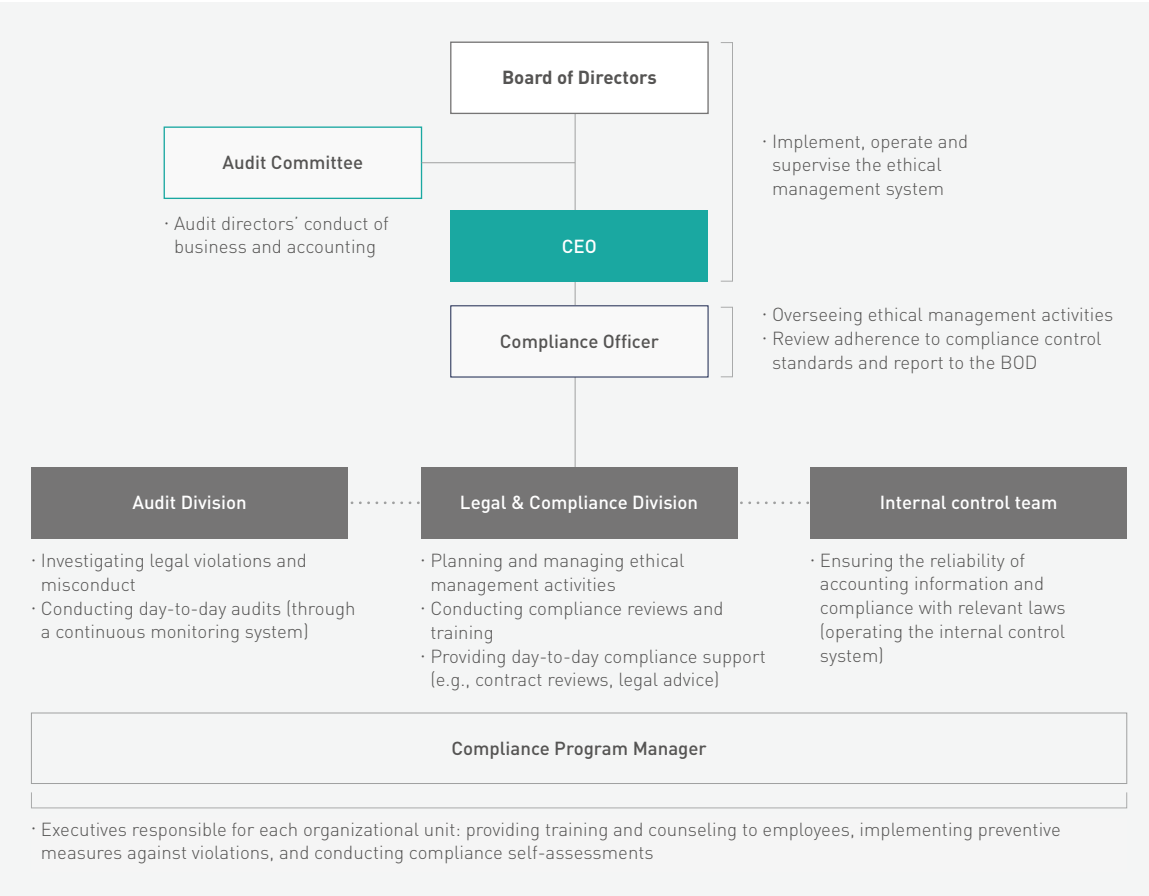


G2

Ethical Management

Ethical Management Framework

Governance Structure for Ethics



Since declaring our commitment to ethical management in 2007, we have established a regulatory framework by adopting the Ethical Charter, the Code of Ethics, and the Implementation Guidelines, and have continued to strengthen their implementation. Guided by the Ethical Charter, the company and all employees are striving to implement ethical management.

Declaration of Ethics

- We shall conduct all Company affairs in a fair and honest manner, and shall strive to foster a thoroughly ethical culture as a proud member of the Poongsan team.
- We shall respect each of our colleagues and contribute to a work environment where ability and achievement are assessed fairly.
- We shall comply with relevant laws and regulations, respect ethical commercial practices, and seek mutual development through fair and transparent transactions.
- We shall consider and protect our customers' interests in all Company decisions, actions and goal-setting.
- We shall pursue the benefits to share- holders by achieving steady profits through efficient management.
- We shall recognize, respect and redeem the wide range of social responsibilities we bear to the communities where we operate, and where our customers live.

Framework for Ethical Management



62 Ethical Management

Practicing Ethical Management

Integrity Pledge

Each year, all our employees submit an Ethical Management Pledge, committing themselves to fulfill their responsibilities with high ethical standards and to understand and comply with applicable laws and the Code of Ethics. The pledge includes adherence to anti-corruption laws and a zero-tolerance approach to violations.

Report and Whistleblower Protection

Poongsan operates multiple reporting channels, including the cyber grievance center. These channels allow employees to report violations of laws or our Code of Ethics either anonymously or with their name disclosed. We have adopted robust whistleblower protection policies, ensuring confidentiality and prohibiting any form of retaliation against those who report in good faith.

Protection Policy of the Whistleblower

- 1 The identity of the whistleblower shall be kept strictly confidential and the whistleblower shall not be subject to any disadvantages due to reporting, testifying or providing information.
- 2 The Company shall strictly prohibit any unfair or disadvantageous treatment of the whistleblower, officers or employees who conducted ethics related questioning and employees who participated in internal investigation.
- 3 In case where the whistleblower requests protective measures or change in position in order to avoid disadvantages due to reporting, the Company shall take all reasonable measures deemed necessary.
- 4 If the whistleblower reports violations or unfair practices related to him or her, such report can be considered as mitigating factor. All whistleblowers shall not be subject to any disadvantages in personnel management due to the whistleblowing.

Report of the Receipt of Valuables, Entertainment or Convenience

In accordance with our Code of Ethics, all employees are prohibited from receiving money, gifts, or favors from stakeholders. Every year during Lunar New Year and Chuseok, we conduct a No Giving or Receiving Gifts campaign to promote a culture of fair transactions. Employees are required to decline and promptly return any money or gifts they are offered. If returning the items is unavoidably difficult, they must be reported to the Audit Division.

Ethics Training for Employees

At Poongsan, we operate a variety of training programs to enhance employees’ awareness of ethics and compliance. All employees, including new hires, receive regular or ad hoc online and offline training on the company’s fundamental policies on ethical management, the Code of Ethics framework, and standards of conduct. In addition, every year we provide mandatory training to all employees on the prevention of sexual harassment, workplace bullying, and disability awareness in the workplace.

Compliance Framework Overview

Compliance Control Environment	Compliance Control Activities	Effectiveness Evaluation
• Establishment of compliance control standards · Applied to all operations and employees • Development of the compliance control framework · Organizational structure and roles and responsibilities • Appointment of a Compliance Officer · Appointment and dismissal by the board of directors · Guaranteed term of office · Qualifications, status, and authority of the Compliance Officer • Independence in performing the Compliance Officer’s duties · Direct reporting to the board of directors · Restrictions on concurrent positions	• Assessment and management of legal risks · Categorization of legal risk activities • Compliance reviews by the Compliance Officer · Review of compliance with the compliance control standards · Reporting to the board of directors • Compliance reviews by the Compliance Program Manager · Reporting review results to the Compliance Officer • Day-to-day compliance support · Contract review and legal advisory services · Establishment of communication channels with the Compliance Officer • Establishment of internal reporting systems and protection of reporters • Procedures for addressing violations • Compliance education and training programs • Establishment of an integrated information management system	• Evaluation of the effectiveness of the compliance control framework · Compliance control standards · Legal risk assessment and management · Compliance reviews and reporting · Independence of the Compliance Officer in carrying out duties · Measures for handling violations • Reporting of evaluation results to the board of directors • Development of improvement measures by the board of directors • Employee rewards and recognition

Compliance

Poongsan appoints a Compliance Officer in accordance with the Commercial Act and operates compliance control standards and procedures to ensure that employees perform their duties in line with sound corporate management.

Since 2008, we have implemented and operated a Fair Trade Compliance Program to comply with fair trade laws and proactively respond to fair trade risks.

Furthermore, to enhance internal and external trust in the financial information we prepare and disclose, including underlying transaction data, we operate an internal accounting control system as prescribed in Article 2-2 of the Act on External Audit of Stock Companies.

G2 Ethical Management

Operation of Compliance Program

As illustrated by our CEO’s declaration of commitment to compliance, Poongsan is implementing a comprehensive compliance program (CP) to ensure voluntary compliance with fair trade laws and regulations. In support of this commitment, we have put in place operating guidelines for the Fair Trade Compliance Program and appointed a Compliance Program Manager. We also promote compliance across the company through manuals, training, and monitoring activities. These initiatives demonstrate our commitment to voluntary compliance with fair trade laws and regulations.

These efforts promote fair competition and transparent transactions, helping us build trust with customers and suppliers. By fostering a culture of fair trade, we also work to reduce potential risks in advance, including financial losses, reputational damage, and a loss of creditworthiness.

Internal Accounting Control

Poongsan operates an internal accounting control system in accordance with the Act on External Audit of Stock Companies to enhance the credibility of the financial information the company prepares and discloses. The system is designed to identify and manage the risk of material misstatements in our financial statements and is operated in line with audit standards. Each year, the CEO reports on the operation of the internal accounting control system to the board of directors, the audit committee, and the general meeting of shareholders. The audit committee, in turn, evaluates the system and reports its findings to the board. We have also established an Internal Control Team to oversee the operation of the internal accounting control system. This team ensures that changes in the business environment and

Implementing Change Management	· Check and reflect changes in management environment and business processes · Improve control activities and change management identified as deficiencies in the previous year.	· Tracking and tracing (WTT)
Design test	· Design evaluation by external auditor	· Report design test results and make improvements
Operation test	· Evaluate operation status · Identify and improve operational defects	· Form operational TF and train control activity departments · Operation test by external auditor
Internal Control System audit and reporting	· Audit on design test and operation test by external auditor (EY Hanyoung) · Internal control system evaluation reported to BOD by Audit Committee · Evaluation on operation status reported to AGM, BOD and Audit Committee by CEO	

work processes are continuously reflected in the system. Any deficiencies identified during design or operational evaluations are addressed through collaboration between the Internal Control Team and the relevant departments.

Continuous Monitoring System

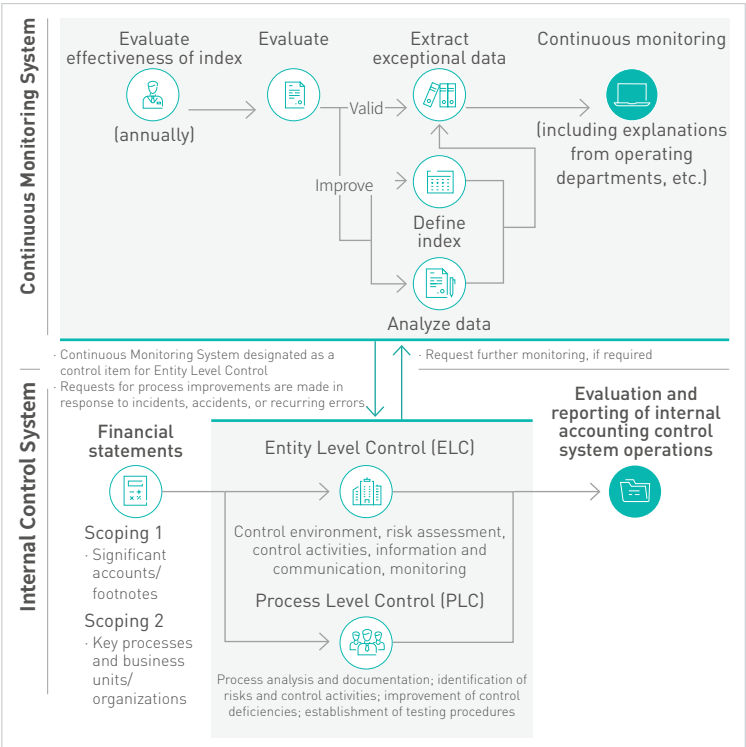
Recognizing that all corporate activities, including sales, purchases, and financing, are carried out through computerized systems, we operate an ongoing monitoring system. Compliance scenarios are registered in the system, and whenever anomalies occur outside these scenarios, an automatic notification is sent to the Audit Division. Through this system, the Audit Division can immediately detect anomalies and ensure the continuous effectiveness of control measures both before and after audit activities. To ensure that ongoing monitoring does not hinder business operations, operating departments are given the opportunity to explain anomalies.

The ongoing monitoring system is operated in conjunction with the internal control system and is classified as an entity-level control (ELC) activity. The scenarios used as criteria for extracting exceptions are defined by incorporating process-level control (PLC) risk control matrices (RCM), findings from internal accounting audits, and relevant social issues.

We will continue to develop new scenarios in line with changes in the business environment. To improve efficiency, scenario thresholds and monitoring cycles will be adjusted, and low-risk scenarios will be reviewed and eliminated. Recurring items may also be transferred to PLC. Over the medium to long term, we are reviewing the application of the ongoing monitoring system to domestic affiliates.

Continuous Monitoring System Operation Result in 2024

Business area	Major items	Number of Scenarios	Number of Requests		
			2024	2023	2022
Sales	Return price monitoring, commission adequacy, sales price revisions, etc.	27	16	3	1
Purchases	Purchase price review, unprocessed liquidated damages, irregularities in quotation proposals, etc.	25	30	40	34
Inventory and cost	Inventory increase checks, etc.	4	1	1	0
General administration	Accounting voucher approval review, CMS access rights, etc.	7	1	1	2
Fixed assets	Bid-related process review, etc.	6	0	1	3
General expenses	Corporate card usage review, etc.	10	3	9	10
Total		79	51	55	50



G3

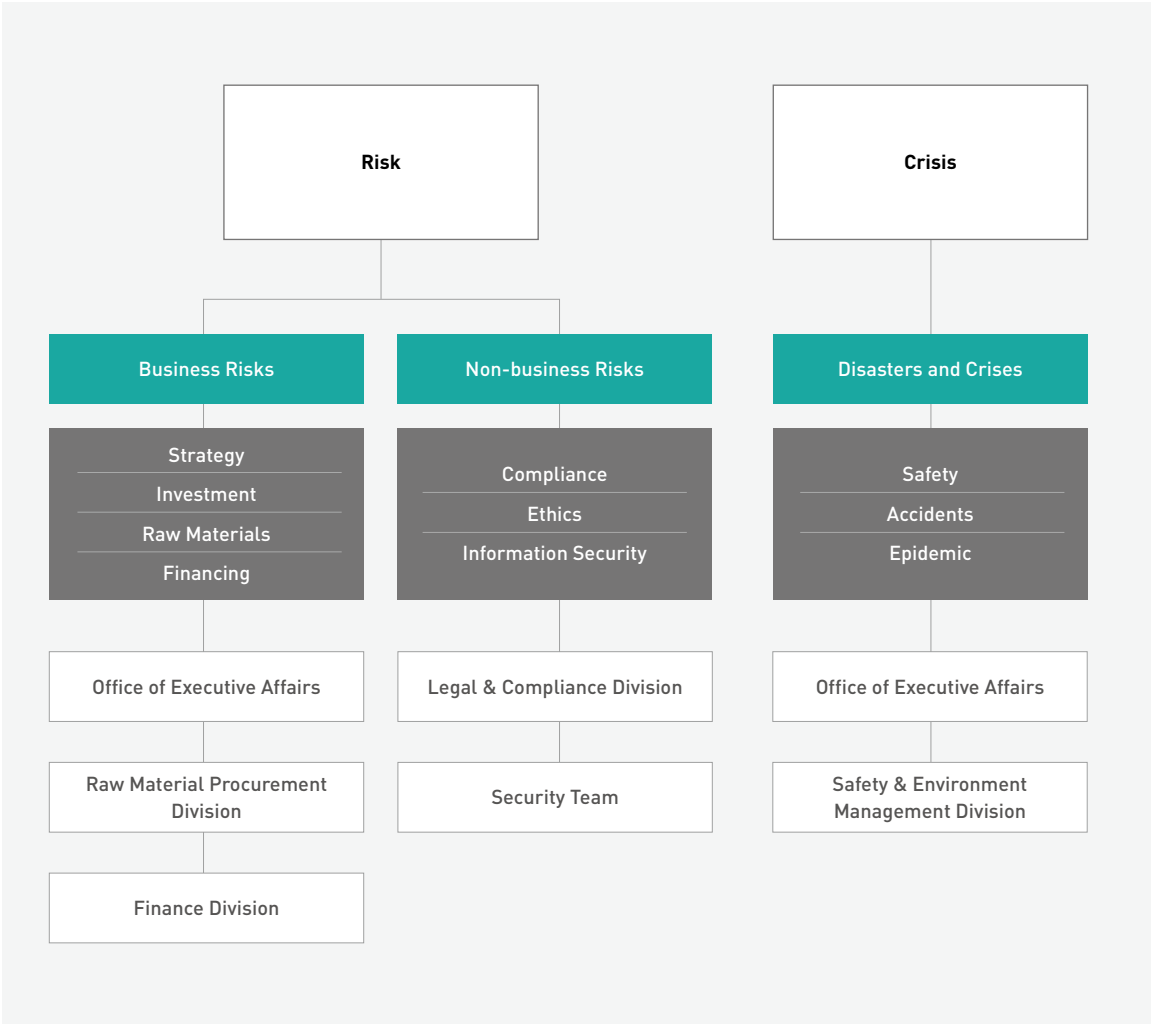
Enterprise Risk Management

Risk Reporting and Management Framework

Poongsan’s risk management framework is designed so that the responsible departments manage risks specific to their areas. We categorize risks into “business risks,” “non-business risks,” and “disasters and crises.” The Office of Executive Affairs manages risks related to strategy, competitors, investment, and overseas operations. The Raw Material Procurement Division addresses raw material and exchange rate risks, while the Finance Division oversees financial risks such as liquidity. The Internal Control Team designs and operates the internal accounting control system to provide reasonable assurance that our financial statements are prepared in accordance with accounting standards. Non-business risks such as ethics, compliance, and reputation are managed under a self-regulatory prevention system led by the Legal & Compliance Division. For disaster and crisis situations, the Safety, Health & Environment Office, established in 2021, leads efforts to ensure healthy and safe operations with zero accidents and zero disasters.

Monitoring External Economic Risks

As a non-ferrous metals company highly sensitive to fluctuations in domestic and global economic conditions and raw material markets, we operate a system led by the Risk Management Team to regularly analyze and forecast major risk factors. The team monitors LME prices and exchange rates on a daily basis and conducts related analysis and forecasting. The results are shared with key business units through monthly risk management meetings with the participation of relevant departments, including export teams. In addition, we hold quarterly hedge operations meetings attended by the CEO to report on our risk response outcomes, develop response plans based on risk analysis and forecasts, and obtain approval. To further strengthen our ability to respond to business risks, we have undertaken efforts such as convening a monthly Futures Committee attended by the CEO, senior executives, and external experts to monitor global economic trends, metal and exchange rate outlooks, and demand forecasts in our downstream industries.



63 Enterprise Risk Management

Risk Management Strategy

The following is a summary of Poongsan’s enterprise-level risks and associated countermeasures.

Risk Type		Description	Responsible Departments	Response Measures	
Financial Risks	Strategy and investment	Management risks arising from internal and external environmental changes and investments	Office of Executive Affairs (Planning Team 1 and 2)	Reporting on performance against plans and analysis of external impacts	Reviewing the appropriateness of investments through the investment deliberation process
	Raw materials and foreign exchange	Risks from volatility in financial markets (e.g., exchange rates) and raw material prices (e.g., LME)	Raw Material Procurement Division (Risk Management Team)	Reporting and discussion of issues in weekly and monthly management meetings	
				Ongoing monitoring of raw material and foreign exchange markets	Using futures trading to manage risks from raw material price fluctuations and to secure target profits against exchange rate volatility
				Hedging risks through derivatives such as non-ferrous metals futures and currency forward contracts	Sharing daily market information with relevant departments
	Credit	Credit risks from delayed collection of trade receivables	Sales Support Team	Frequent monitoring and reporting on raw material and foreign exchange market trends, including LME prices	Reporting quarterly market trends and forecasts to the CEO and management
	Financing (liquidity)	Risks of failing to meet obligations on financial liabilities	Finance Division (Finance Team)	Periodic customer credit evaluations to adjust credit limits and collateral requirements	Providing monthly reports on delayed receivables and recovery measures
Non-financial Risks	Tax	Tax-related risks across business operations	Finance Division (Cost Analysis & Tax Team)	Entering into agreements with primary banks on overdrafts and import credit facilities	Matching funding periods for facility investments through the use of retained earnings and long-term borrowing
	Compliance and ethics	Legal and reputational risks resulting from unethical or unlawful conduct	Legal & Compliance Division / Internal Control Team	Extending the funding maturity profile and strengthening credit ratings	Ensuring compliance with the arm’s-length principle in transfer pricing for international transactions
				Operating a Fair Trade Compliance Program	Operating the internal accounting control system
	Safety	Safety risks in the workplace	Safety & Environment Management Division	Enhancing employees’ ethical awareness by ensuring compliance with the Code of Ethics and providing related training	Operating the cyber reporting channel
				Monitoring workplace safety and managing accident response processes	Raising employee safety awareness through safety training and education
	Environment	Reputational and regulatory risks driven by increasing social concern for sustainability and stricter environmental regulations	Safety & Environment Management Division	Ensuring compliance with environmental regulations and conducting related training	Establishing an environmental management policy
		Risks associated with responding to climate change		Managing risks associated with environmental pollution regulations	
	Information security	Risks of information and technology leakage	Security Team	Conducting cybersecurity drills to prevent attacks	Conducting training on defense industry technology protection
	Human rights	Reputational and legal risks arising from gender discrimination, workplace harassment, and other labor-related issues	Legal & Compliance Division / Human Resources Team	Operating the cyber grievance center	Conducting training on defense industry technology protection
				Operating the cyber grievance center	Appointing and managing grievance counselors for sexual harassment, sexual violence, and workplace bullying

G4

Tax Management

Tax Management Policy

We comply with all applicable tax laws and regulations in the countries where we operate. The timely and accurate fulfillment of tax filing and payment obligations is a core principle of our tax management.

To this end, we work transparently with tax authorities in each jurisdiction and responsibly meet our taxpayer obligations, such as submitting information required by law. In addition, we have established and operate tax accounting standards to manage potential tax risks, while ensuring transparency in our tax disclosures.

Tax Risk Management

We manage tax risks by complying strictly with applicable laws and regulations. We work transparently with tax authorities and provide supporting documentation upon request, which helps enhance credibility. We also prohibit the use of tax avoidance schemes that lack commercial substance, as well as the use of tax haven jurisdictions, and we do not transfer profits to low-tax jurisdictions. Domestic transactions with third parties and related parties are conducted on fair terms in accordance with applicable laws. For international transactions, transfer pricing is applied in line with the arm’s-length principle to prevent international tax risks.

Tax Principles	Tax Accounting Standards	Tax Transparency
· We recognize that compliance with tax laws and the management of tax risks are integral to sound business management. · All tax filing and payment obligations are carried out in accordance with the laws and regulations of the countries where we operate. · Transactions with related parties are conducted in line with the arm’s-length principle, ensuring transfer pricing that reflects fair market values.	· Tax filings, supporting documents, and decision-making records on tax issues are documented and retained. · Changes in tax laws, new rulings, and court decisions are closely monitored, and potential risks are reviewed in advance to ensure timely response. · For complex issues, input from external tax experts is taken into account before making final decisions.	· Tax information is disclosed transparently through audit reports filed on the Financial Supervisory Service’s electronic disclosure system (dart.fss.or.kr). · The financial statements and notes in the external auditor’s report provide information on corporate income tax calculation methods, deferred tax assets and liabilities, the composition of tax expenses, and applicable tax rates, thereby ensuring transparency and objectivity through external audit. · In line with the OECD/G20 Base Erosion and Profit Shifting (BEPS) guidelines and the Act on the Adjustment of International Taxes, a Country-by-Country Report is prepared and submitted to tax authorities, covering business activities and related-party transactions.

Regional Corporate Income Tax Status (2024)Unit: KRW million

Region	Business Site	Main Products	Sales Revenue*	Operating Profit*	Corporate Income Tax*
Korea	Poongsan	Copper and copper alloy sheets/strips, copper pipes, rods, coin blanks, military and sporting ammunition	3,502,597	314,066	81,974
	FNS	Precision machinery components	40,226	6,117	1,123
Americas	PMX	Copper and copper alloy sheets/strips	710,602	(10,434)	(2,628)
	PAC	Scrap, other raw materials, auxiliary materials, Poongsan products	423,771	6,933	(202)
Asia	Thailand	Copper and copper alloy sheets/strips and coin blanks	317,593	5,825	1,232
	Hong Kong/ Shenzhen	Copper and copper alloy products (Slitting Center)	107,823	1,279	83
	Shanghai	Copper and copper alloy products (Trading subsidiary)	142,056	1,018	207
	Lianyungang	Copper and copper alloy products (Slitting Center)	115,474	1,486	93
	Japan	Copper and copper alloy products (Slitting Center)	145,502	2,350	554
	Malaysia	Copper and copper alloy products (Slitting Center)	78,693	1,502	310
	Vietnam	Processing and sales of copper and copper alloy sheets/strips and rods	-	(225)	-

* Figures do not reflect consolidation adjustments.

G5

Sustainable Innovation and Technology

UN SDGs

6

7

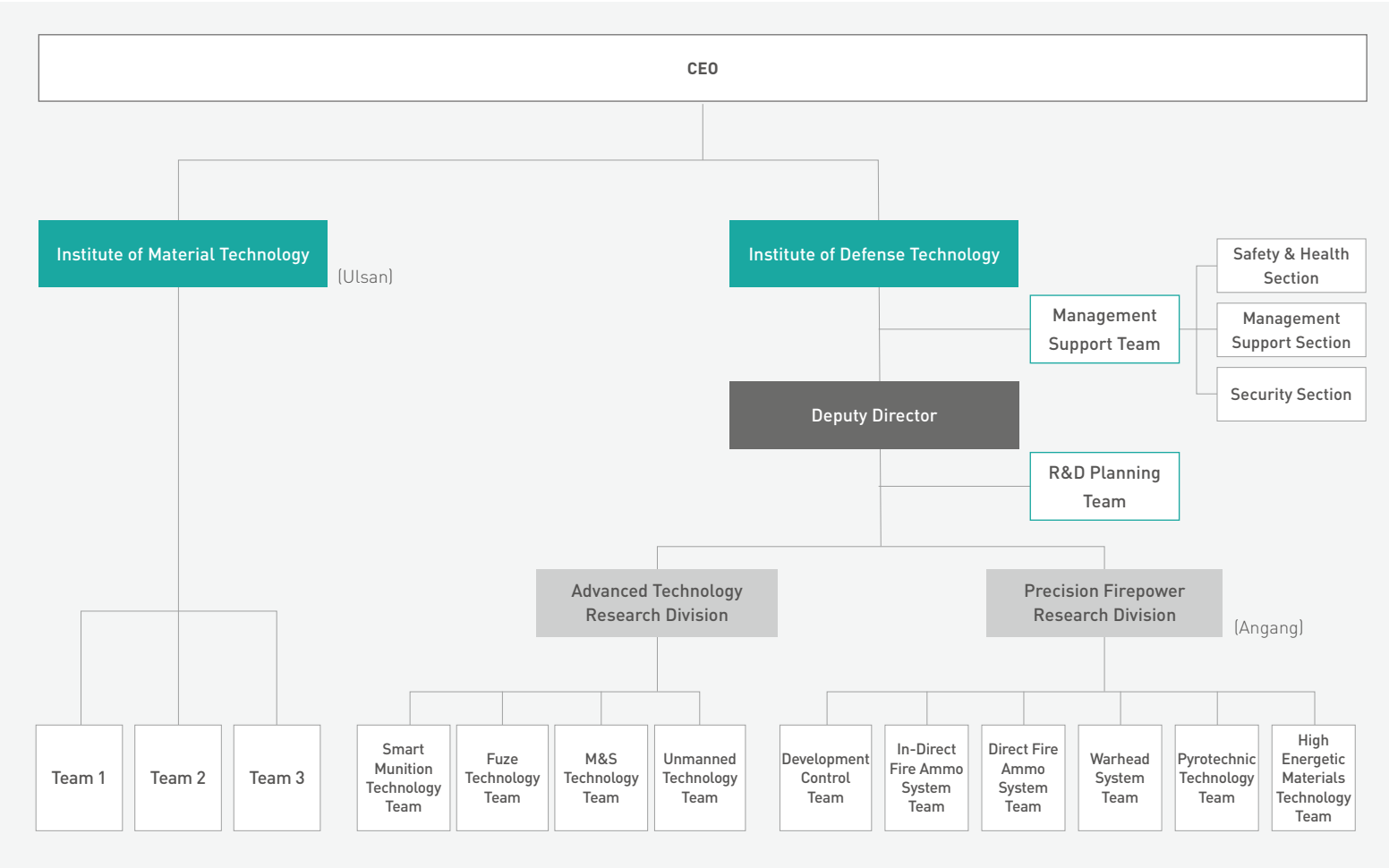
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Appendix Governance Performance

R&D Governance



R&D Strategy

In June 2011, we established the Institute of Defense Technology in Daejeon Technovalley as a comprehensive research center for defense and nonferrous metals. It has since served as a base for developing future innovation. In 2014, the new materials division was relocated to Ulsan to strengthen development capabilities and has been operated separately. Research institutes for the civilian and defense sectors now focus their specialized R&D capacities on developing new growth opportunities.

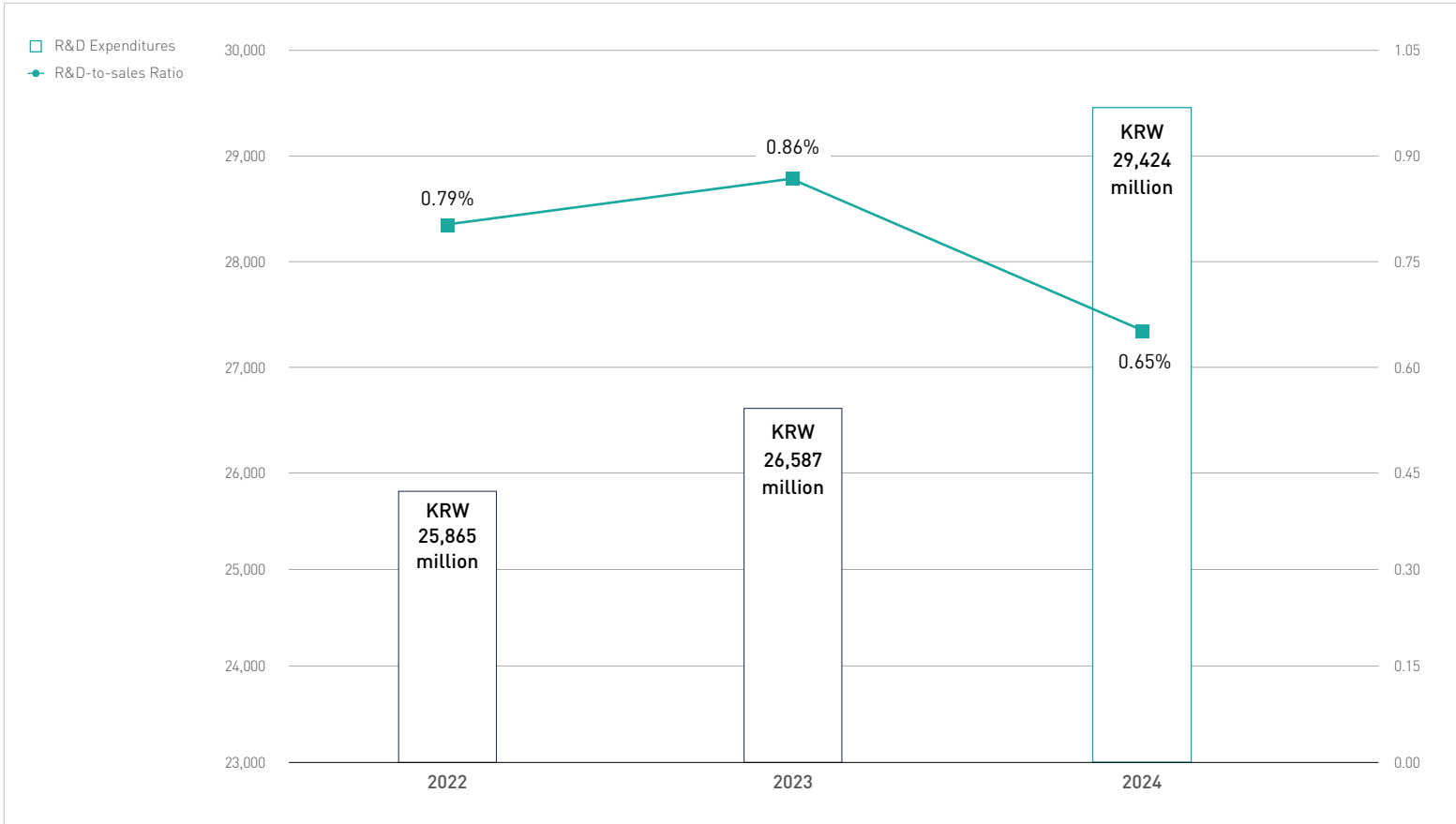
The Institute of Defense Technology conducts research and development on high-performance, high-strength copper alloys tailored to the requirements of electronic component manufacturers. It also focuses on developing application components and eco-friendly, resource recycling materials applicable to industries such as nuclear power, energy, and next-generation lighting.

We have successfully developed and supplied advanced copper alloy materials for key components in PDPs, LCDs, LEDs, semiconductors, and electronics, along with automotive materials, coin blanks, ultra-precision molds, eco-friendly materials safe for human use, and nuclear power plant components. Through these achievements, we have led the advancement of Korea's new materials industry and contributed to strengthening the nation's competitiveness.

In the defense sector, we have succeeded in developing high-performance, precision-guided, multipurpose, and sustainable ammunition for the armed forces. We have also recently completed the development of ammunition for advanced weapon systems and are moving forward with mass production. Looking ahead, our focus is on refining manufacturing technologies for advanced materials and defense products, and on strengthening R&D capabilities through the Institute of Defense Technology. These efforts aim to position us as a global company with industry-leading technological competitiveness.

65 Sustainable Innovation and Technology

R&D Expenses



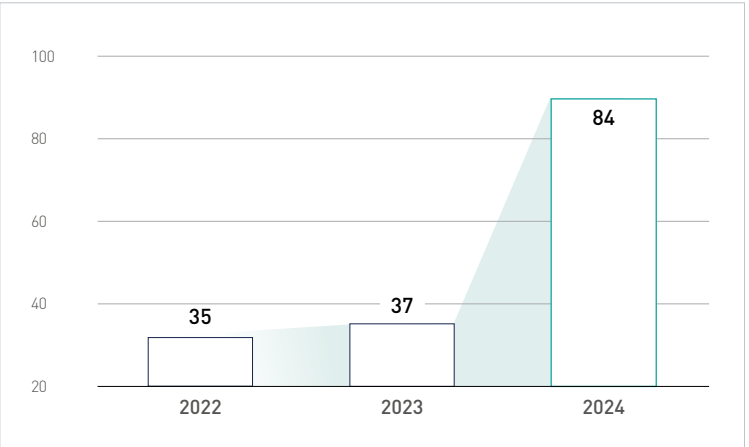
Investment Review Committee

We operate an Investment Review Committee to evaluate the feasibility of major facility investments. The committee is chaired by the CEO and determines the suitability of proposed projects through a structured review process. Projects deemed suitable by the committee are carried out and followed up by the respective departments.

As part of our ESG management, we categorize investment projects under review into safety, environment, energy, and other areas, ensuring that non-financial ESG impacts are incorporated into the evaluation process. Based on this process, investment decisions are made. In 2024, approximately KRW 8.4 billion was allocated to investments in safety, environment, and energy.

Investments in Safety, Environment, and Energy

Unit: KRW 100 million



G6

Stakeholder Communication

UN SDGs

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Appendix Governance Performance

Stakeholders	Customers	Employees	Suppliers	Shareholders/Investors
Communication Channels	Customer Satisfaction Surveys Website Site Tour Programs	Labor-management Council Business Overview Booklet Organizational Culture Improvement Activities and Programs	Supplier Satisfaction Surveys Supplier Meetings Cyber Grievance Center	Corporate Disclosures General Shareholders' Meeting Regular IR Sessions
Key activities	Conducting annual customer satisfaction surveys Operating customer service centers to handle inquiries on products, materials and equipment, management, and raw material sales Conducting site visits and production line tours for customers	Holding quarterly labor-management council meetings Distributing an annual business overview booklet in comic format Offering programs such as Sopung+, P-VENT, Cross Lunch, and After-work Cultural Walk	Conducting annual surveys on overall supplier satisfaction and areas for improvement Providing ongoing guidance on new supplier support programs and receiving suggestions or concerns from suppliers Handling grievances through the cyber grievance center	Publishing periodic disclosures Implementing electronic voting and proxy systems Hosting quarterly IR sessions

Appendix

Financial Information	63
Separate Financial Statements Basis	63
Consolidated Financial Statements Basis	64
 Non-financial Information	 65
Environmental	65
Social	71
Governance and Economy	75
 Association Memberships	 77
Major Certifications Obtained	78
GRI Index	79
SASB Index	82
UN SDGs-aligned Activities	83
GHG Emissions Verification Statement	84
Independent Assurance Report	85



Financial Information

Separate Financial Statements Basis

Condensed Separate Statement of Financial Position

Category	Unit	2024	2023	2022
Current assets	million KRW	1,884,996	1,701,254	1,497,727
Non-current assets	million KRW	1,742,474	1,614,948	1,562,951
Total assets	million KRW	3,627,470	3,316,202	3,060,678
Current liabilities	million KRW	1,017,665	1,115,083	886,851
Non-current liabilities	million KRW	410,503	235,164	333,828
Total liabilities	million KRW	1,428,168	1,350,247	1,220,679
Capital stock, capital surplus	million KRW	634,641	634,641	634,641
Other equity items, retained earnings	million KRW	1,564,661	1,331,314	1,205,358
Total equity	million KRW	2,199,302	1,965,955	1,839,999

Condensed Separate Statement of Comprehensive Income

Category	Unit	2024	2023	2022
Sales revenue	million KRW	3,502,597	3,100,555	3,257,164
Cost of sales	million KRW	3,000,651	2,769,616	2,901,428
Gross profit	million KRW	501,946	330,939	355,736
SG&A expenses	million KRW	187,880	140,629	152,568
Operating profit	million KRW	314,066	190,310	203,168
Non-operating income	million KRW	3,468	962	17,250
Profit before income tax	million KRW	317,534	191,272	220,418
Income tax expense	million KRW	81,974	34,967	45,033
Net income	million KRW	235,560	156,305	175,385
Other comprehensive income after tax	million KRW	30,565	[3,035]	31,608
Total comprehensive income	million KRW	266,125	153,270	206,993

Distribution of Economic Value

Category	Unit	2024	2023	2022	Remarks
Dividends	million KRW	71,017	32,777	27,314	Annual dividends
Interest expenses	million KRW	19,328	22,722	22,296	Statement of comprehensive income → Financial costs → Interest expenses
Employee wages and benefits	million KRW	285,642	260,332	249,578	Notes to the financial statements → Breakdown of expenses by nature → Wages
Raw material costs	million KRW	2,417,544	2,229,366	2,346,238	Notes to the financial statements → Breakdown of expenses by nature → Consumption of raw materials and purchases of goods, etc.
Corporate tax	million KRW	81,974	34,967	45,033	Statement of comprehensive income → Income tax expense
Donations	million KRW	6,980	4,760	3,847	Statement of comprehensive income → Donations

Financial Information

Consolidated Financial Statements Basis

Consolidated Financial Statements Basis

Category	Unit	2024	2023	2022
Current assets	million KRW	2,561,697	2,239,437	2,013,246
Non-current assets	million KRW	1,534,885	1,421,191	1,382,051
Total assets	million KRW	4,096,582	3,660,628	3,395,297
Current liabilities	million KRW	1,358,506	1,352,196	1,117,974
Non-current liabilities	million KRW	538,774	342,478	435,083
Total liabilities	million KRW	1,897,280	1,694,674	1,553,057
Capital stock, capital surplus	million KRW	634,641	634,641	634,641
Other equity items, retained earnings	million KRW	1,564,661	1,331,313	1,207,599
Total equity	million KRW	2,199,302	1,965,954	1,842,240

Condensed Consolidated Statement of Comprehensive Income

Category	Unit	2024	2023	2022
Sales revenue	million KRW	4,554,411	4,125,264	4,372,983
Cost of sales	million KRW	3,938,497	3,684,408	3,911,020
Gross profit	million KRW	615,914	440,856	461,963
SG&A expenses	million KRW	292,146	212,219	230,343
Operating profit	million KRW	323,768	228,637	231,620
Non-operating loss	million KRW	[5,463]	[27,551]	[11,862]
Profit before income tax	million KRW	318,305	201,086	219,758
Income tax expense	million KRW	82,260	44,646	44,496
Net income	million KRW	236,045	156,440	175,262
Other comprehensive income after tax	million KRW	30,079	[3,289]	33,288
Total comprehensive income	million KRW	266,124	153,151	208,550

Distribution of Economic Value

Category	Unit	2024	2023	2022	Remarks
Dividends	million KRW	71,017	32,777	27,314	Annual dividends
Interest expenses	million KRW	37,445	39,193	32,465	Statement of comprehensive income → Financial costs → Interest expenses
Employee wages and benefits	million KRW	416,497	353,262	339,213	Notes to the financial statements → Breakdown of expenses by nature → Wages
Raw material costs	million KRW	3,151,700	2,959,046	3,096,947	Notes to the financial statements → Breakdown of expenses by nature → Consumption of raw materials and purchases of goods, etc.
Corporate tax	million KRW	82,260	44,646	44,496	Statement of comprehensive income → Income tax expense
Donations	million KRW	7,289	5,051	4,133	Statement of comprehensive income → Donations

Non-financial Information

Environmental

Greenhouse Gas Emissions

Category	Unit	2024	2023	2022
Total greenhouse gas emissions (①+②) ¹⁾	tCO ₂ eq	239,469	223,416	227,178
① Direct greenhouse gas emissions (Scope 1)	tCO ₂ eq	63,314	60,254	61,664
Copper and copper alloy	tCO ₂ eq	32,249	31,575	33,071
Defense	tCO ₂ eq	30,653	28,262	28,249
Others	tCO ₂ eq	412	417	343
② Indirect greenhouse gas emissions (Scope 2)	tCO ₂ eq	176,157	163,165	165,516
Copper and copper alloy	tCO ₂ eq	117,107	111,010	117,105
Defense	tCO ₂ eq	56,605	50,265	46,698
Others	tCO ₂ eq	1,846	1,890	1,713
Greenhouse gas intensity ^{2) 3)}	tCO ₂ eq/KRW billion	68.37	72.06	69.75
Copper and copper alloy	tCO ₂ eq/KRW billion	64.53	67.83	63.93
Defense	tCO ₂ eq/KRW billion	74.00	79.35	83.20

1) In the process of calculating the 2024 emissions allowances, objections were raised regarding the baseline emissions of certain sites. The final results will be reflected in this report or disclosed separately once confirmed.

2) Greenhouse gas intensity = Greenhouse gas emissions / Sales revenue (unit: KRW billion)

3) Previous-year data was revised as the calculation basis for intensity was changed from cost of goods manufactured to sales revenue

Energy Use

Category	Unit	2024	2023	2022
Total energy consumption (①+②) ¹⁾	TJ	4,946	4,600	4,690
① Direct energy consumption	TJ	1,230	1,171	1,200
Copper and copper alloy	TJ	628	615	644
Defense	TJ	595	548	550
Others	TJ	8	8	6
② Indirect energy consumption	TJ	3,719	3,432	3,490
Electricity	TJ	3,622	3,350	3,407
Copper and copper alloy	TJ	2,402	2,261	2,396
Defense	TJ	1,183	1,050	976
Others	TJ	37	38	35
Steam	TJ	97	82	83
Copper and copper alloy	TJ	95	80	81
Others	TJ	2	2	2
Energy consumption intensity ^{2) 3)}	TJ/KRW billion	1.41	1.48	1.44
Direct energy consumption intensity	TJ/KRW billion	0.35	0.38	0.37
Copper and copper alloy	TJ/KRW billion	0.27	0.29	0.27
Defense	TJ/KRW billion	0.50	0.55	0.61
Indirect energy consumption intensity	TJ/KRW billion	1.06	1.11	1.07
Copper and copper alloy	TJ/KRW billion	1.08	1.11	1.05
Defense	TJ/KRW billion	1.00	1.06	1.08

1) As figures are rounded down below the decimal point by site, there may be discrepancies between category-specific usage and totals.

2) Energy intensity = Energy consumption / Sales revenue (unit: KRW billion)

3) Previous-year data was revised as the calculation basis for intensity was changed from cost of goods manufactured to sales revenue.

Environmental

Air Pollutant Emissions

Category	Unit	2024	2023	2022
Total air pollutant emissions	ton	30.089	32.264	35.655
Dust	ton	5.038	7.971	8.204
Copper and copper alloy	ton	4.750	7.062	7.773
Defense	ton	0.288	0.909	0.431
Sulfur oxides (SOx)	ton	3.593	1.450	2.368
Copper and copper alloy	ton	3.582	1.436	2.360
Defense	ton	0.011	0.014	0.008
Nitrogen oxides (NOx)	ton	21.458	22.842	25.083
Copper and copper alloy	ton	12.864	11.059	14.349
Defense	ton	8.594	11.782	10.734
Air pollutant emissions intensity ¹⁾	ton / KRW billion	0.006	0.008	0.008
Copper and copper alloy	ton / KRW billion	0.009	0.009	0.010
Defense	ton / KRW billion	0.004	0.006	0.006

1) Previous-year data was revised as the calculation basis for intensity was changed from cost of goods manufactured to sales revenue

Water Withdrawal and Reuse

Category	Unit	2024	2023	2022
① Water withdrawal	thousand tons	7,325	6,554	6,705
Ulsan Plant	thousand tons	2,107	2,081	2,217
Angang Plant ¹⁾	thousand tons	4,695	4,079	3,883
Busan Plant ¹⁾	thousand tons	498	371	587
Others	thousand tons	25	22	18
② Water discharge	thousand tons	5,954	5,254	4,914
Ulsan Plant	thousand tons	1,580	1,572	1,582
Angang Plant	thousand tons	4,018	3,383	2,981
Busan Plant	thousand tons	356	299	351
Others	thousand tons	-	-	-
③ Water reuse	thousand tons	77	110	139
Ulsan Plant	thousand tons	77	110	139
Angang Plant	thousand tons	-	-	-
Busan Plant	thousand tons	-	-	-
Others	thousand tons	-	-	-

1) Previous-year data was revised due to changes in the aggregation method for water withdrawal

Environmental

Air Pollutant Emissions

Category	Unit	2024	2023	2022
Total water withdrawal (①+③)	thousand tons	7,402	6,654	6,844
Ulsan Plant	thousand tons	2,184	2,191	2,356
Angang Plant	thousand tons	4,695	4,070	3,883
Busan Plant	thousand tons	498	371	587
Others	thousand tons	25	22	18
Water consumption (①+③-②)	thousand tons	1,448	1,400	1,930
Ulsan Plant	thousand tons	604	619	774
Angang Plant	thousand tons	677	687	902
Busan Plant	thousand tons	142	72	236
Others	thousand tons	25	22	18
Water consumption (①-②)	thousand tons	1,371	1,290	1,791
Ulsan Plant	thousand tons	527	509	635
Angang Plant	thousand tons	677	687	902
Busan Plant	thousand tons	142	72	236
Others	thousand tons	25	22	18
Water use intensity ²⁾	thousand tons / KRW billion	1.58	1.63	1.65

2) Previous-year data was revised as the calculation basis for intensity was changed from cost of goods manufactured to sales revenue.

Water Pollutant Emissions

Category	Unit	2024	2023	2022
Total water pollutant emissions	ton	154.362	170.965	155.755
Biochemical oxygen demand (BOD)	ton	46.85	48.82	28.198
Copper and copper alloy	ton	41.198	42.66	24.119
Defense	ton	5.652	6.16	4.079
Total organic carbon (TOC)	ton	63.439	74.307	84.286
Copper and copper alloy	ton	38.827	47.067	63.657
Defense	ton	24.612	27.24	20.629
Suspended solids (SS)	ton	16.785	24.678	20.337
Copper and copper alloy	ton	5.611	12.238	10.359
Defense	ton	11.174	12.44	9.978
Total nitrogen (T-N)	ton	24.66	20.104	19.799
Copper and copper alloy	ton	3.45	3.354	3.657
Defense	ton	21.21	16.75	16.142
Total phosphorus (T-P)	ton	2.628	3.056	3.135
Copper and copper alloy	ton	0.028	0.036	0.076
Defense	ton	2.6	3.02	3.059

1) The Busan Plant in the Defense Sector deferred TOC measurement in 2022 and instead measured COD. Accordingly, the result was not included in the disclosed 2022 TOC figure for the Defense Sector. Meanwhile, the Busan Plant's COD measurement for 2022 was 6.77 tons.

Environmental

By-product Generation

Category	Unit	2024	2023	2022
Slag	thousand tons	1.031	1.402	1.480
Ulsan Plant	thousand tons	1.031	1.402	1.480
Angang Plant	thousand tons	-	-	-
Busan Plant	thousand tons	-	-	-
Dust	thousand tons	0.412	0.325	0.352
Ulsan Plant	thousand tons	0.411	0.325	0.352
Angang Plant	thousand tons	0.001	-	-
Busan Plant	thousand tons	-	-	-
Waste refractories	thousand tons	0.979	1.159	0.799
Ulsan Plant	thousand tons	0.931	1.122	0.773
Angang Plant	thousand tons	0.048	0.037	0.026
Busan Plant	thousand tons	-	-	-
Sludge	thousand tons	6.906	6.897	7.014
Ulsan Plant	thousand tons	4.031	4.182	4.254
Angang Plant	thousand tons	2.699	2.573	2.559
Busan Plant	thousand tons	0.176	0.142	0.201

Waste Treated

Category	Unit	2024	2023	2022
Landfill	thousand tons	3.12	2.95	2.96
General waste	thousand tons	3.07	2.84	2.88
Ulsan Plant	thousand tons	-	-	-
Angang Plant	thousand tons	2.87	2.68	2.67
Busan Plant	thousand tons	0.20	0.16	0.21

Waste Treated

Category	Unit	2024	2023	2022
Designated waste	thousand tons	0.05	0.11	0.08
Ulsan Plant	thousand tons	0.01	0.02	0.02
Angang Plant	thousand tons	0.03	0.03	0.04
Busan Plant	thousand tons	0.01	0.06	0.02
Incineration	thousand tons	1.04	1.03	0.98
General waste	thousand tons	0.28	0.33	0.29
Ulsan Plant	thousand tons	0.19	0.18	0.17
Angang Plant	thousand tons	0.07	0.08	0.08
Busan Plant	thousand tons	-	-	-
Others	thousand tons	0.02	0.07	0.05
Designated waste	thousand tons	0.76	0.70	0.69
Ulsan Plant	thousand tons	0.16	0.15	0.14
Angang Plant	thousand tons	0.58	0.54	0.54
Busan Plant	thousand tons	0.02	0.01	0.02
Others	thousand tons	8.20	4.40	3.33
General waste	thousand tons	0.87	1.54	0.42
Ulsan Plant	thousand tons	0.87	1.54	0.42
Angang Plant	thousand tons	-	-	-
Busan Plant	thousand tons	-	-	-
Designated waste	thousand tons	2.31	2.00	1.84
Ulsan Plant	thousand tons	0.05	0.11	0.16
Angang Plant	thousand tons	2.26	1.89	1.68
Busan Plant	thousand tons	-	-	-

Environmental

Waste Treated					Waste Generation and Recycling				
Category	Unit	2024	2023	2022	Category	Unit	2024	2023	2022
Construction waste	thousand tons	5.02	0.86	1.07	Total recycled waste	ton	28,306	28,634	27,074
Ulsan Plant	thousand tons	-	-	-	Ulsan Plant	ton	12,209	12,063	11,678
Angang Plant	thousand tons	4.97	0.82	1.00	Angang Plant	ton	15,818	16,366	15,137
Busan Plant	thousand tons	0.05	0.04	0.07	Busan Plant	ton	255	205	246
Total waste treated	thousand tons	12.36	8.39	7.27	Head office	ton	24	-	13
					Recycling rate	%	70	77	79
Waste Generation and Recycling					Hazardous Chemical Use and Emissions				
Category	Unit	2024	2023	2022	Category	Unit	2024	2023	2022
Total waste generated	ton	40,664	37,034	34,341	Chemical emissions	ton	31.981	30,236	29,974
General waste	ton	29,151	29,982	27,994	Copper and copper alloy	ton	0.053	0.034	0.502
Ulsan Plant	ton	10,756	11,328	9,934	Defense	ton	31.928	30.202	29,472
Angang Plant	ton	17,928	18,217	17,571	Hazardous chemical use	ton	6,051	6,017	5,744
Busan Plant	ton	423	349	428	Copper and copper alloy	ton	2,775	2,866	2,578
Head office	ton	46	87	60	Defense	ton	3,276	3,151	3,049
Designated waste	ton	6,491	6,189	5,282					
Ulsan Plant	ton	2,726	2,726	2,647					
Angang Plant	ton	3,706	3,370	2,568					
Busan Plant	ton	59	93	67					
Construction waste	ton	5,022	863	1,066					
Ulsan Plant	ton	-	-	-					
Angang Plant	ton	4,967	819	1,000					
Busan Plant	ton	54	45	66					

Environmental

Environmental Compliance Violations

Category	Unit	2024	2023	2022
Number of environmental compliance violations	cases	-	-	1
Amount of environmental fines	KRW 100 million	-	-	-

Eco-friendly Product Purchases and Sales

Category	Unit	2024	2023	2022
Eco-friendly product sales	KRW million	925	1,047	1,431
Copper and copper alloy	KRW million	925	1,047	1,431
Purchases of eco-certified products	KRW million	15.26	18.89	12.45

Environmental Investment

Category	Unit	2024	2023	2022
Total environmental investment	KRW 100 million	163	124	118
Environmental operating expenses	KRW 100 million	50	87	83
Environmental capital expenditures	KRW 100 million	84	37	35

Status of Environmental Management System (ISO 14001) Certification

Category	Unit	2024	2023	2022
Sites subject to certification	sites	3	3	3
Sites certified	sites	3	3	3

Use of Recycled Raw Materials

Category	Unit	2024	2023	2022
Consumption of key raw materials	thousand tons	317	318	352
Consumption of recycled raw materials	thousand tons	215	203	214
Ratio of recycled raw materials	%	68	64	61
Ratio of recycled products	%	112	108	105

Non-financial Information

Social

Employee Status

Category		Unit	2024	2023	2022
Total number of employees		persons	3,698	3,476	3,412
Gender	Male	persons	3,497	3,282	3,215
	Female	persons	201	194	197
By job category	General research positions	persons	826	802	787
	Technical positions	persons	2,862	2,664	2,607
	Other positions	persons	10	10	18
Local hires	Male	persons	3,497	3,282	3,215
	Female	persons	201	194	197
By employment type	Regular employees	persons	2,726	2,738	2,774
	Male	persons	2,536	2,557	2,589
	Female	persons	190	181	185
	Contract employees	persons	972	738	638
	Male	persons	961	725	626
	Female	persons	11	13	12
Diversity	Employees with disabilities	persons	58	61	63
	Foreign nationals	persons	4	3	3
	National merit recipients ¹⁾	persons	143	152	147
By age group	~Under 30 years	persons	600	468	466
	31~40 years	persons	1,082	962	915
	41~50 years	persons	537	544	528
	51~54 years	persons	256	268	342
	55 years and above	persons	1,223	1,234	1,161

Category		Unit	2024	2023	2022
New hires	Total	persons	582	386	352
By gender	Male	persons	567	378	342
	Female	persons	15	8	10
By age group	~Under 30 years	persons	340	182	204
	31~40 years	persons	107	37	49
	41~50 years	persons	3	4	8
	51~54 years	persons	-	1	-
	55 years and above	persons	132	162	91
External workers	Total	persons	629	570	573
Total number of employee departures		persons	349	326	381
Voluntary departures		persons	106	63	86
Involuntary departures		persons	243	263	295
Managerial level and above	Male	persons	17	5	8
	Female	persons	1	2	1
Executive level (Director and above)	Male	persons	2	2	2
	Female	persons	-	-	-
Sales positions (revenue-generating departments)	Male	persons	6	2	2
	Female	persons	-	-	-
STEM positions	Male	persons	295	50	79
	Female	persons	9	1	4

1) Previous-year figures were revised as the basis for calculation was changed from average annual number of employees to year-end number of employees

Social

Employee Salaries

Category		Unit	2024	2023	2022
Average salary of employees		KRW million	91	90	83
Gender	Male	KRW million	91	91	84
	Female	KRW million	90	86	74
Ratio of female-to-male compensation		%	91	87	86
Ratio of salary to minimum wage*	Male	Times	2.61	2.35	2.53
	Female	Times	2.61	2.35	2.53

* Annual salary of new recruits hired through open recruitment / (12 × 209 × statutory minimum hourly wage)

Employee Retirement Pensions

Category		Unit	2024	2023	2022
Amount managed under defined contribution plan		KRW million	68,724	73,005	84,660
Number of participants in defined contribution plan		persons	542	667	778
Amount managed under defined benefit plan		KRW million	251,735	227,175	208,230
Number of participants in defined benefit plan		persons	1,963	1,958	1,938

Performance Evaluation

Category		Unit	2024	2023	2022
By evaluation method	MBO evaluation	persons	731	749	756
	Multi-rater evaluation	persons	613	629	720
	Relative evaluation	persons	2,762	2,728	2,716
By job level	Senior managers	persons	40	41	37
	Middle managers	persons	92	94	101
	Non-managerial employees	persons	3,280	3,341	3,417

Average Years of Service

Category	Unit	2024	2023	2022
Average years of service	year	14.5	16.2	17.5

Employee Training Status

Category		Unit	2024	2023	2022
Total training hours		Hours	157,529	171,936	176,840
Total training investment		KRW million	1,843	1,687	1,261
By gender	Male	Total training hours	144,656	163,110	167,239
		Number of employees	3,497	3,282	3,215
		Average training hours	41	50	52
	Female	Total training hours	12,873	8,826	9,601
		Number of employees	201	194	197
		Average training hours	64	45	49
By age group	30 and under	Total training hours	12,399	24,800	25,900
		Number of employees	600	468	466
		Average training hours	21	53	56
	31–40	Total training hours	54,188	52,442	52,167
		Number of employees	1,082	962	915
		Average training hours	50	55	57
	41–50	Total training hours	34,627	26,270	26,828
		Number of employees	537	544	528
		Average training hours	64	48	51
	51–54	Total training hours	11,701	12,228	16,384
		Number of employees	256	268	342
		Average training hours	46	46	48
	55 and above	Total training hours	44,611	56,196	55,561
		Number of employees	1,223	1,234	1,161
		Average training hours	36	46	48
By job level	Senior managers	Total training hours	2,639	2,490	2,524
		Number of employees	42	41	40
		Average training hours	63	61	63
	Middle managers	Total training hours	10,460	6,055	6,298
		Number of employees	101	94	92
		Average training hours	104	64	68
	Non-managerial employees	Total training hours	144,430	163,391	168,018
		Number of employees	3,555	3,341	3,280
		Average training hours	41	49	51

Social

Parental Leave Usage Status

Category		Unit	2024	2023	2022
Employees eligible for parental leave	Total	persons	823	796	788
	Male	persons	768	741	725
	Female	persons	55	55	63
Employees who used parental leave	Total	persons	35	37	31
	Male	persons	31	34	24
	Female	persons	4	3	7
Employees who returned from parental leave	Total ¹⁾	persons	40	37	33
	Male	persons	35	31	23
	Female	persons	5	6	10
Employees who worked for 12 months or more after returning from parental leave	Total	persons	37	32	21
	Male	persons	31	23	11
	Female	persons	6	9	10
Return-to-work rate		%	100	97	100
Retention rate		%	100	97	95
Employees working reduced hours		persons	2	1	2

1) Due to changes in the criteria for counting mid-term resignations, the 2023 figures have been revised.

Labor Union Membership Status

Category	Unit	2024	2023	2022
Union membership rate	%	95.4	95.6	96.1

Supplier ESG Assessment

Category	Unit	2024	2023	2022
Number of suppliers assessed for ESG ¹⁾	Companies	16	-	-
Suppliers identified with negative environmental/social impacts	Companies	-	-	-
Suppliers that agreed on improvement plans	Companies	-	-	-
Suppliers whose contracts were terminated	Companies	-	-	-

1) Implemented from 2024

Social Contribution Performance

Category	Unit	2024	2023	2022
Social contribution investment amount	KRW million	6,980	4,760	3,847
Volunteer input cost ¹⁾	KRW million	3.0	4.3	3.6
Employee participation amount in social contribution ²⁾	KRW million	9.3	9.6	9.7
Volunteer participation rate	%	33	28	29
Volunteer hours	Hours	154	158	132

1) Amount calculated based on volunteer hours at the head office and the average hourly wage of office/technical employees

2) Matching grant donations from head office employees

Social

Shared Growth with Suppliers

Category	Unit	2024	2023	2022
Total number of suppliers	Companies	1,569	1,431	1,299
Number of key suppliers ¹⁾	Companies	200	200	200
Total purchase amount from suppliers	KRW 100 million	5,660	5,903	5,212
Purchase amount from key suppliers ¹⁾	KRW 100 million	2,628	2,472	2,049
Purchase amount of major raw materials	KRW 100 million	19,605	17,076	20,283
Shared-growth fund support	KRW 100 million	84	50	100
Contribution to win-win cooperation foundation ²⁾	KRW 100 million	0.4	-	-

1) Based on the evaluation criteria of the Korea Commission for Corporate Partnership
2) Implemented from 2024

Customer Satisfaction

Category	Unit	2024	2023	2022
Customer satisfaction score	points [out of 100]	86.4	88.1	84.8

Industrial Accidents

Category		Unit	2024	2023	2022
Number of industrial accidents	In-house	persons	11	4	8
	Suppliers	persons	2	-	2
	Total	persons	13	4	10
Number of fatalities	In-house	persons	-	-	-
	Suppliers	persons	-	-	-
	Total	persons	-	-	-
Lost time injury frequency rate (LTIFR)	In-house	Cases per million working hours	1.31	0.51	1.05
	Suppliers	Cases per million working hours	1.68	-	1.78
Industrial accident rate ¹⁾	In-house	%	0.36	0.12	0.23
	Suppliers	%	0.33	0	0.35

Information Security

Category		Unit	2024	2023	2022
Ratio of information security investment		%	33.2	27.8	44.8
Personal data protection	Externally reported	Cases	-	-	-
Number of violations	Reported to regulatory authorities	Cases	-	-	-
	Total	Cases	-	-	-

Non-financial Information

Governance and Economy

Board of Directors Operations

Category		Unit	2024	2023	2022
Number of regular board meetings held		cases	5	5	5
Number of extraordinary board meetings held		cases	2	2	3
Total number of board meetings held		cases	7	7	8
Agenda items discussed		cases	26	22	28
Board committees	Outside Director	cases	2	-	2
	Nomination Committee				
	Audit Committee	cases	5	4	6
Number of committee meetings held	Audit Committee	%	100	100	100
	Outside Director	%	100	-	100
	Nomination Committee				
Attendance rate of outside directors					
Accounting or finance expert		persons	2	1	1

Board Compensation

Category		Unit	2024	2023	2022
Inside directors	Number of persons	persons	3	3	3
	Total amount paid	KRW million	7,683	6,748	6,073
Outside directors	Number of persons	persons	4	4	6
	Total amount paid	KRW million	378.5	341.5	320.9
Employee compensation	Median	KRW million	86.1	79.7	77.8
	Average	KRW million	91.2	90.5	83.1
CEO	Compensation	KRW million	1,470	1,259	953
Highest compensation	Amount received	KRW million	5,727	5,065	4,743

Shareholding Structure

Category	Unit	2024	2023	2022
Controlling shareholders and relatives	%	38	38	38
Registered executives	%	0.02	0.01	0.01
Affiliates	%	-	-	-

Major Association Fees Paid

Category	Unit	2024	2023	2022
Federation of Korean Industries (FKI)	KRW 100 million	5.3	3.1	2.5
Korea Employers Federation (KEF)	KRW 100 million	0.5	0.5	0.5
Chamber of Commerce	KRW 100 million	2.2	2.3	2.2

R&D Investment

Category	Unit	2024	2023	2022
Investment cost	KRW million	29,494	26,587	25,865
Investment-to-sales ratio	%	1% or less	1% or less	1% or less

Anti-corruption and Fair Competition Practices

Category	Unit	2024	2023	2022
Antitrust fines	KRW 100 million	-	-	-
Cases of corruption and bribery	cases	-	-	-

Governance and Economy

Laws and Regulations Compliance

Category	Unit	2024	2023	2022
Fines for non-compliance with laws and regulations	KRW 100 million	-	0.02	-
Cases of non-compliance with laws and regulations	cases	-	1	-

Violations of Internal Regulations and Actions Taken

Category	Unit	2024	2023	2022
Safety	cases	10	3	7
Discrimination/harassment	cases	2	3	1
Code of conduct and employment regulations	cases	6	1	-
Security	cases	1	2	1
Quality	cases	6	2	2
Verbal or physical abuse	cases	3	2	1
Bribery(Corruption), Theft	cases	-	1	-

External Audit

Category	Unit	2024	2023	2022
Audit fees paid to external auditors	KRW 100 million	5.6	7	9.7
Ratio of non-audit fees to audit fees paid to external auditors	%	86.32	27.14	9.29

Association Memberships

Federation of Korean Industries	Korea-U.S. Economic Council	Korea-Japan Economic Association	Korea America Friendship Society
Korea China Friendship Association	Korea-America Association	Institute for Global Economics	Seoul Forum for International Affairs
Korea Forum Progress	Korea Mecenat Association	AMCHAM Korea	International Management Institute
Korea Copper Industry Cooperative	Korea Nonferrous Metal Association	THE KOREA SOCIETY	Korea Listed Companies Association
Korea Personnel Improvement Association	Korea Enterprises Federation	Korea Association for Chief Financial Officers	Korea Industrial Technology Association
Korea International Trade Association	Pyeongtaek Chamber of Commerce and Industry	Daegu Chamber of Commerce and Industry	Busan Chamber of Commerce and Industry
Korea Defense Industry Association	Korea Association of Defence Industry Studies	Korea Association of Military Studies	Korea Testing Laboratory
Emergency Planning Council of MOTIE	Seoul Branch of Defense Security Council	Guns & Explosives Safety Technology Association	Korea Institute of Military Science and Technology
Korea Automobile Manufacturers Association	Korea AEO Association	Security Cooperation Committee of Seodaemun Police Station	Korea Industrial Safety Association
Korea Exchange	Seoul West Crime Victim Support Center	Korea Emissions Market Association	Korea Construction Engineers Association
Korea Electric Engineers Association	Military Operations Research Society of Korea	Military Robotics Society	Defense Breach Response Council

Major Certifications Obtained

Environmental Management Certifications

Category	2024	2023	2022
ISO 14001	Maintained	Maintained	Maintained
Green Company (Ulsan Plant)	Maintained	Maintained	Maintained



Occupational Health & Safety Management Certifications

Category	2024	2023	2022
ISO 45001	Maintained	Maintained	Maintained
KOSHA-MS (Angang Plant)	Certified		



Information Security Management Certifications

Category	2024	2023	2022
ISO 27001 (Angang Plant)	Maintained	Maintained	Maintained



Quality Management Certifications

Category	2024	2023	2022
ISO 9001	Maintained	Maintained	Maintained
AS9100 (Angang Plant)	Maintained	Maintained	Maintained
IATF 16949 (Ulsan & Angang Plants)	Maintained	Maintained	Maintained
Defense Quality Management System (Angang & Busan Plants)	Maintained	Maintained	Maintained



GRI Index

GRI 2: General Disclosure

Topic	Disclosure No.	Reported items	Reporting pages	Remarks
The organization and its reporting practices	2-1	Organizational details	6	
	2-2	Entities included in the organization's sustainability reporting	2	
	2-3	Reporting period, frequency and contact point	2	
	2-4	Restatements of information	-	Specified separately
	2-5	External assurance	85-87	
Activities and workers	2-6	Activities, value chain and other business relationships	3-14	
	2-7	Employees	72	
	2-8	Workers who are not employees	71	
Governance	2-9	Governance structure and composition	49	
	2-10	Nomination and selection of the highest governance body	49	
	2-11	Chair of the highest governance body	49	
	2-12	Role of the highest governance body in overseeing the management of impacts	49	
	2-13	Delegation of responsibility for managing impacts	49	
	2-14	Role of the highest governance body in sustainability reporting	49	
	2-15	Conflicts of interest	50	
	2-16	Communication of critical concerns	49	
	2-17	Collective knowledge of the highest governance body	50	
	2-18	Evaluation of the performance of the highest governance body	50	
	2-19	Remuneration policies	50	
	2-20	Process to determine remuneration	50	
	2-21	Annual total compensation ratio	-	Annual Report

GRI 2: General Disclosure

Topic	Disclosure No.	Reported items	Reporting pages	Remarks
Strategy, policies and practices	2-22	Statement on sustainable development strategy	3	
	2-23	Policy commitments	22, 23, 53	
	2-24	Embedding policy commitments	22, 23, 53	
	2-25	Processes to remediate negative impacts	54, 61	
	2-26	Mechanisms for seeking advice and raising concerns	43, 53, 61	
	2-27	Compliance with laws and regulations	70, 76	
	2-28	Membership associations	77	
	2-29	Approach to stakeholder engagement	61	
Stakeholder engagement	2-30	Collective bargaining agreements	43, 73	

GRI 3: Material Topics

Topic	Disclosure No.	Reported items	Reporting pages	Remarks
Material Topics	3-1	Process to determine material topics	16, 17	
	3-2	List of material topics	17	
	3-3	Management of material topics	17	

GRI 200: Economic Performance

Topic	Disclosure No.	Reported items	Reporting pages	Remarks
Economic Performance	201-1	Direct economic value generated and distributed	63, 64	
	201-2	Financial implications and other risks and opportunities due to climate change	24, 25	
	201-3	Defined benefit plan obligations and other retirement plans	72	

GRI Index

GRI 200: Economic Performance

Topic	Disclosure No.	Reported items	Reporting pages	Remarks
Market Presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	72	
Indirect Economic Impacts	203-1	Infrastructure investments and services supported	73	
	203-2	Significant indirect economic impacts	73	
Procurement Practices	204-1	Proportion of spending on local suppliers	-	Not managed
Anti-Corruption	205-1	Operations assessed for risks related to corruption	-	Not managed
	205-2	Communication and training about anti-corruption policies and procedures	-	Not managed
	205-3	Confirmed incidents of corruption and actions taken	75	
Anti-Competitive Behavior	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	-	Not managed
Tax	207-1	Approach to tax	58	
	207-2	Tax governance, control, and risk management	58	
	207-3	Stakeholder engagement and management of concerns related to tax	58	
	207-4	Country-by-country reporting	58	

GRI 300: Environmental Performance

Topic	Disclosure No.	Reported items	Reporting pages	Remarks
Material	301-1	Materials used by weight or volume	70	
	301-2	Recycled input materials used	70	
	301-3	Reclaimed products and their packaging materials	70	
Energy	302-1	Energy consumption within the organization	25, 65	
	302-2	Energy consumption outside of the organization	-	Not managed
	302-3	Energy intensity	25, 65	
	302-4	Reduction of energy consumption	25	
	302-5	Reductions in energy requirements of products and services	-	Not managed

GRI 300: Environmental Performance

Topic	Disclosure No.	Reported items	Reporting pages	Remarks
Water and Effluents	303-1	Interactions with water as a shared resource	27	
	303-2	Management of water discharge-related impacts	27	
	303-3	Water withdrawal	66, 67	
	303-4	Water discharge	66, 67	
	303-5	Water consumption	66, 67	
Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	-	Not managed
	304-2	Significant impacts of activities, products and services on biodiversity	-	Not managed
	304-3	Habitats protected or restored	21	
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	-	Not applicable
Emissions	305-1	Direct (Scope 1) GHG emissions	25, 65	
	305-2	Energy indirect (Scope 2) GHG emissions	25, 65	
	305-3	Other indirect (Scope 3) GHG emissions	-	Not managed
	305-4	GHG emissions intensity	25, 65	
	305-5	Reduction of GHG emissions	25	
	305-6	Emissions of ozone-depleting substances (ODS)	-	Not managed
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	66	
Waste	306-1	Waste generation and significant waste-related impacts	28	
	306-2	Management of significant waste-related impacts	28	
	306-3	Waste generated	68, 69	
	306-4	Waste diverted from disposal	68, 69	
	306-5	Waste directed to disposal	68, 69	
Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria	39	
	308-2	Negative environmental impacts in the supply chain and actions taken	-	Not managed

SASB Index

Topics	Accounting metrics	Code	Category	Measurement unit	Reporting pages
Greenhouse gas emissions	Total global Scope 1 emissions, percentage subject to emissions-limiting regulations	M-MM-110a.1	Quantitative	CO ₂ -e{t}, %	25 , 65
	Discussion of short- and long-term strategies for managing Scope 1 emissions, emissions reduction targets, and performance against those targets	EM-MM-110a.2	Qualitative	-	23 , 25
Air quality	Air emissions of the following pollutants: (1) CO (carbon monoxide), (2) NOx (nitrogen oxides, excluding N ₂ O), (3) SOx (sulfur oxides), (4) particulate matter (PM10), (5) mercury (Hg), (6) lead (Pb), and (7) volatile organic compounds (VOCs)	EM-MM-120a.1	Quantitative	ton	66
Energy management	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	EM-MM-130a.1	Quantitative	GJ, %	25 , 65
Water management	(1) Total freshwater withdrawn, (2) total freshwater consumed, percentage in regions with high or extremely high water stress	EM-MM-140a.1	Quantitative	m ³ , %	66 , 67
	Number of incidents of non-compliance associated with water quantity and quality permits, standards, and regulations	EM-MM-140a.2	Quantitative	Number of cases	21 , 70
Waste and hazardous materials management	Total weight of non-mineral waste generated	EM-MM-150a.4	Quantitative	ton	68 , 69
	Total weight of hazardous waste generated	EM-MM-150a.7	Quantitative	ton	68 , 69
	Total weight of hazardous waste recycled	EM-MM-150a.8	Quantitative	ton	Not managed
	Number of significant incidents associated with hazardous materials and waste management	EM-MM-150a.9	Quantitative	Number of cases	Not managed
	Description of waste and hazardous materials management policies and procedures for active and inactive operations	EM-MM150a.10	Qualitative	-	26 , 27 , 28
Impacts on biodiversity	Description of environmental management policies and practices for active sites	EM-MM-160a.1	Qualitative	-	Not managed
Community relations	Discussion of processes to manage risks and opportunities associated with community rights and interests	EM-MM-210b.1	Qualitative	-	Not managed
Labor relations	Percentage of employees covered under collective bargaining agreements, broken down by U.S. and foreign employees	EM-MM-310a.1	Quantitative	%	Not applicable
	Number and duration of strikes and lockouts	EM-MM-310a.2	Quantitative	Count, period	No cases
Employee health and safety	(a) For direct employees and (b) for contract employees: (1) MSHA all-incidence rate, (2) fatality rate, (3) near miss frequency rate (NMFR), and (4) average hours of health, safety, and emergency response training	EM-MM-320a.1	Quantitative	Ratio	74
Business ethics and transparency	Description of management systems for preventing corruption and bribery across the supply chain	EM-MM-510a.1	Qualitative	Not applicable	54-56
Activity metrics	(1) Production of metal ores and (2) production of finished metal products	EM-MM-000.A	Quantitative	ton	Not applicable
	Total number of employees, percentage contractors	EM-MM-000.B	Quantitative	Count, %	71

UN SDGs-aligned Activities

Goals		Our ESG reporting activities	Reporting pages
3 GOOD HEALTH AND WELL-BEING	Good Health and Well-being	Occupational health and safety	31-36
4 QUALITY EDUCATION	Quality Education	Human resources	41
5 GENDER EQUALITY	Gender Equality	Human resources	40 , 43
6 CLEAN WATER AND SANITATION	Clean Water and Sanitation	Minimizing environmental impacts	27
7 AFFORDABLE AND CLEAN ENERGY	Sustainable Energy	- Minimizing environmental impacts - Responding to climate change	25-27
8 DECENT WORK AND ECONOMIC GROWTH	Decent Work and Economic Growth	- Sustainable innovation and technology - Human resources	40-43

Goals		Our ESG reporting activities	Reporting pages
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Innovation and Infrastructure	- Sustainable innovation and technology - Eco-friendly products	59 , 60
10 REDUCED INEQUALITIES	Reduced Inequalities	Human resources	40 , 43
11 SUSTAINABLE CITIES AND COMMUNITIES	Sustainable cities and communities	- Community engagement - Supply chain management	37-39 , 44
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Responsible Consumption and Production	- Circular economy - Eco-friendly products - Quality management	28-30 , 47-48
13 CLIMATE ACTION	Climate Action	- Environmental management - Responding to climate change	19 , 22-25

* Among the 17 UN SDGs, we reported our sustainable management activities by focusing on selected goals relevant to our business characteristics.

GHG Emissions Verification Statement

MPC-23-047

Verification Scope

Korean Standards Association has conducted verification for GHG emissions based on GHG report provided by POONGSAN CORPORATION which includes Scope1 and Scope2 emissions.

Verification Standards and Guidelines

To conduct verification activities, verification team applied verification standards and guidelines. The standards and guidelines are as follows.

- Guidance for reporting and verification of GHG emissions trading scheme (No. 2023-221 provided by Ministry of Environment, Republic of Korea)
- Verification Guidelines for the Operation of the Greenhouse Gas Emission Trading System (No. 2021-112 provided by Ministry of Environment, Republic of Korea)
- For matters not specified in other guidelines, refer to 2006 IPCC Guidelines, KS I ISO 14064-1: 2018 and KS I ISO 14064-3: 2019

Level of Assurance

POONGSAN CORPORATION’s GHG emissions satisfies the under Reasonable Assurance (less than ±5.0% of total emissions).

Verification Conclusion

As a result of verification activities, verification team has found no significant errors, omissions, and misstatements. Therefore, Korean Standards Association confirms that following emissions data are adequately quantified.

2024 GHG Emissions (Scope1, Scope2) (Unit : tCO₂eq)

Year	Scope 1	Scope 2	Total
2024	63,314.151	176,157.227	239,469

* Decimal place is not considered when calculating the emission of each workplace.

April 10, 2025

Doagmin Moon

Independent Assurance Report

To readers of POONGSAN Sustainability Report 2024

Introduction

Korea Management Registrar (KMR) was engaged to conduct an independent assurance of POONGSAN Sustainability Report 2024 for the year ending December 31, 2024. The preparation, information and internal control of the report are the sole responsibility of Poongsan’s the management. KMR’s responsibility is to comply with the agreed engagement and express an opinion to Poongsan’s management.

Subject Matter

The reporting boundaries included the performance and activities of sustainability-related organizations as described in Poongsan’s report:

- POONGSAN Sustainability Report 2024

Reference Standard

- GRI Standards 2021 : 2023 [GRI]

Assurance Criteria

KMR conducted the verification in accordance with the globally recognized standard AA1000AS v3 and KMR’s assurance standard SRV1000 based on requirements of ISO 17029 and KMR EDV 01, and set the levels of assurance and materiality as below. Under AA1000AS v3, We assessed the adherence to the four principles presented in AA1000AP:2018—Inclusivity, Materiality, Responsiveness, and Impact—and evaluated the reliability and quality of the data and information using the GRI index specified in the report. Under SRV1000, we conducted a multidimensional review aimed at zero data errors, applying expert judgment to determine the materiality criteria.

- ISO 17029 : 2019, ISO 14065 : 2020, AA1000AS v3 : 2020 (AccountAbility), AA1000AP : 2018 (AccountAbility), SRV 1000 : 2022 (KMR), KMR EDV 01 : 2024 (KMR)
- Levels of assurance/materiality: AA1000AS v3 – Type 2/Moderate

Scope of Assurance

The scope of our assurance included the verification of compliance with the reporting requirements of the GRI Standards 2021. We confirmed that the following indicators of material topics were identified through the materiality assessment process.

- GRI Standards 2021 reporting principles
- Universal Standards
- Topic Specific Standards
 - GRI 201: Economic Performance
 - GRI 205: Anti-Corruption
 - GRI 305: Emissions
 - GRI 403: Occupational Health and Safety
 - GRI 414: Supplier Social Assessment

As for the reporting boundary, the engagement excludes the data and information of Poongsan’s partners, suppliers and any third parties.

KMR’s Approach

To perform an assurance engagement within an agreed scope of assessment using the standards outlined above, our Assurance Team undertook the following activities as part of the engagement:

- Evaluating the appropriateness of the reference standard used as a basis for preparing sustainability information and the reliability of the materiality assessment process and its findings;
- Conducting inquiries to understand the data management and control environment, processes, and information systems (the effectiveness of controls was not tested);
- Evaluating the appropriateness and consistency of the methodology for estimation (note that the underlying data was not tested and KMR has not made any estimates);
- Visiting the headquarters, determining visit sites based on the site’s contribution to sustainability and the possibility of unexpected changes since the previous period and sampling data, and carrying out due diligence on a limited number of source records at the sites visited;
- Interviewing people in charge of preparing the report;
- Considering whether the presentation and disclosures of sustainability information are accurate and clearly defined;
- Identifying errors through comparison and check against underlying information, recalculation, analyses, and back-tracking; and
- Evaluating the reliability and balance of information based on independent external sources, public databases, and press releases.

Independent Assurance Report

Limitations and Recommendations

The absence of generally accepted reporting frameworks or well-established practices on which to draw to evaluate and measure non-financial information allows for different measures and measuring techniques, which can affect comparability between entities. Therefore, our assurance team relied on professional judgment. The scope of this assurance included the confirmation of the truthfulness of claims regarding results that have already been obtained as stipulated by ISO 17029. However, the plausibility of intended claims of forecasts or hypotheses was not validated even if the related content was contained in the report.

A limited assurance evaluates the appropriateness of the criteria used by Poongsan for preparing sustainability information on subject matters, the risk of material misstatement in the sustainability information, whether due to fraud or error, responses to risks, and disclosure of the sustainability information on subject matters. However, the scope of the risk assessment process and the subsequent procedures performed in response to assessed risks, including an understanding of internal controls, is more limited than that of a reasonable assurance.

Our assurance team conducted our work to a limited extent through inquiries, analysis, and limited sampling based on the assumption that the data and information provided by Poongsan are complete and sufficient. To overcome these limitations, we confirmed the quality and reliability of the information by referring to independent external sources and public databases, such as DART and the National GHGs Management System (NGMS).

Conclusion and Opinion

Based on the document reviews and interviews, we had several discussions with Poongsan on the revision of the Report. We reviewed the Report’s final version in order to make sure that our recommendations for improvement and revision have been reflected. Based on the work performed, it is our opinion that the Report was prepared in accordance with the GRI Standards. Nothing comes to our attention to suggest that the Report was not prepared in accordance with the AA1000AP (2018) principles.

Inclusivity

Poongsan has developed and maintained different stakeholder communication channels at all levels to announce and fulfill its responsibilities to the stakeholders. Nothing comes to our attention to suggest that there is a key stakeholder group left out in the process. The organization makes efforts to properly reflect opinions and expectations into its strategies.

Materiality

Poongsan has a unique materiality assessment process to decide the impact of issues identified on its sustainability performance. We have not found any material topics left out in the process.

Responsiveness

Poongsan prioritized material issues to provide a comprehensive, balanced report of performance, responses, and future plans regarding them. We did not find anything to suggest that data and information disclosed in the Report do not give a fair representation of Poongsan’s actions.

Impact

Poongsan identifies and monitors the direct and indirect impacts of material topics found through the materiality assessment, and quantifies such impacts as much as possible.

Independent Assurance Report

Reliability of Specific Sustainability Performance Information

In addition to the adherence to AA1000AP (2018) principles, we have assessed the reliability of sustainability performance data, including average years of service, water resource management, greenhouse gas emissions, energy consumption, employee consumption, new hires. We interviewed the in-charge persons and reviewed information on a sampling basis and supporting documents as well as external sources and public databases to confirm that the disclosed data is reliable. Any intentional error or misstatement is not noted from the data and information disclosed in the Report.

KMR’s Competence, Independence, and Quality Control

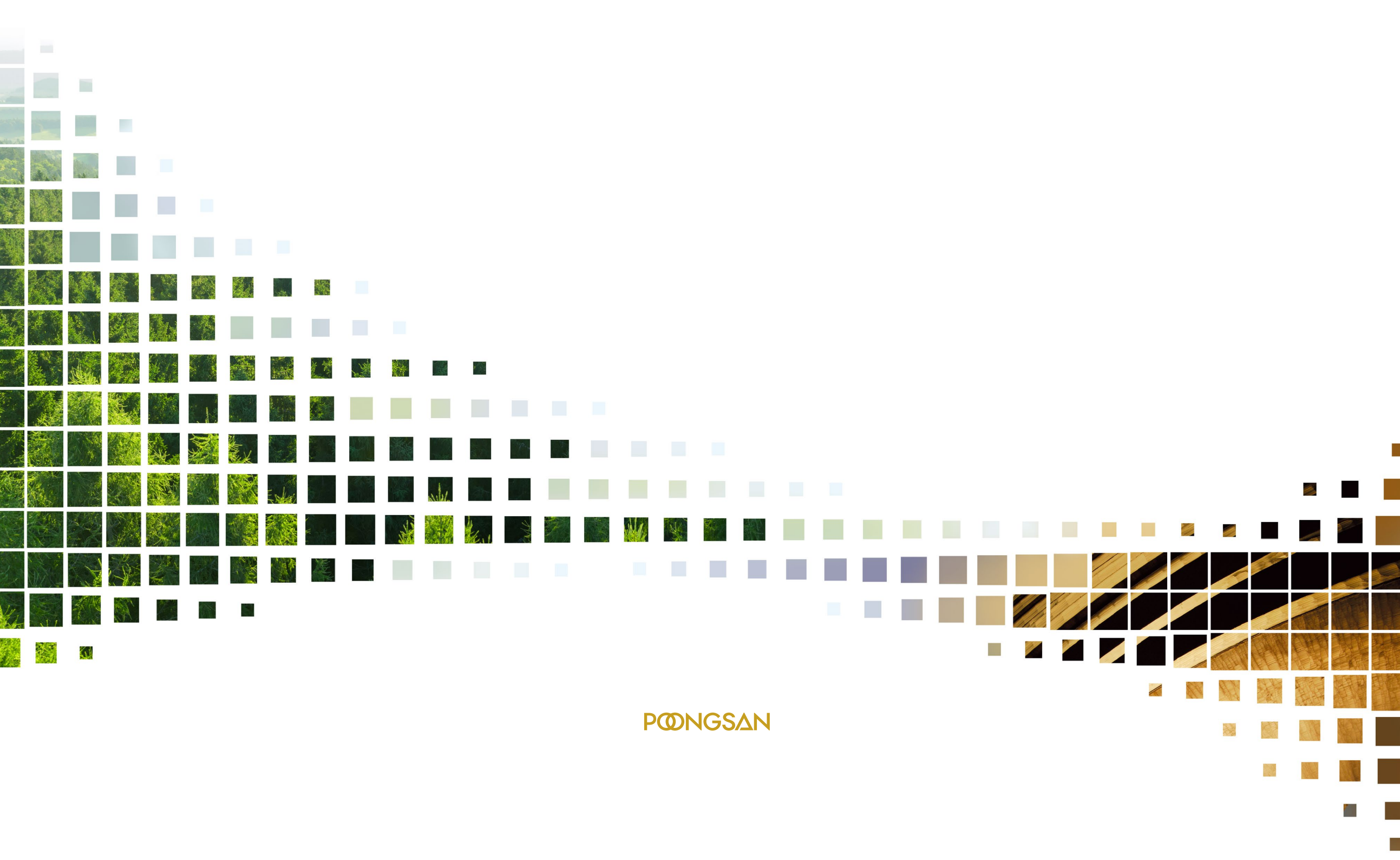
Korea Management Registrar (KMR) is a verification body for the greenhouse gas emissions trading scheme, accredited by the Korea Laboratory Accreditation Scheme (KOLAS) under the National Institute of Technology and Standards of Korea for ISO/IEC 17029:2019 (Conformity Assessment - General principles and requirements for validation and verification bodies), ISO 14067, and additional accreditation criteria, ISO 14065. It is also recognized by the Korea Accreditation Board (KAB) for ISO/IEC 17021:2015 (Requirements for bodies providing audit and certification of management systems), and the National Institute of Environmental Research under the Ministry of Environment of Korea. Additionally, KMR maintains a comprehensive quality control system that includes documented policies and procedures of the KMR EDV 01:2024 (ESG Disclosure Assurance System) based on ISO/IEC 17029 requirements and compliant with IAASB ISQM1:2022 (International Standard on Quality Management 1 by the International Auditing and Assurance Standards Board). Furthermore, KMR adheres to the ethical requirements of integrity, objectivity, professional competence and due care, confidentiality, and professional behavior in accordance with the IESBA Code:2023 (International Code of Ethics for Professional Accountants). Our assurance team consists of sustainability experts. Other than providing an independent assurance, KMR has no other contract with Poongsan and did not provide any services to Poongsan that could compromise the independence of our work.

Limitations of Use

This assurance statement is made solely for the management of Poongsan for the purpose of enhancing an understanding of the organization’s sustainability performance and activities. We assume no liability or responsibility for its use by third parties other than the management of Poongsan. The statement is valid as of the assurance date below. Certain events that may occur between the assurance date and the time of reading this report could have a material impact on the report, which may lead to revisions to this assurance statement. Therefore, we recommend visiting the Poongsan website and verifying whether this is the latest version.

June 27, 2025

CEO E. J. Hwang



PŎNGSAN