

# Sustainability Connecting Tomorrow

PI Advanced Materials 2024 Sustainability Report

# About This Report

PI Advanced Materials regularly publishes its Sustainability Report to disclose its sustainability strategies, performance, and future goals with internal and external stakeholders. This is the third Sustainability Report issued by PI Advanced Materials, which presents the company's sustainability strategies and key achievements. Through this report, the company aims to build trust with stakeholders and actively integrate their feedback into its future management decisions.



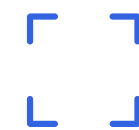
## Principles for Report Preparation

This report has been prepared in accordance with the GRI (Global Reporting Initiative) Standards 2021, the international reporting guidelines for sustainability management. It also reflects the 10 principles of the UN Global Compact (UNGC). Information related to financial performance complies with the Korean International Financial Reporting Standards (K-IFRS).



## Reporting Period

This report covers sustainability management activities from January 1, 2024 to December 31, 2024, and includes some activities in the first half of 2025. For key indicators, data from the past four years are included for comparison.



## Report Scope

The report includes sustainability performance across all operations of PI Advanced Materials, including the Seoul office, production sites in Jincheon and Gumi, and the R&D center. If any differences in reporting scope or changes in data exist, they are separately noted in the report. The financial information is prepared in accordance with the Korean International Financial Reporting Standards (K-IFRS).



## Report Verification

To ensure objectivity and credibility, this report has undergone third-party verification by the Korea Management Registrar. The verification was conducted in accordance with AA1000AS standards, and the results can be found in the appendix of this report.









## Report Publication and Information

This report is published in both Korean and English. Details on PI Advanced Materials' sustainability initiatives, including the content of this report, are available on the company's website.

## Inquiry

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-  Print
-  Go to previous Page
-  Go to cover page
-  Go to next page
-  Go to contents page
-  External link

# Contents

**04 Introduction**

- 05 CEO Message
- 06 Company Overview
- 08 Global Network
- 09 Business Overview

**13 Sustainability Management**

- 15 Sustainability Overview
- 19 Response to Global Initiatives
- 20 Double Materiality Assessment

**22 Sustainability Performance**

- 23 Embracing Green Innovation
- 35 Shaping Social Impact
- 49 Governing Responsibly

**62 Appendix**

- 63 ESG Data
- 75 GRI Index
- 77 UNGC
- 78 GHG Verification Statement
- 79 Auditors' Report
- 81 Independent Assurance Statement

- CEO Message
- Company Overview
- Global Network
- Business Overview

# Introduction

# CEO Message

## Dear stakeholders of PI Advanced Materials,

It is my great honor to present PI Advanced Materials' third Sustainability Report. In 2024, we successfully completed our first year as a member of the Arkema Group, laying a solid foundation for our growth into a global materials company. Despite ongoing uncertainties in the external economic environment, our employees' dedication and continuous innovation enabled us to achieve a 15% year-over-year sales growth and successfully return to profitability.

During the same year, we completed the construction and commissioning of our fifth film production line in Gumi, bringing the total number of film production lines to nine with a combined capacity of 6,000 tons. Additionally, leveraging synergies with Arkema, we made significant progress in expanding our customer base in the North American and European markets, further enhancing our global sales capabilities.

To prioritize safety and environmental protection at the management level, we established the HSE100 TFT and implemented proactive measures to drive fundamental improvements. Building on this experience, PI Advanced Materials remains dedicated to further enhancing its company-wide HSE management system and working toward zero workplace accidents.

PI Advanced Materials will continue to place "sustainability" at the core of its values and strengthen its initiatives as follows:

First, we will steadily implement our greenhouse gas reduction targets to achieve carbon neutrality, improve energy efficiency across products and processes, and strengthen eco-friendly design principles. We will reinforce the foundation for a circular economy by expanding waste resource recycling and enhancing resource circulation systems, while broadening the use of renewable energy solutions.

Second, we will enhance our risk analysis systems to prevent major accidents and expand the adoption of smart monitoring and digital safety management solutions. We will also strengthen cybersecurity measures to counter cyber threats and improve sustainability and resilience across the global supply chain. Third, we will drive sustainable organizational growth by supporting employee development and promoting a healthy work-life balance. Additionally, we will strengthen partnerships with our suppliers, contribute to social value creation through community engagement, and pursue sustainable management practices that foster collective growth with all stakeholders. I sincerely thank all stakeholders for their unwavering support of our journey toward a sustainable future. Together, we will shape a better tomorrow.

Thank you.



**PI Advanced Materials**  
Chief Executive Officer **Kevin Song**

A handwritten signature in black ink, appearing to read 'Kevin Song', written over a light grey horizontal line.

# Company Overview



## Company Profile

PI Advanced Materials specializes in producing polyimide (PI) materials for a wide range of advanced industries, including IT devices, electric vehicles (EVs), displays, semiconductors, and rechargeable batteries. PI film, the company's flagship product, is developed using proprietary technologies and competes with major global players in the United States, Japan, and Taiwan. Since 2014, PI Advanced Materials has maintained the No. 1 share in the global PI film market. By continuously expanding into new applications such as PI varnish and PI stock shapes, we are driving technology innovation and product diversification—paving the way to becoming the world's leading advanced materials company.



## Company Overview

<b>Company Name</b>	PI Advanced Materials Co., Ltd.
<b>Business Areas</b>	Production of polyimide films, varnish, and powder mold products
<b>Vision</b>	Polyimide Leader, Mobility Provider, Value Innovation
<b>CEO</b>	Kevin Song (since March 2023)
<b>Revenue</b>	KRW 251.3 billion (as of 2024)
<b>Number of Employees</b>	330 (as of the end of 2024)
<b>Date Founded</b>	June 2, 2008
<b>Headquarters</b>	27 Godeung 1-gil, Iwol-myeon, Jincheon-gun, Chungcheongbuk-do, Korea



## Market Share of PI Film

**30.5 %**

As of the end of 2024  
Source: Yano Research Institute; company estimates



## Global No.1 PI Film Market Share

**1<sup>st</sup>**

**Polyimide Leader**



## Sustainable Growth Potential

**7.0 %**

Sales CAGR from 2015 to 2024

**Mobility Provider**



## Global No.1 PI Film Production Capacity

**6,000<sup>t</sup>**

End of 2024

**Value Innovation**



# Company History

Since its founding as SKCKOLONPI in June 2008, PI Advanced Materials has evolved into a leading global manufacturer of PI films, powered by its proprietary technology and expanding global presence. Since rebranding the current name in 2020, the company has expanded its market share across various industries, achieving annual sales of KRW 300 billion in 2021. The company has maintained stable revenue streams, driven by sales of its film and varnish products, and has nine film production lines after the expansion of its fifth film production line at the Gumi Plant. Additionally, the company is actively expanding its business portfolio, including the development of PI powder and molded products. In December 2023, Arkema, a leading global manufacturer specializing in advanced materials and specialty chemicals, became the largest shareholder, enabling PI Advanced Materials to further strengthen its global network, the company continues to make steady progress toward its vision of becoming a global leader in advanced materials.

## 2020

The largest shareholder changed to Glenwood PE. Company name changed to PI Advanced Materials Co., Ltd.



## 2019

Completed construction of the fourth production line at Jincheon Plant



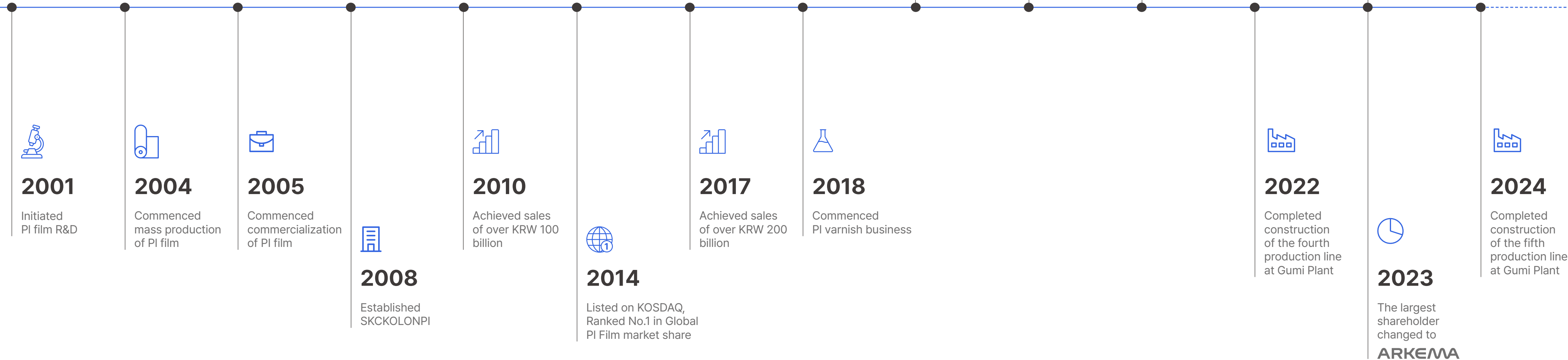
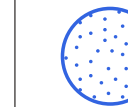
## 2021

Listed on KOSPI, Achieved sales of over KRW 300 billion



## 2023

Entry into PI powder / Molding business



# Global Network

## Arkema (China) Investment Co.Ltd

Building 12, TaiYangGong Middle road,  
Chaoyang District, Beijing 100028

## China

## Taiwan

## Korea

## Japan

- Arkema
- Overseas Distributors
- Headquarters & Plants
- Overseas Agents



**Global Sales Network**

**Sales Organization**



Specialized organizations by region and end-use market  
Product and service delivery via dedicated staff and distribution channels

## Seoul

Office

16F, Building B, Grand Central, 14  
Sejong-daero, Jung-gu, Seoul

Corporate management

Sales / Sales Management

Plant

R&D Center

## Jincheon

27, Godeung 1-gil, Iwol-myeon,  
Jincheon-gun, Chungcheongbuk-do

R&D Center

Production

Quality Management

Support

## Gumi

Plant

48, Suchul-daero, Gumi-si, Gyeongsangbuk-do

Production

Quality Management

Support

## Europe

### Arkema Group Global HQ

51 Esplanade du General de Gaulle 92800  
Puteaux La Défense, France

## America

### Arkema Inc. Corporate Headquarters

155 King of Prussia Rd, Radnor, PA 19087  
United States of America

# Business Overview

## Mobile & Display

As IT devices advance in performance, the use of flexible FPCBs (Flexible Printed Circuit Boards) is increasingly replacing rigid circuit boards (RPCBs). PI Advanced Materials' polyimide film serves as a core component of FPCBs, enhancing IT device performance and minimizing data loss in 5G communications. Additionally, it is at the forefront of the flexible display market, used in Chip on Film and foldable devices to enable high-resolution displays.



## Thermal & Mobility

We provide heat dissipation solutions by developing the film for graphite sheets, which offer the highest thermal conductivity among heat dissipation materials used to address heat generation in high-performance mobile devices. In addition, rechargeable battery materials for electric vehicles require heat resistance and insulation, and PI Advanced Materials' polyimide film and PI varnish materials contribute to enhancing battery safety.



## New Growth Business

PI Advanced Materials has established strong technological competitiveness by developing base PI materials for photosensitive PI applications, essential for semiconductor manufacturing processes and customizable to meet specific customer requirements. We also produce PI varnish as a substitute for glass substrates used in flexible OLED, while PI powder and molded products are used as core components of deposition, etching, and high-temperature process equipment. PI Advanced Materials is also developing eco-friendly materials, including lightweight solutions for energy savings and specialized materials for gas separation, driving sustainable innovation across industries.



# ZENIMID™

"PI Advanced Materials introduced its new brand, "Zenimid™" in 2025, covering its entire product range. Zenimid™ embodies the zenith of performance, innovation, and durability.

### Performance

Zenimid™ products are designed and manufactured to meet the highest quality standards. Zenimid™ delivers 'Performance' by offering exceptional value achieving desired results with precision.

### Innovation

Zenimid™ unlocks new possibilities through advanced technology, delivering groundbreaking solutions that go beyond functional improvements. Zenimid™'s approach to 'innovation' is defined by forward-thinking design and a commitment to realizing sustainable progress.

### Durability

Zenimid™ offers exceptional durability, ensuring stable performance across diverse environments. Its properties resist heat, shock, and other harsh conditions, maintaining reliability even after long-term use. 'Durability' represents the sustainable quality Zenimid™ promises.

# Business Portfolio

## Business Division

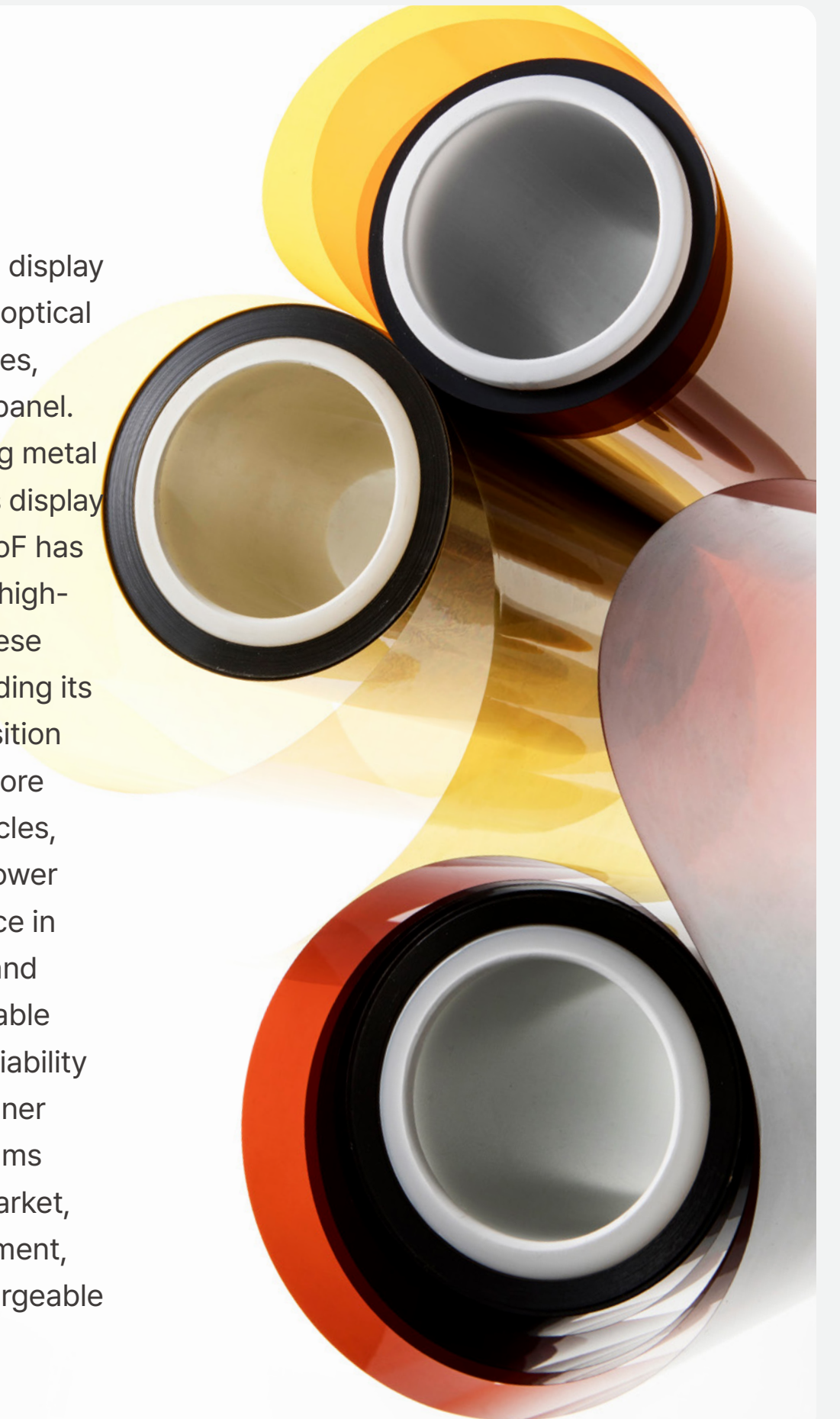
### Mobile

PI films are primarily used in the FPCB industry, which accounts for the largest share of the PI film market. They are applied in various forms within FPCBs, including coverlays, flexible copper clad laminates (FCCLs), and stiffeners. FCCLs are laminated products in which PI film and copper foil are bonded together, classified into two-layer and three-layer types based on adhesive usage. During FCCL fabrication, PI film-based coverlays help form and protect circuits on copper foil, with demand increasing in line with the expanding applications of FPCBs. The rising adoption of diverse IT devices and the trend of automotive electrification continue to drive growth in demand for two-layer and three-layer FCCLs. In the Mobile and Display sectors, the market is shifting toward smaller, thinner, and more reliable products, requiring suppliers to leverage advanced technologies and strong supply capabilities as key competitive factors. To address these trends, PI Advanced Materials is enhancing its proprietary technologies and working closely with customers to develop PI films optimized for thinner, higher-density applications while expanding its market presence. Notably, the company has successfully achieved the world's first mass production of 4 $\mu$ m PI films, proactively meeting the growing demand for ultra-thin materials and adapting to evolving market needs.



### Display

PI films used in displays contribute to the stable development of the display market by enhancing the durability and performance of display and optical components. Chip On Film (CoF), a key component in display modules, serves as a driver circuit that transmits video signals to the display panel. It is manufactured by forming circuits on FCCL created by depositing metal layers and plating copper onto PI film and mounting driving chips. As display resolution has advanced from UHD to 4K and 8K, the adoption of CoF has steadily increased, particularly in LCD and OLED panels, to support high-resolution displays. PI Advanced Materials is actively adapting to these technological trends by developing CoF-specific PI films and expanding its portfolio of complex products that require advanced thin-film deposition capabilities. In addition, PI Advanced Materials supplies PI films as core base materials not only for smartphones, displays, and electric vehicles, but also for emerging industries such as aerospace and industrial power systems. PI film-based tapes provide superior insulation performance in compact sizes, making them ideal for semiconductors, capacitors, and other high-precision components. These tapes include both disposable masking tapes used in industrial production processes, and high-reliability tapes for advanced semiconductor applications. As demand for thinner and more highly integrated materials grows, the applications of PI films continue to diversify. To pioneer the next-generation industrial PI market, PI Advanced Materials is actively investing in the research, development, and commercialization of PI-based materials for fuel cells and rechargeable batteries.

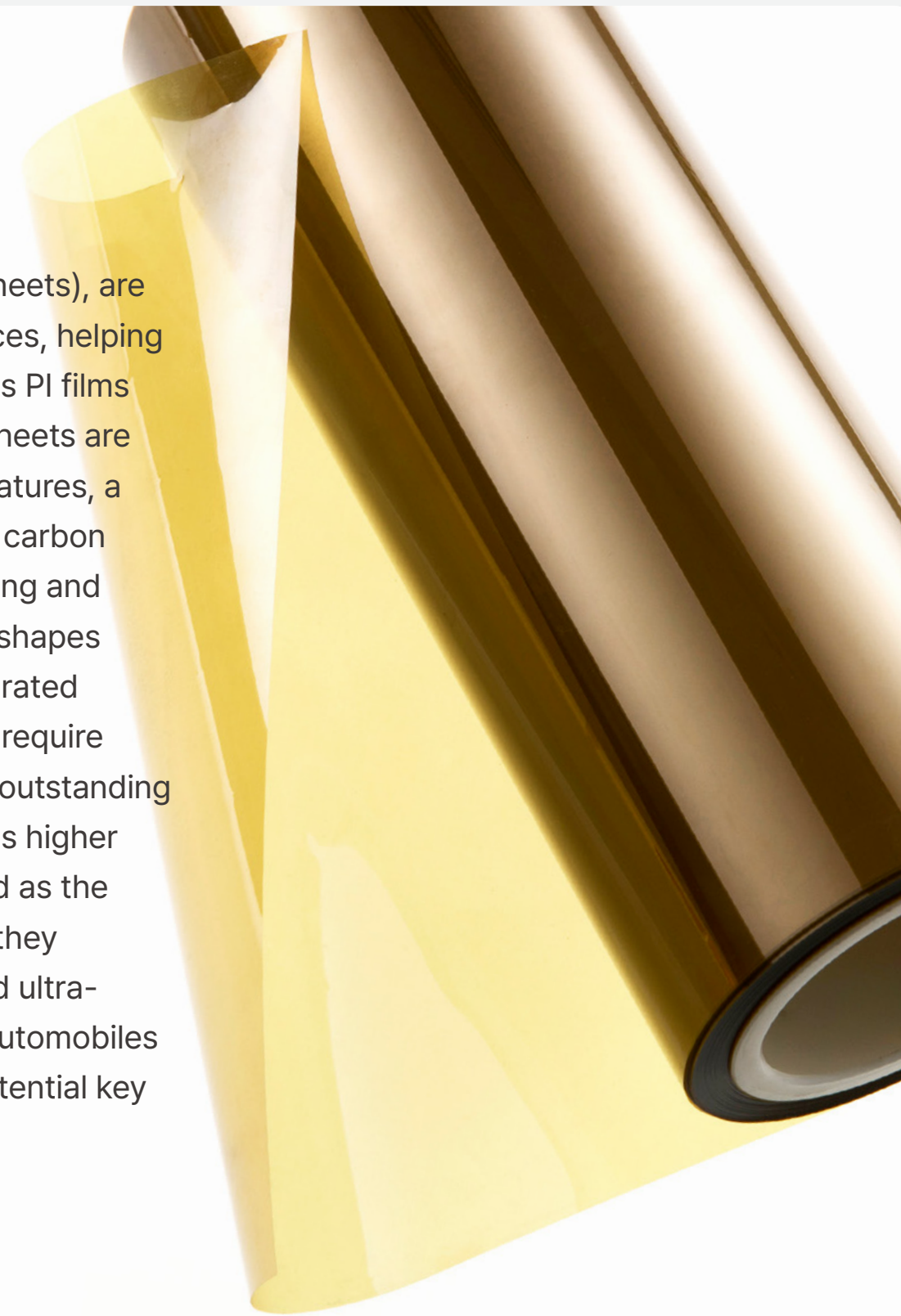


# Business Portfolio

## Business Division

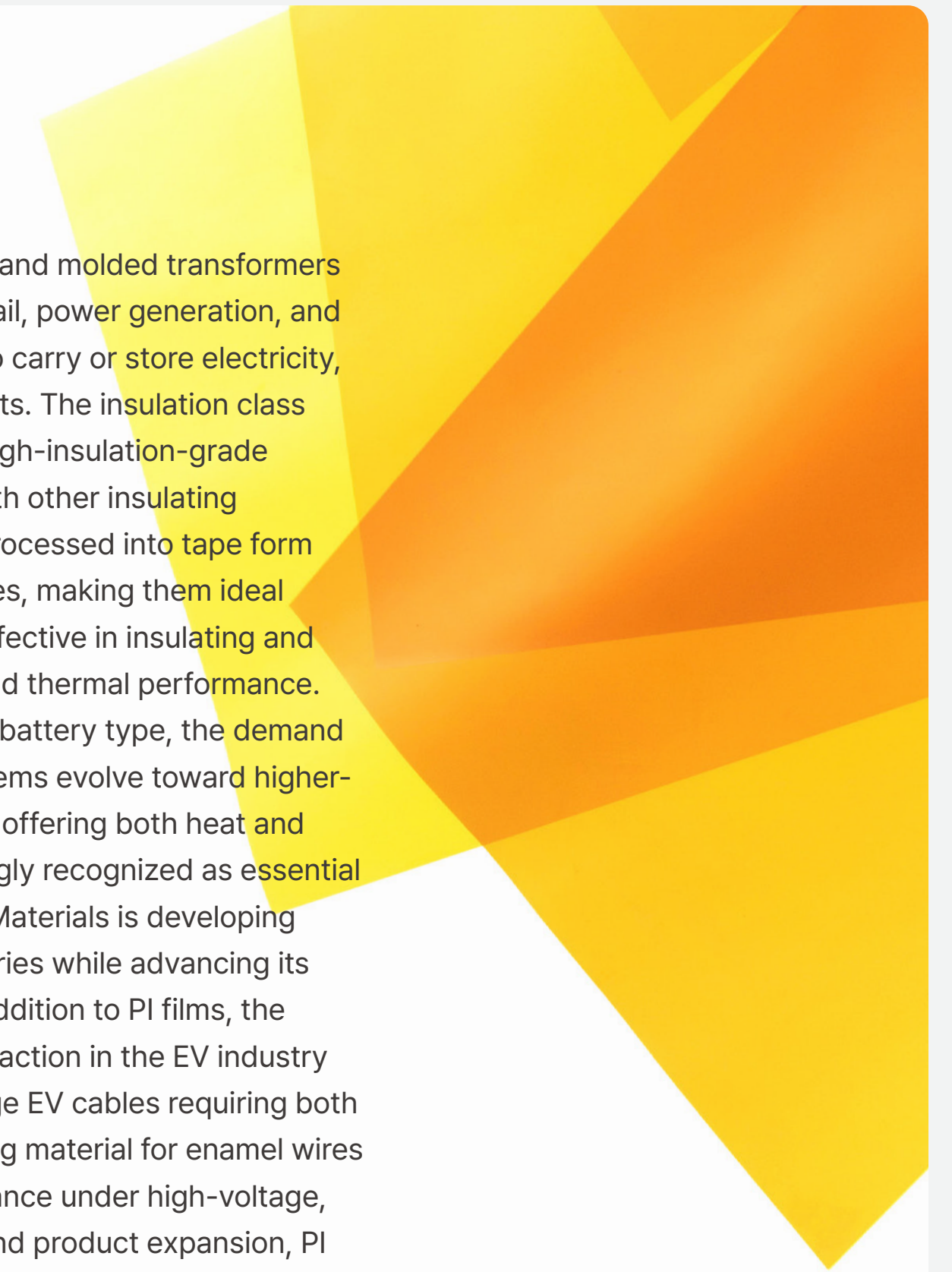
### Thermal Solutions

Artificial graphite sheets (Artificial/Pyrolytic/Synthetic graphite sheets), are materials used to effectively dissipate heat generated by IT devices, helping to maintain optimal performance. PI Advanced Materials produces PI films specifically designed for use in artificial graphite sheets. These sheets are produced by carbonizing and graphitizing PI films at high temperatures, a process that removes non-carbon components, leaving primarily carbon content. After production, artificial graphite sheets undergo coating and lamination processes, before being cut in to specific component shapes and supplied to parts manufacturers. The final products are integrated into smartphones and various other portable and IT devices that require advanced thermal management. Artificial graphite sheets exhibit outstanding thermal conductivity: 2 to 4 times higher than copper, 3 to 7 times higher than aluminum, and twice as high as natural graphite. Recognized as the highest-performing commercial thermal management materials, they combine superior heat dissipation with lightweight properties and ultra-thin form factors. As electrification and electronic integration in automobiles accelerate, artificial graphite sheets are gaining attention as a potential key solution for thermal management beyond IT devices.



### Mobility

High-voltage equipment such as large motors, generators, and molded transformers are essential across industries including marine, defense, rail, power generation, and heavy machinery. These devices incorporate conductors to carry or store electricity, along with insulation materials to prevent leakage of currents. The insulation class is determined based on the required voltage level, and in high-insulation-grade applications, PI films are frequently used in combination with other insulating materials to enhance performance and reliability. PI films processed into tape form offer excellent insulation performance even in compact sizes, making them ideal for rechargeable battery insulation. They are particularly effective in insulating and protecting battery anode tabs, ensuring stable electrical and thermal performance. As more automotive manufacturers transition to cylindrical battery type, the demand for PI films is expected to rise accordingly. As battery systems evolve toward higher-density and multifunctionality its, the demand for materials offering both heat and insulation resistance continues to rise PI films are increasingly recognized as essential for these applications. To address this need, PI Advanced Materials is developing PI varnish for electrospun separators in rechargeable batteries while advancing its technology through industry-academic collaborations. In addition to PI films, the company supplies liquid-type PI varnish, which is gaining traction in the EV industry as applications and usage volumes expand. For high-voltage EV cables requiring both insulation and heat resistance, PI varnish serves as a coating material for enamel wires and is applied to EV motors enhancing safety and performance under high-voltage, fast-charging conditions. Through continuous innovation and product expansion, PI Advanced Materials aims to lead the next-generation industrial PI market across the energy sector, including fuel cells and rechargeable batteries.



# Business Portfolio

## Business Division

### Display and Semiconductor Varnishes

In the display industry, PI varnishes are advancing to meet technological demands for thinner, more flexible, and higher-resolution materials. PI varnish for flexible OLED substrates is emerging as a key material that can replace traditional glass, offering high heat resistance, excellent dimensional stability, and flexibility. PI Advanced Materials is actively growing presence in the display market with differentiated products such as transparent PI, eco-friendly formulations, and low-dielectric materials. In the semiconductor industry, PI varnishes are essential in advanced manufacturing processes, requiring high insulation and adhesion performance. PI Advanced Materials provides these products in customized formulations to meet specific customer requirements. Additionally, the company is developing base PI materials for photosensitive PI (PSPI) applications, further solidifying its position in the semiconductor materials market.



### Powder and Molded Products

Beyond films and varnishes, PI Advanced Materials manufactures solid-type PI products. The company produces PI powders, which are compressed under high temperature and pressure to form molded plates or rods. PI powder can also be processed to make components such as bearings, bolts, and gaskets using the Direct Forming (DF) process. These components exhibit exceptional properties, including heat resistance, wear resistance, low friction, electrical insulation, mechanical strength, radiation resistance, chemical stability, and low outgassing. Leveraging these attributes, the products are commonly used in advanced displays and semiconductor equipment. PI Advanced Materials is strengthening its global marketing efforts and advancing R&D to extend the application of molded products into precision mechanical parts, high vacuum systems, EVs, and aerospace industries.



### Eco-Friendly Product Development

In line with global sustainability trends, PI Advanced Materials is advancing the development of eco-conscious products in three key areas: alternative raw materials, lightweight materials, and renewable energy applications.

#### 1. Alternative Raw Materials

While polyimides outperform other engineering plastics in durability and functionality, certain production processes involve controlled chemicals. The company is developing PI materials with no harmful substances, supporting ESG initiatives and promoting environmentally responsible manufacturing.

#### 2. Lightweight Materials

To enhance energy efficiency, PI Advanced Materials is developing lightweight composite materials as alternatives to conventional metals in vehicles and aircraft. The company is currently evaluating PI resins for aerospace and mobility applications to support the next generation of high performance, fuel-efficient technologies.

#### 3. Gas Separation Membrane Materials

The company is developing PI-based materials for gas separation membranes used in renewable energy applications such as bio-methane, hydrogen, and Carbon Capture, Utilization and Storage (CCUS). These materials are designed to improve separation efficiency and contribute to the advancement of the eco-friendly renewable energy industry.



Sustainability Overview  
Response to Global Initiatives  
Double Materiality Assessment



# Sustainability Management

# Key Highlights of 2024

## Selection as One of the Top 100 ESG Best Companies by Sustainvest

PI Advanced Materials has been recognized for its outstanding sustainable management performance by earning a spot in Sustainvest's "First Half 2024 ESG Best Companies 100". The selection highlights the top 100 companies leading ESG management among 1,072 listed companies in Korea. PI Advanced Materials was recognized as an exemplary ESG driven organization for its achievements in reducing energy consumption, setting and implementing greenhouse gas emission reduction targets, and operating a dedicated ESG management team.

## Leading the Way in Carbon Reduction: PI Advanced Materials Partners with UNIST Graduate School of Carbon Neutrality

PI Advanced Materials has signed a memorandum of understanding (MOU) with the UNIST Graduate School of Carbon Neutrality to advance the development and commercialization of carbon-neutral technologies. Through this partnership both organizations will collaborate on key technologies for carbon neutrality, including carbon capture, utilization, and storage (CCUS), hydrogen, and renewable energy. The partnership will also extend to policy development and talent cultivation. By working together with UNIST, PI Advanced Materials aims to accelerate progress towards its carbon neutrality ambition and drive technological innovation for a sustainable future.

## PI Advanced Materials Successfully Develops World's First 4-Micrometer Ultra-Thin Polyimide Film

In October 2024, PI Advanced Materials achieved a groundbreaking milestone by producing the world's first 4-micrometer thick, non-stretched, ultra-thin polyimide film, further cementing its global leadership in materials technology. This innovative product surpasses the previously available 5-micrometer version, offering significant advantages in lightweight and slim design for next-generation electronic devices such as smartphones, high-performance displays, and wearables. With a thickness of approximately 1/25th of a human hair, the film boasts exceptional flexibility and heat resistance, making it an ideal material for lightweight displays and electric vehicle batteries. PI Advanced Materials is also advancing the development of a 3-micrometer version, aiming to further solidify its technological leadership in the global electronic materials market.

## PI Advanced Materials Joins the UN Global Compact

PI Advanced Materials Co., Ltd. Information:  
 Type: Company  
 Country: Korea, Republic of  
 Sector: Chemicals  
 Membership: Publicly Listed  
 Global Compact Status: Active  
 Participant Since: 11 November 2024  
 Letter of Commitment: Best Communication Progress (COP) due on: 31 July 2025

In November 2024, PI Advanced Materials officially became a member of the UN Global Compact (UNGC), a global sustainability initiative, further strengthening its commitment to ESG management. Through this membership, PI Advanced Materials aims to integrate the 10 principles of the UNGC, covering human rights, labor, environment, and anti-corruption, into its corporate operations. Additionally, the company will expand efforts in key areas such as carbon neutrality and human rights management, and will seek to contribute to achieving the Sustainable Development Goals (SDGs).

## Expansion of Sustainable Management with the Launch of the ESG Innovation Committee

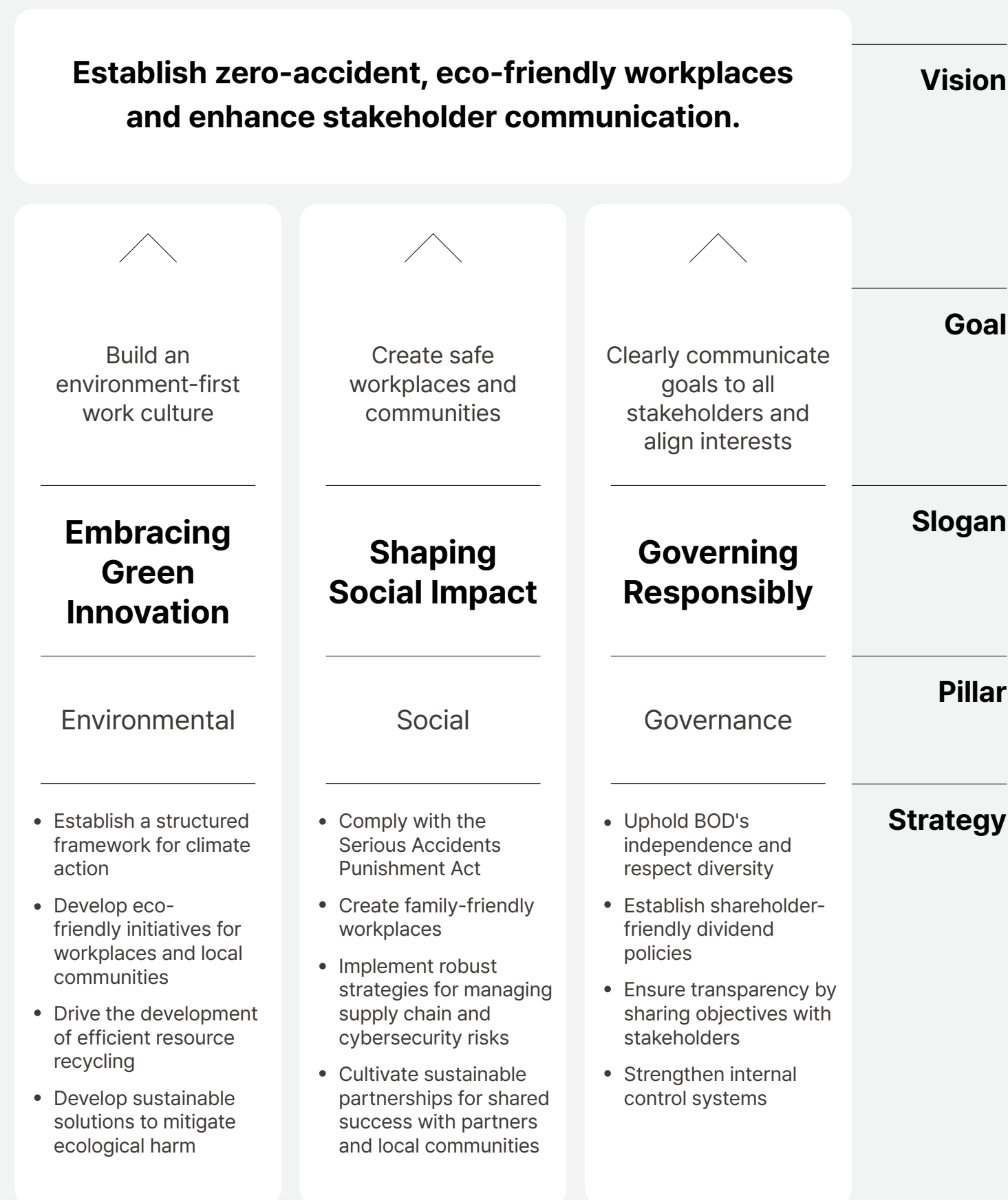
전력물자관리원 체수홍 실장, 한국에너지기술연구원 광지혜 단장, 울산과학기술원 (UNIST) 송창근 교수

In February 2024, PI Advanced Materials launched the "ESG Innovation Committee" to strengthen its ESG management. Comprised of external experts in environmental, social, and governance fields, and the committee provides consultation and collaboration across the full spectrum of sustainable management, including eco-friendly material development, climate change response, and supply chain management. PI Advanced Materials is also partnering with key institutions such as the Korea Institute of Energy Technology, the Strategic Materials Management Institute, and the UNIST Graduate School of Carbon Neutrality. Through this initiative, the company aims to further enhance its expertise and execution capabilities in addressing ESG challenges.

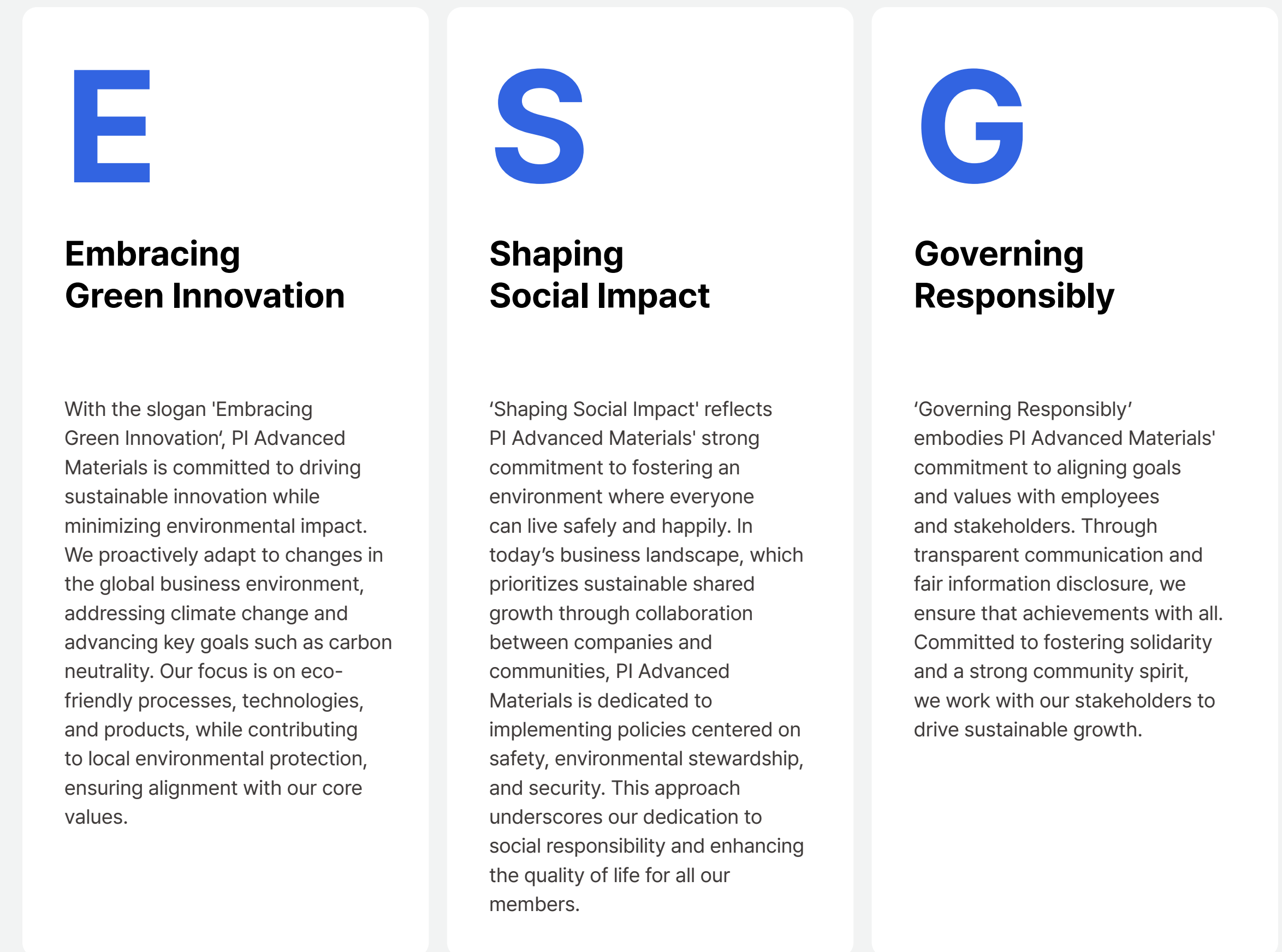
# Sustainability Strategy

## Vision and Strategy

In addition to achieving financial performance, PI Advanced Materials is committed to creating sustainability-driven impact, by fostering accident-free and eco-friendly workplaces and enhancing stakeholder communication. To further strengthen its ESG management, the company has established strategies and slogans for environment (E), social (S), and governance (G) areas, and continues to pursue specific goals aligned with the principles.



## Sustainability Management Slogan

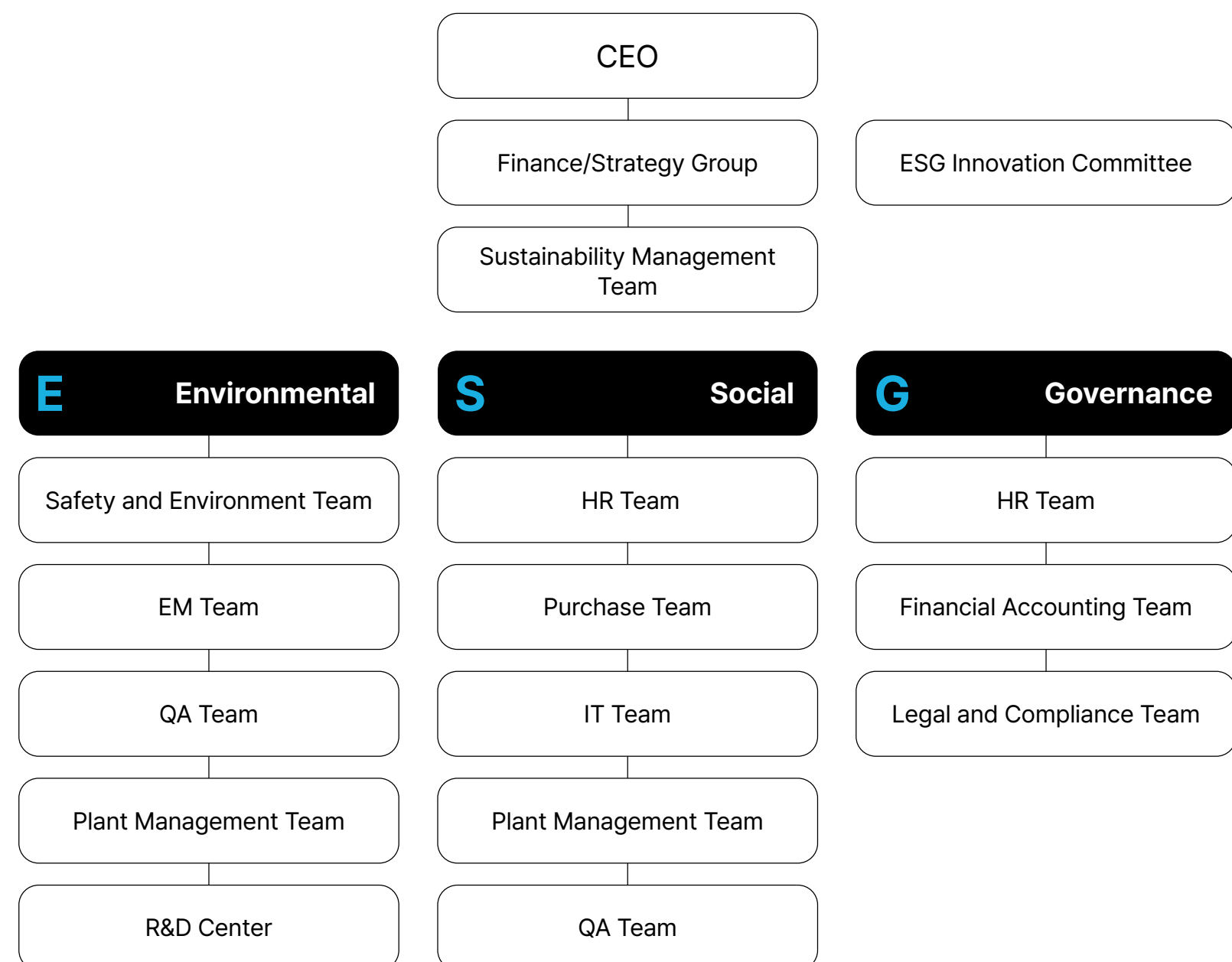


# Sustainability Strategy

## Status of ESG Management and Organizational Structure

### Organization

PI Advanced Materials has established and operates a dedicated ESG team to implement sustainable management practices and achieve long-term ESG objectives. The team monitors the latest sustainability trends, provides strategic direction, and works collaboratively across departments, including environmental safety, human resources, management support, procurement, and research to drive sustainability initiatives. Additionally, in 2024, the company formed the 'ESG Innovation Committee,' composed of senior executives and distinguished professors from leading institutions and academia. This initiative further enhances the company's commitment to sustainable management at the highest level.



\*Organization as of 2024

### Establishment of the ESG Innovation Committee

PI Advanced Materials has formed the 'ESG Innovation Committee,' composed of external experts, to address key issues across environment (E), social (S), and governance (G). This committee plays a vital role in advising and supporting the company's sustainable management initiatives, including eco-friendly energy materials development, supply chain management, and climate change response. The committee includes distinguished experts from the following fields:



**Kwak Ji-hye**  
 Director of the Solar Energy Research Division at the Korea Institute of Energy Technology  
 Advisor on renewable energy materials such as solar power generation.



**Chae Soo-hong**  
 Director of the Policy Cooperation Division at the Korean Security Agency of Trade and Industry  
 Advisor on materials and supply chain management.



**Song Chang-geun**  
 Professor at Ulsan National Institute of Science and Technology (UNIST)  
 Advisor on greenhouse gas reduction, climate change disclosure, and related policies.

By collaborating with these external experts, PI Advanced Materials is strengthening its commitment to sustainable management.

### Sustainable Management Education

PI Advanced Materials conducts various trainings and seminars to enhance employees' interest and expertise in sustainable management. Moving forward, we will continue to expand ESG-related trainings, ensuring the stable establishment of sustainable management principles across the organization.

Date	Content	Target	Type
Mar 11, 2024	<b>Current Status of Global ESG Regulations and key focus areas for ESG compliance</b>	Employees	Offline
Mar 22, 2024	<b>Understanding the Concepts of ESG and Sustainable Management</b>	Employees	On/Offline
Apr 11, 2024	<b>Sustainable Safety Management</b>	Employees	Offline
Jun 21, 2024	<b>Information Disclosure in Sustainable Management and the Role of Media</b>	Employees	On/Offline
Sep 24, 2024	<b>Trends in Global Technology Regulations</b>	Independent Director	Online
Oct 16, 2024	<b>CSR Strategy Seminar</b>	Employees	Offline

# ESG Performance

## Overview of ESG Performance Management

### ESG Performance Management Framework

PI Advanced Materials is embedding sustainability management into its daily operations, ensuring active employee participation at all levels. By linking safety and environmental performance to KPIs, the company fosters engagement of all employees. The ESG Innovation Committee periodically reviews progress on the company's sustainability initiatives, ensuring accountability across the organization. PI Advanced Materials is enhancing its environmental investments and expanding information disclosure, to build eco-friendly workplaces. Looking ahead, the company plans to further strengthen its ESG management system, aligning ESG risks with business operations while driving sustainable growth.

### ESG Performance Evaluation Status Overview

PI Advanced Materials has implemented an effective sustainable management system, focusing on strategic oversight, risk monitoring, and effective response, in alignment with the Environmental (E), Social (S), and Governance (G) frameworks. In 2024, PI Advanced Materials received a B+ by the Korea Institute of Corporate Governance and Sustainability (KCGS) and received an A grade in the evaluation conducted by Sustainvest. Furthermore, in its first review by the global ESG rating agency EcoVadis, the company obtained a Silver grade, scoring consistently high in all key areas including Environment, Labor & Human Rights, Ethics, and Sustainable Procurement. This accomplishment places PI Advanced Materials within the top 7% globally among the companies evaluated by EcoVadis. These achievements underscore PI Advanced Materials' strengths in sustainable management. Going forward, PI Advanced Materials will continue to strengthen its ESG risk management system and advance sustainable business practices.

### ESG Evaluation Results

#### KCGS Evaluation



<b>B+</b> Overall Grade	<b>B+</b> Environmental
<b>A</b> Social	<b>B+</b> Governance

#### Sustainvest Evaluation



<b>AA</b> Size Grade	<b>A</b> Overall Grade
----------------------	------------------------






#### EcoVadis Evaluation



**Awarded Silver Medal**  
Top 7% Ranking

# Communication with Stakeholders

PI Advanced Materials operates diverse communication channels to ensure that stakeholder perspectives are reflected in its management activities. To gather valuable insights and feedback from employees, customers, investors, and partners, the company promotes transparent information sharing by disseminating key business updates through its website, media, and public disclosures.

	Stakeholders					
	<b>Employees</b> 	<b>Customers</b> 	<b>Investors</b> 	<b>Partners</b> 	<b>Local Communities</b> 	<b>Definition</b>
	<p>Stakeholders who play key roles in product manufacturing and its supporting activities</p>	<p>Buyers of products and services provided by PI Advanced Materials</p>	<p>Stakeholders who provide financial capital, enabling PI Advanced Materials to implement strategies, operate its business, and sustain sustainable growth</p>	<p>Stakeholders responsible for supplying raws materials, equipment and transportation to PI Advanced Materials</p>	<p>All stakeholders impacted by business activities, including local residents near the company's business sites</p>	<b>Communication Channels</b>
	<p>Labor-Management Council, Collective Bargaining</p> <p>Communication Enhancement Program</p> <p>Employee Workshop 'CAN Meeting'</p> <p>Industrial Safety and Health Committee and Working Group</p>	<p>Website</p> <p>Customer inquiries</p> <p>Press release</p> <p>Trade shows</p>	<p>Shareholders' meeting</p> <p>Board of Directors</p> <p>Disclosures</p> <p>Press releases</p> <p>Sustainability report</p>	<p>Website</p> <p>Safety and Health Committee</p> <p>Supply chain evaluation</p>	<p>Community volunteer activities</p> <p>Website</p>	<b>Key Issues</b>
	<p>Talent development</p> <p>Work-Life balance</p> <p>Safety and health and environmental management</p> <p>Welfare systems and fair compensation</p>	<p>Creating innovative and eco-friendly products tailored to customer needs</p> <p>Quality management</p> <p>Providing information on ESG management status</p>	<p>Disclosures financial performance</p> <p>Sustainable corporate value</p> <p>Corporate governance</p> <p>Risk management</p>	<p>Use of eco-friendly and ethically managed products</p> <p>Safety and health management</p>	<p>Local environmental protection and ecosystem conservation</p> <p>Local community support programs</p>	

# Response to Global Initiatives



PI Advanced Materials fully supports all 17 UN Sustainable Development Goals (UN SDGs) and integrates them into its business activities as core criteria for sustainable management. Aligning with its ESG slogans — Embracing Green Innovation, Shaping Social Impact, Governing Responsibly — the company prioritizes these goals in the execution of various business and project activities.

## ESG Slogan

## Material Issues

## Key Activities

### Embracing Green Innovation

E

- Climate change response
- Energy consumption reduction and management
- Reduction of hazardous chemicals and enhancer of chemical management system

- Establishing climate change response organization and foundation for carbon neutrality
- Energy saving activities at each plant
- Regular hazardous chemical substance inspections and chemical substance management training



### Shaping Social Impact

S

- Talent acquisition and development
- Health and safety
- Human rights
- Information security

- Implementing of programs for talent development programs
- Establishing safety and health policies and conducting regular training for workplace safety and health
- Ensuring equal human rights for employees and partners through the human rights management charter and providing relevant training
- Establishing personal data protection guidelines and information security incident management guidelines for information protection, and conducting regular training and assessments



### Governing Responsibly

G

- Compliance management
- Financial soundness

- Implementing compliance risk management and employee trainings
- Operating internal accounting management system based on best practice guidelines



# Double Materiality Assessment

## Materiality Assessment Overview

PI Advanced Materials conducted a double materiality assessment based on the GRI and ESRS standards, identifying nine critical issues out of 25 key areas, such as safety and health management, talent acquisition and development, and

compliance management. Major activities and outcomes related to each issue are transparently communicated to stakeholders through the sustainability report.

## Materiality Assessment Process



### Step 1. Identification of Relevant ESG Issues

- Analysis of business activities
- Analysis of industry peers
- Analysis of global standard indicators
- Analysis of global evaluation indicators
- 2023 material issues and internal KPIs

### Step 2. Analysis of Materiality Issues

- Alignment with domestic / global regulations and guidelines
- Benchmarking
- Application of internal impact survey results

### Step 3. Materiality Assessment and Identification of Material Issues

- Survey of employees and partners
- Quantitative evaluation on a 5-point scale based on social/environmental interest and business financial impact

### Step 4. Selection of Material Issues

- Review of issues in connection with ESG strategy
- Prioritization of material issues affecting PI Advanced Materials's sustainability management
- Determination of ESG priorities through internal consultations, including working-level teams

## Material Issue Selection Process

PI Advanced Materials conducts materiality assessments to identify risks and opportunities within the business environment, actively integrating the results into its strategy and management decision-making processes. In particular, the company conducted a double materiality assessment to understand the impact of its business activities on society and the environment, and how external sustainability-related factors affect its operations. Led by the Sustainability Management Team, the assessment was based on global standards such as the Global Reporting Initiative (GRI). A pool of material issues was developed through comprehensive analysis of media research, competitor benchmarking, industry trends, and internal surveys. To determine key material issues, a survey was conducted in Q4 2024, targeting major stakeholders, including employees and partners to evaluate environmental/social and financial impacts. Based on the collected data, the materiality of each issue was quantified, and priorities were established. As a result, out of a total of 25 issues, nine key material issues were selected.

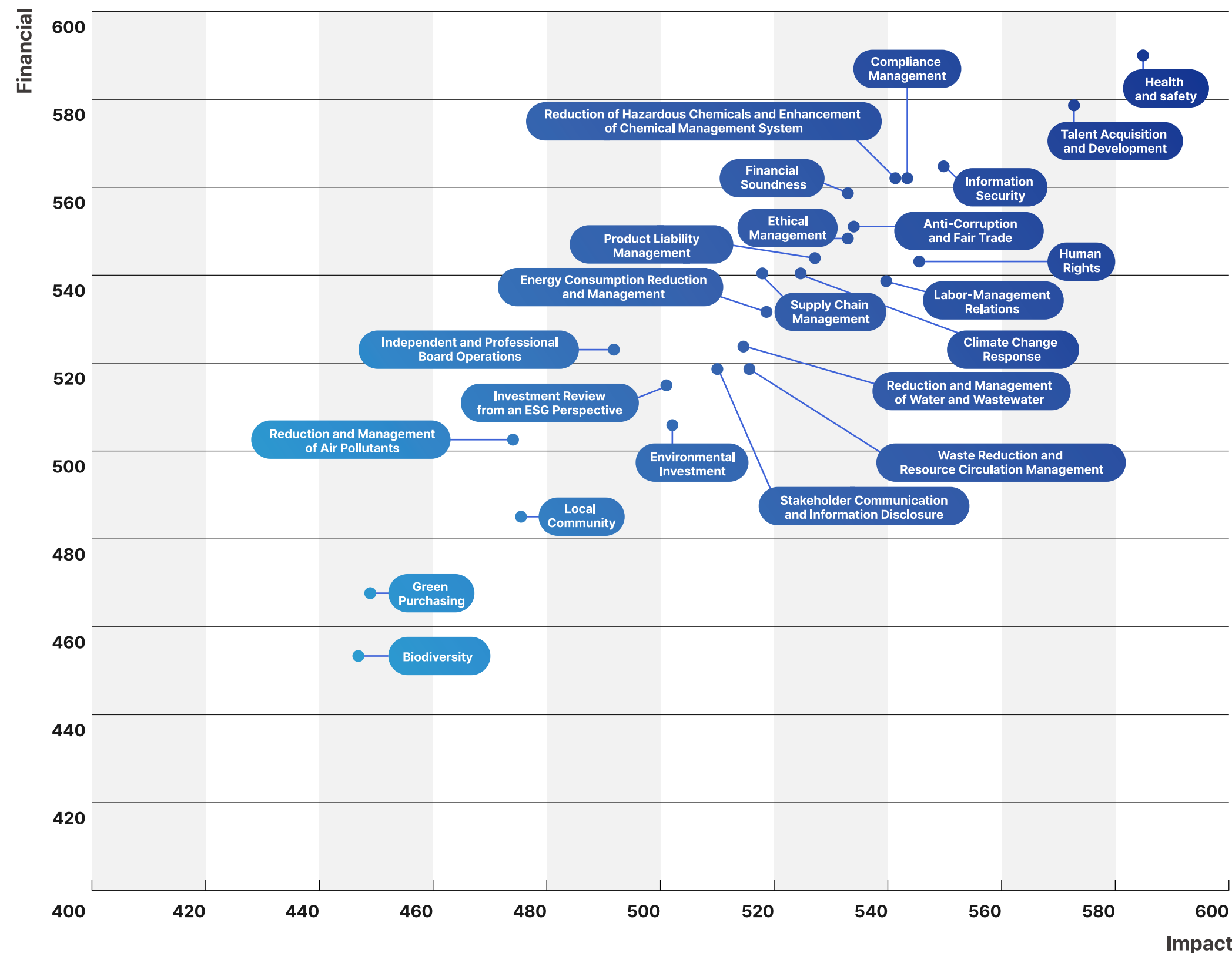
# Double Materiality Assessment

## Materiality Assessment Results

PI Advanced Materials assessed the significance of various sustainability issues by considering stakeholders' social and environmental concerns and business impacts. Through the double materiality assessment, nine key issues with the highest average scores across the categories were identified as priorities. These key issues include 'Health and Safety', 'Talent Acquisition and Development', and 'Information Security'.

PI Advanced Materials is committed to actively addressing these issues and will transparently disclose its strategies for each issue.

## Materiality Matrix



## Material Issues

Ranking	Category	Material Issue	Financial Materiality	Impact Materiality	Page	Compared with material issues in 2023
1	Social	Health and safety	High	High	41-43	Existing
2	Social	Talent Acquisition and Development	High	High	37-38	Existing
3	Social	Human Rights	Medium	Medium	36	Existing
4	Social	Information Security	High	High	61	Existing
5	Governance	Compliance Management	Medium	High	57	New
6	Governance	Financial Soundness	Medium	High	60	Existing
7	Environmental	Reduction of Hazardous Chemicals and Enhancement of Chemical Management System	Medium	High	29	Existing
8	Environmental	Climate Change Response	Medium	Medium	26-28	New
9	Environmental	Energy Consumption Reduction and Management	Medium	Medium	27	New

Embracing Green Innovation  
Shaping Social Impact  
Governing Responsibly

# Sustainability Performance

- Embracing Green Innovation
  - Environmental Management
  - Climate Change Response
  - Environmental Impact Control

## Environmental

# Embracing Green Innovation

PI Advanced Materials is committed to enriching lives through exceptional products. Beyond performance, we strive to generate positive value for humanity and the natural environment throughout the entire product lifecycle, from production to use to disposal. To bring this vision to life, we actively pursue eco-friendly management initiatives, including addressing climate change and promoting resource circulation. We remain dedicated to minimizing environmental impact at every stage of our operations. In addition, we are cultivating a sustainable workplace by implementing a systematic environmental management system, reinforcing our efforts toward a greener future.

# Environmental Management

## Environmental Management Policy Overview

PI Advanced Materials recognizes its responsibility to minimize the impact of its business activities on safety, health, and the environment. Guided by a strong sense of environmental stewardship, PI Advanced Materials proactively identifies direct and indirect environmental impacts across the entire product lifecycle and continuously strives to reduce them. To achieve this, the company designates environmental protection and occupational safety and health as core management priorities, with leadership committed to providing the necessary resources. All employees are expected to contribute to sustainable management by practicing the following principles.

1. Comply with environmental laws, international agreements, and related requirements.
2. Improve manufacturing processes and adopt advanced technologies to reduce environmental impacts.
3. Implement 3R (Reduce, Reuse, Recycle) initiatives to minimize pollutant emissions.
4. Disclose the environmental management policy to all stakeholders and seek their feedback.
5. Set specific environmental goals and monitor implementation progress.
6. Provide training for employees on the documentation of the safety, health, and environmental management system.

## Environmental Management System Overview

PI Advanced Materials has established a comprehensive environmental management policy and systematically addresses environmental impacts in alignment with this policy. Since 2007, the company has implemented the ISO14001 Environmental Management System, effectively managing environmental impacts across all business activities, including products, services, and operational processes. To tackle key environmental challenges, such as water pollution, chemical usage, and waste generation during production, PI Advanced Materials has developed its own internal control processes, ensuring robust oversight and risk mitigation. In addition, since 2021, the company has operated a company-wide Health, Safety, and Environment (HSE) policy, designed to increase awareness among all employees about their environmental responsibilities and to actively promote environmentally responsible practices in daily operations.

## Environmental Management Activities



### Build Eco-Friendly Workplaces

- Conduct regular inspections and expand prevention facilities to reduce air pollutants
- Promote greenhouse gas reduction facilities investments



### Promote Resource Management and Circular Economy

- Achieve a 95% recycling rate of waste through effective resource recycling processes



### Develop Eco-Friendly Products and Technologies

- Develop eco-friendly and energy-efficient materials
- Increase adoption of renewable energy solutions



### Practice an Eco-Friendly Lifestyle

- Promote the use of eco-friendly products within the workplace
- Run campaigns to reduce the use of single-use items

# Environmental Management

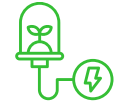

## Life Cycle Assessment(LCA)

PI Advanced Materials conducts environmental life cycle assessments (LCA) for its products to quantify environmental impact and strengthen sustainable competitiveness. LCA is a systematic, data-driven methodology that evaluates a product’s potential environmental impacts across its entire lifecycle—from raw material extraction to final disposal—by analyzing inputs, outputs, and related impacts.

As regulations and systems centered on LCA, such as the EU Carbon Border Adjustment Mechanism(CBAM), the Supply Chain Due Diligence Act, and climate disclosure requirements including Scope 3, continue to gain traction globally, PI Advanced Materials is proactively responding to these developments and reinforcing its regulatory compliance and market competitiveness. To begin, the company performed LCA on five products, using ISO14040s standards and the EF3.1 methodology for classification and characterization. Under the leadership of the Chief Financial/Strategy Officer, the Carbon Neutrality Task Force was established, including process experts from each plant, as well as cross-functional representatives from production, operations, procurement, sales, safety, environment, and sustainability management teams. Through this collaboration, we are embedding LCA practices across the organization and working to ensure the credibility of its outcomes. Starting in 2024, PI Advanced Materials plans to expand LCA coverage progressively, with the goal of completing LCA for 10 product types in 2025. The company also plans to use these assessments for environmental information disclosure across all products, providing fundamental data for evaluating PCF (Product Carbon Footprint) reduction activities. We are committed to refining our LCA systems and enhancing their reliability, while laying the groundwork for a decarbonized supply chain that extends beyond internal emissions reductions.


## Environmental Investment

PI Advanced Materials establishes an annual investment plan for environmental facilities and equipment, reinforcing its commitment to sustainable growth. These investments focus on improving energy efficiency and reducing emissions. In 2024, we invested in the installation of a chemical leak prevention system and enhancements to wastewater reuse infrastructure to drive energy efficiency. PI Advanced Materials will continue to advance sustainable practices through ongoing investments and system upgrades.

Unit: KRW million	 Environment/ Energy	 Waste
<b>2021</b>	<b>830</b>	<b>3,683</b>
<b>2022</b>	<b>864</b>	<b>4,770</b>
<b>2023</b>	<b>366</b>	-
<b>2024</b>	<b>346</b>	-

## Purchase of Eco-Friendly and Green Products

PI Advanced Materials is committed to building a sustainable management system through collaboration with stakeholders. As part of this effort, the company prioritizes the procurement of eco-friendly products and promotes purchases of green product in line with its own 'Green Product Purchase Guidelines'. In 2024, the company purchased green products worth a total of KRW 1.61 million, such as recycled paper. In the future, PI Advanced Materials plans to expand its green procurement efforts to include items directly and indirectly related to products, such as recycled packaging materials. Through these initiatives the company aims to foster an eco-friendly workplace and support the growth of the green product market.

Unit: KRW 10,000	 Eco-friendly and green product purchase status
<b>2022</b>	<b>1,026</b>
<b>2023</b>	<b>186</b>
<b>2024</b>	<b>165</b>

# Climate Change Response

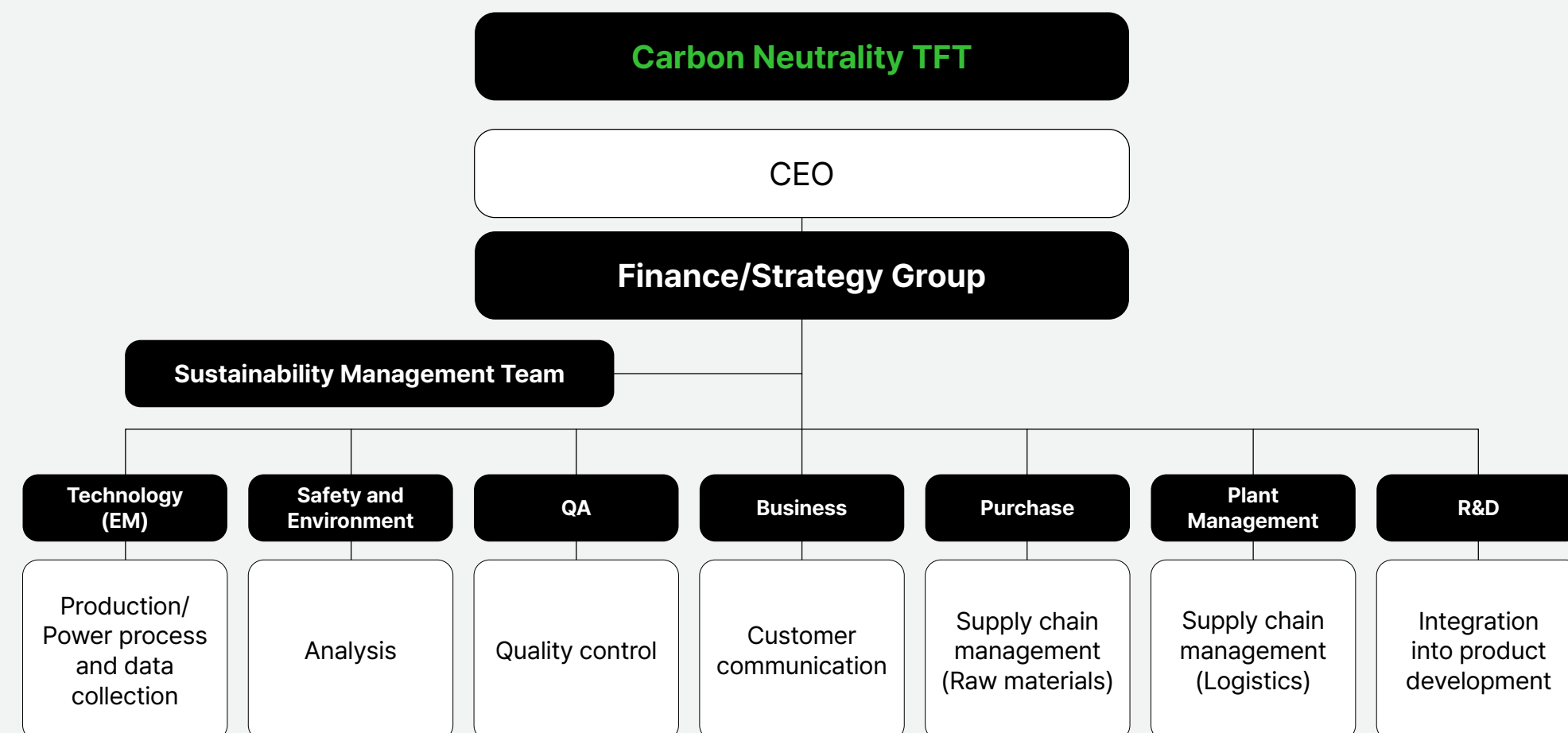
## Governance

PI Advanced Materials has established a dedicated organization and operational system for managing the impacts of climate change.

The dedicated organization leads initiatives aligned with the company’s climate change response strategy. These efforts go beyond regulatory compliance and enable informed decision making that integrates climate considerations into our core business strategies, including major facility investments. Additionally, PI Advanced Materials

identifies and manages financial risks and opportunities related to carbon emissions rights.

To support data-driven climate action, the company has implemented a greenhouse gas inventory system to collect and organize relevant emissions data. In 2024, the company took the first step toward carbon reduction by conducting Life Cycle Assessment (LCA) of five products. Based on these assessments, the company is currently formulating targeted strategies to reduce carbon emissions at the product processing stage.



\*Organization as of 2024

## Strategy

In alignment with global carbon neutrality its goals and declarations, PI Advanced Materials is actively exploring greenhouse gas reduction across entire value chain and is laying the groundwork for carbon neutrality and Scope 3 emissions management at its business sites. Beginning with the implementation of Life Cycle Assessment (LCA), PI Advanced Materials plans to set carbon neutrality targets and establish a roadmap in 2025, followed by energy efficiency initiatives to achieve these targets starting in 2026. To ensure the effectiveness of its mid- to long-term climate actions, the company is also pursuing participation in voluntary initiatives aimed at enhancing transparency.

### Short-Term Roadmap for Climate Change Response



## 2024

- Conduct product LCA and environmental impact assessment
- Establish a governance for a carbon neutrality roadmap



## 2025

- Establish carbon neutrality goals and strategies
- Develop emissions reduction strategies for Scope 1 and 2
- Complete a carbon neutrality roadmap



## 2026

- Promote process improvement and efficiency in line with carbon neutrality action plans

### Strengthen Technology-Based Response Strategies

PI Advanced Materials signed a Memorandum of Understanding (MOU) with the Graduate School of Carbon Neutrality at UNIST in October 2024 to accelerate progress toward carbon neutrality. The two parties will collaborate on a range of initiatives, including the development of carbon neutrality policies, joint research projects, and talent development.

The agreement aims to accelerate the commercialization of next generation carbon neutral technologies such as Carbon Capture, Utilization, and Storage (CCUS), hydrogen, and renewable energy. By bringing academic research into practical application at industrial sites, PI Advanced Materials seeks to drive technological innovation while addressing environmental challenges.

# Climate Change Response

## Responding to Climate Change

PI Advanced Materials is actively addressing climate change as part of its mission toward a sustainable future. The company systematically manages key environmental factors, including air quality, energy consumption, and water resources to minimize its environmental footprint. A core focus is on maintaining a robust greenhouse gas inventory, with transparency ensured through third-party verification. PI Advanced Materials also implements targeted initiatives to reduce carbon emissions through energy saving measures and strategic facility investments. In parallel, the company promotes a range of environmental protection and energy conservation projects. These efforts play a critical role in building a healthier and more sustainable world for future generations.

## Greenhouse Gas Management

PI Advanced Materials recognizes climate change as a critical challenge and embraces it as a core principle of sustainable management. The company is actively implementing the following initiatives to reduce greenhouse gas emissions:

### 1. Greenhouse Gas Inventory Management

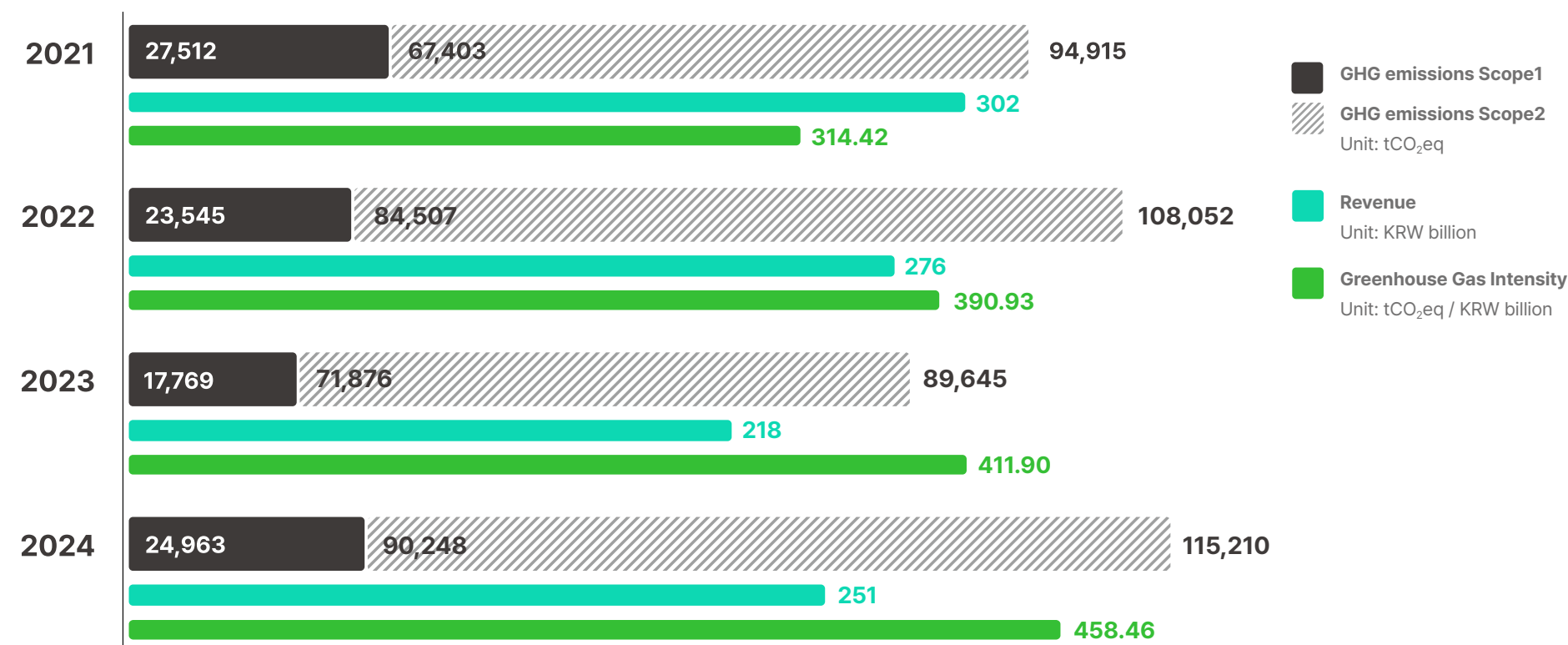
PI Advanced Materials has established a comprehensive greenhouse gas inventory system to manage Scope 1 and Scope 2 emissions. This system enables the accurate identification of both direct and indirect emissions and supports the development of data-driven reduction strategies.

### 2. Greenhouse Gas Reduction Plan

Each business site develops a reduction plan and integrates reduction targets into its key performance indicators (KPIs).

### 3. Greenhouse Gas Emission Trading

As a designated entity under the emissions trading scheme, PI Advanced Materials actively complies with relevant policies and regulations and continues to enhance its related operational activities. Through these systematic efforts, PI Advanced Materials is contributing to the mitigation of global warming and reinforcing its commitment to a sustainable future.

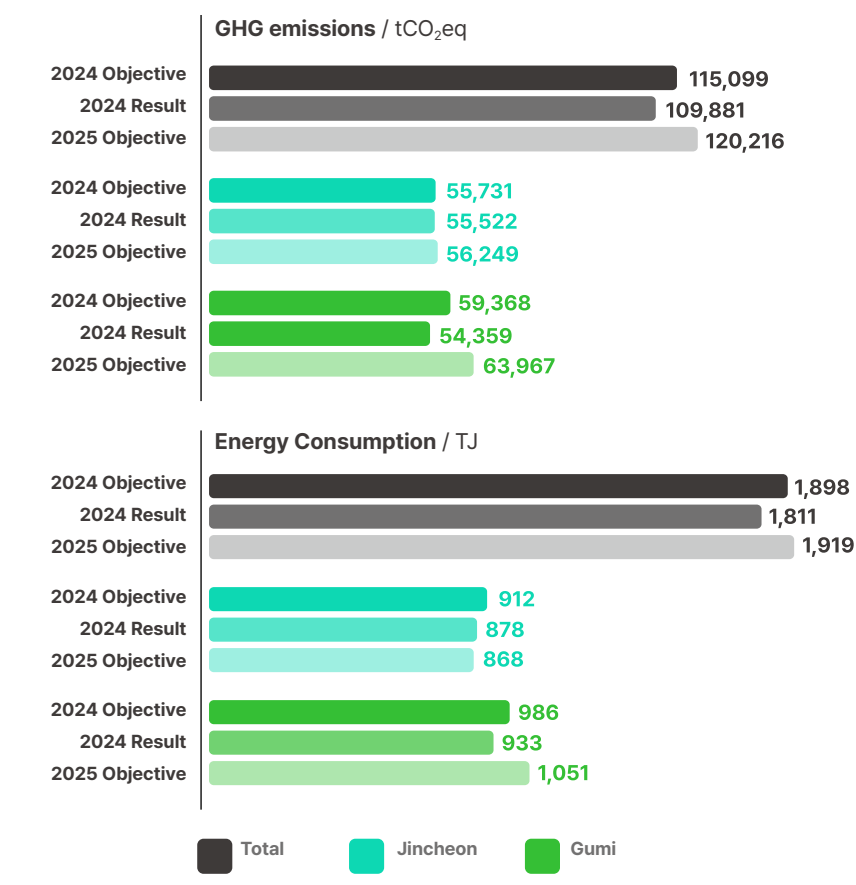
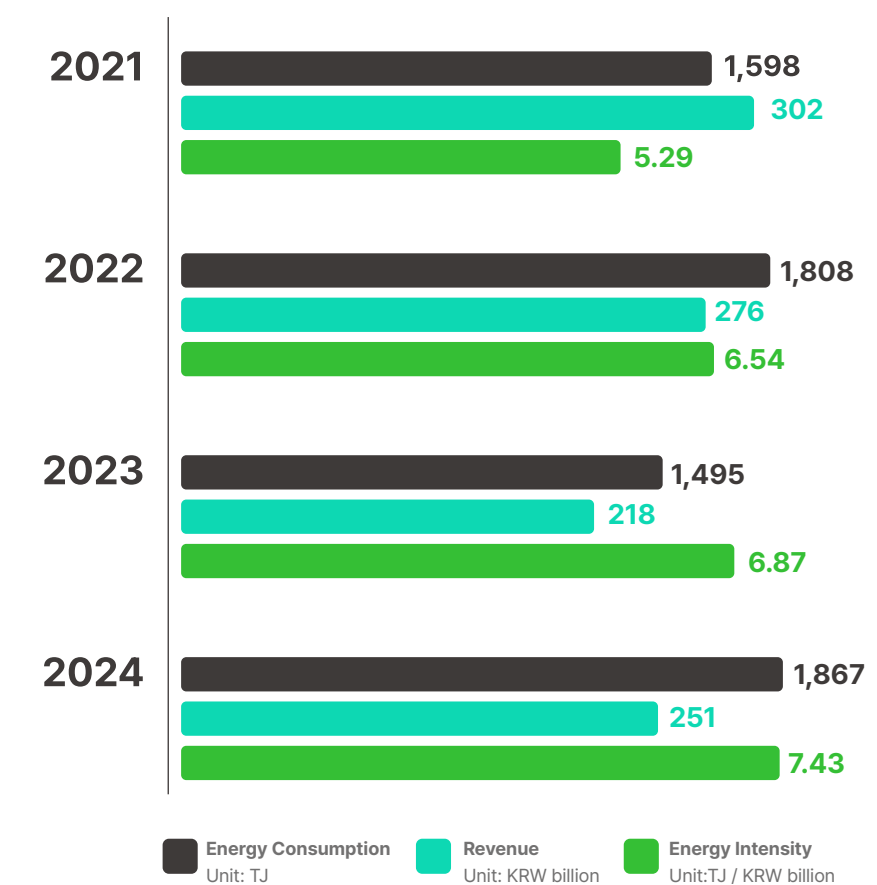


\*Corrections have been made to figures that were misentered in the previous year. Values were truncated below the decimal point.  
 \*The total greenhouse gas emissions may differ from the sum of emissions reported by individual sites due to rounding at the site level prior to company level aggregation.  
 \*Based on Korean GHG accounting standards (2024 Statement)  
 \*Since 2022, the steam consumption figures at the Gumi plant have been corrected, resulting in changes to the total amount.

## Energy Management

Excessive energy consumption is a major contributor to energy climate change, making it essential for companies to implement effective policies that reduce carbon emissions and promote the sustainable use of energy. PI Advanced Materials has established a comprehensive energy management system aimed at enhancing energy efficiency and minimizing carbon emissions. The company continues to invest in initiatives, such as expanding LED lighting across workplaces and introducing high-energy efficiency equipment. Through regular monitoring and performance

tracking, the company identifies energy saving opportunities and achieves measurable reductions in carbon emissions. In 2024, overall energy consumption increased compared to the previous year due to factors such as test runs of new production lines, higher utilization rates, and greater cooling demand caused by unusually high temperatures. Despite these challenges, PI Advanced Materials is committed to reducing long-term energy consumption by minimizing utility consumption relative to production output and implementing energy efficiency improvements through process optimization.



\*Excluding the Seoul office  
 \*Figures based on steam consumption at the Gumi plant prior to correction

# Climate Change Response

## Climate Change Risk Analysis



### Identification of Climate Change Risk

- Continuously monitor the impact of climate change across various sectors
- Identify industrial and operational risks by analyzing regulatory trends, stakeholder opinions, and other relevant factors



### Assessment of Risks and Opportunities

- Assessment the expected timeframes of risk impacts (short, medium, and long term) along with their financial implications
- Evaluate identified risks and opportunities



### Risk Mitigation and Opportunity Optimization

- Track the effectiveness of risk mitigation strategies to assess progress in risk management
- Develop follow up action plans for implementation



### Development of Risk Mitigation Strategies

- Gather input from relevant teams regarding identified risks
- Develop risk mitigation strategies aligned with the ESG framework

Category	Risk Factor	Expected Risk	Financial Impact	Response Strategy	Timeframe	
Physical Risk	<b>Acute</b>	<b>Rising frequency of extreme weather events</b>	Loss of business sites and infrastructure caused by natural disasters	Losses from production delays due to site damage	<ul style="list-style-type: none"> <li>• Establish emergency protocols and conduct routine safety audits</li> <li>• Develop flexible production plans to adapt to changing conditions</li> </ul>	Short-Term
	<b>Chronic</b>	<b>Rising temperatures</b> <b>Depletion of resources, including water shortages</b>	Rising energy costs from the increased load on cooling and ventilation systems in industrial operations	Rising production costs driven by increased power consumption	<ul style="list-style-type: none"> <li>• Establish a system to manage climate risks</li> <li>• Invest in energy-efficient and low-carbon technologies</li> <li>• Enhance monitoring systems to ensure sustainable resource management</li> </ul>	Mid/Long-Term
Transition Risk		<b>Rising carbon pricing due to new GHG regulations and carbon taxes</b>	Rising costs of emission allowances driven by increasing carbon credit prices	Rising business costs due to investments in emissions reduction technologies	<ul style="list-style-type: none"> <li>• Enhance energy efficiency through production process optimization</li> </ul>	Mid/Long-Term
	<b>Policy and Regulation</b>	<b>Increased scope and rigor in mandatory disclosure of GHG emissions data</b>	Risk to data accuracy arising from the expanded disclosure obligations including scope 3	Rising costs for setting up data collection infrastructure	<ul style="list-style-type: none"> <li>• Implement a Scope3 emissions management system to ensure transparency</li> </ul>	Mid/Long-Term
		<b>Tightening of environmental regulations</b>	Stricter environmental regulations on-site and externally	Penalties imposed upon detection of unlawful activities	<ul style="list-style-type: none"> <li>• Conduct legal reviews and integrate relevant policies within the ESG management framework</li> </ul>	Short-Term
	<b>Market and Technology</b>	<b>Establishing and executing strategies to reduce carbon footprint</b>	Market share loss from failing to meet demands	Increased expenses from adopting low-carbon energy sources	<ul style="list-style-type: none"> <li>• Calculate product carbon footprints to identify major emission sources and define targeted reduction strategies</li> </ul>	Mid/Long-Term
	<b>Reputation</b>	<b>Demands for compliance from global environmental initiatives</b>	Negative impact on internal and external perceptions of corporate performance	Potential loss of investors and customers	<ul style="list-style-type: none"> <li>• Strengthen responses to global initiatives such as CDP and TCFD by increasing transparency in ESG disclosures</li> </ul>	Short-Term

Embracing Green Innovation

# Environmental Impact Management

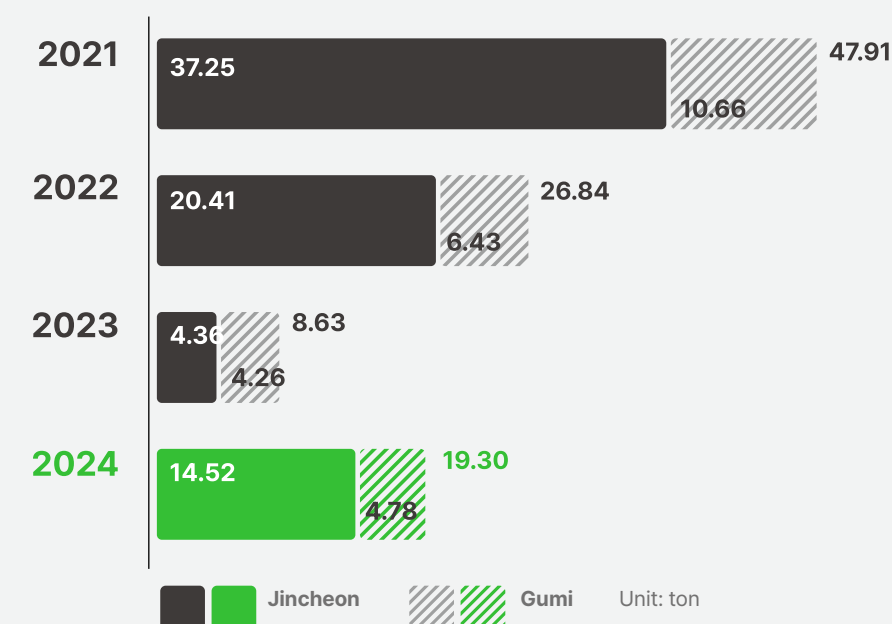
## Chemical Substance Management Overview

PI Advanced Materials uses a variety of chemicals in the manufacturing of PI films and in research activities. To ensure comprehensive management, the company has established a systematic internal process covering the entire chemical lifecycle, from receipt and use to disposal. When introducing new chemicals, the company conducts a legal review and sample testing based on the MSDS and RoHS regulated substance analysis report. The new chemical is then registered through internal approval procedures. At the plants and the research center, safety inspections of hazardous chemical handling equipment are conducted at least once a week.

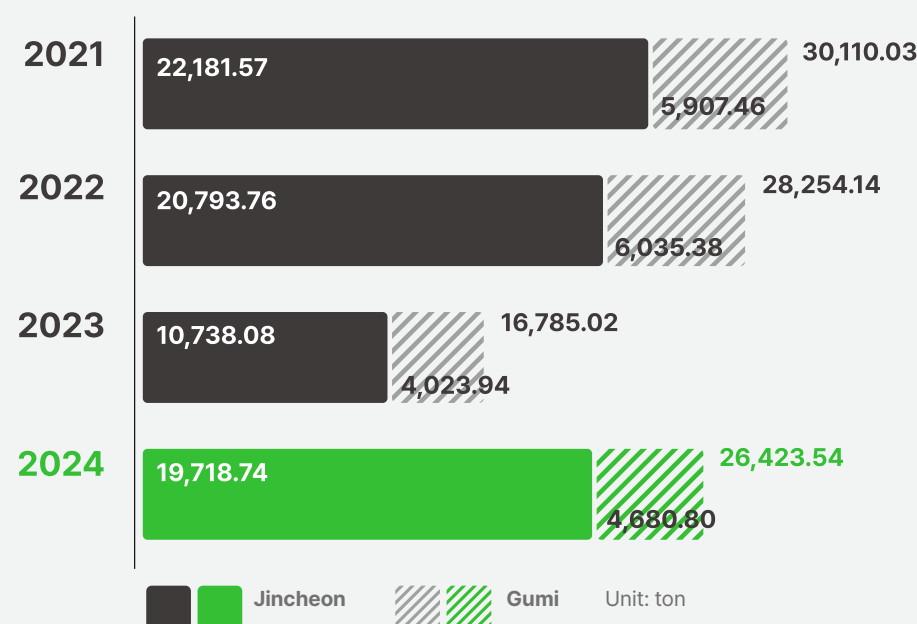
Additionally, all employees participate in chemical safety education and accident response training

to prevent safety incidents. To minimize the risk of leaks or spills during chemical use, strict storage and handling protocols are enforced. Used chemicals are disposed of through legally compliant procedures. For certain volatile substances, a two-stage treatment utilizing combustion facilities (RTO) and scrubber systems is applied to ensure that final emission concentrations are maintained at 0 ppm. To further reduce environmental input, certain solvents are recovered and recycled as raw materials, contributing to both cost savings and waste reduction. These chemical management initiatives have a positive impact on the environment and local communities. PI Advanced Materials remains committed to advancing its efforts to protect the sustainable environment for the future.

## Chemical Substance Emissions

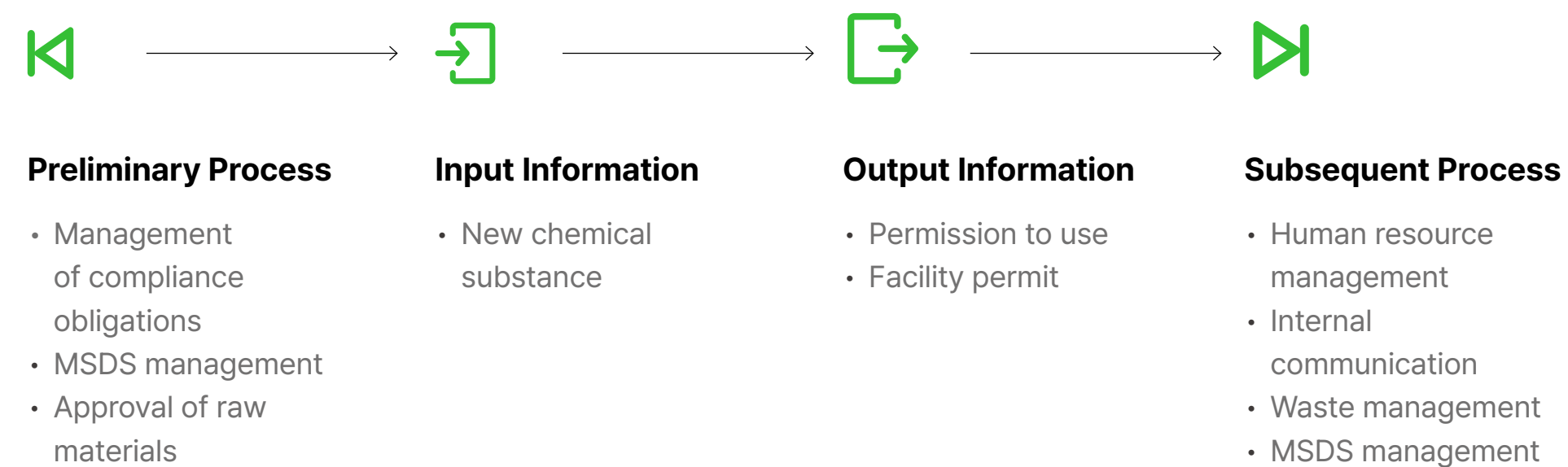


## Usage of Hazardous Chemicals



## Chemical Substance Management System

PI Advanced Materials has established and operates a structured system of responsibility and procedures to ensure compliance with regulatory standards at every stage of chemical handling, including manufacturing, storage, import, and use. This approach proactively mitigates health and environmental risks to various stakeholders, including employees, customers, and local communities. Furthermore, the company strengthens its management system to enable a swift response in the event of an accident.



## Management of Environmentally Hazardous Substances in Products

	Certification Standards	Certification Coverage
RoHS <sup>1)</sup>	Regulations on the use of ten major hazardous substances in electronic products.	SGS All products / Annual
REACH <sup>2)</sup>	Regulates restricted, authorized, and candidate substances (SVHC <sup>3)</sup> ) under REACH due to high risk to human health/ environment.	

1) RoHS: Restriction of Hazardous Substances Directive  
 2) REACH: Registration, Evaluation, Authorization and Restriction of Chemicals  
 3) SVHC: Substance of Very High Concern

## Chemical Spill Incident and Emergency

On March 15, 2024, a chemical leak involving N,N-Dimethylformamide (DMF) occurred at the Jincheon plant. Emergency containment measures were immediately implemented, and the incident was promptly reported to the relevant authorities. There were no human casualties. The incident was attributed to human error by an external contractor and resulted in fines totaling KRW 16.4 million for violations of safety and environmental regulations. All penalties have since been paid. To prevent recurrence, management systems at all sites were reviewed, and KRW 440 million was invested in environmental safety improvements, including containment upgrades and trench expansions. We also conducted safety, health, and environmental training for employees, led by external experts. Additionally, HSE specialists from the Arkema Group conducted comprehensive on-site inspections to identify potential risks and implement corrective measures, further strengthening our safety management systems.

# Environmental Impact Management

## Site Pollution Management

PI Advanced Materials recognizes that effective pollution management within its facilities is critical to protecting the surrounding environment. To proactively prevent and control potential source of pollution, the company implements comprehensive measures, placing particular emphasis on managing air and water quality, waste reduction, and soil contamination control as core pillars of its environmental protection efforts. In the area of air pollution management, PI Advanced Materials identifies and effectively controls emission sources including hazardous gases and particulate matter generated within its facilities. Through air quality monitoring, the company evaluates pollution levels and implements targeted corrective actions to minimize environmental impact. To prevent water pollution, wastewater is meticulously managed, ensuring strict compliance with treatment standards. In parallel, the company actively pursues recycling and resource recovery opportunities while ensuring all waste is disposed of in full compliance with legal requirements. In addition, we are strengthening internal management standards and continuously optimizing our operational practices to prevent soil contamination.

PI Advanced Materials is upgrading relevant facilities to reduce pollutant emission and aims to lead in sustainable environmental protection by establishing its own environmental management standards that go beyond regulatory requirements.

## Soil Contamination Management

To enhance environmental risk management at its facilities, PI Advanced Materials conducts regular soil contamination inspections. Each plant undergoes soil testing once every two years, and all tests have confirmed the absence of pollutants. The company remains committed to protecting the surrounding environment and ensuring regulatory compliance through continuous monitoring and proactive environmental stewardship.

### Soil Contamination Inspection History

	2021	2022	2023	2024
Jincheon plant	●		●	
Gumi plant		●		●

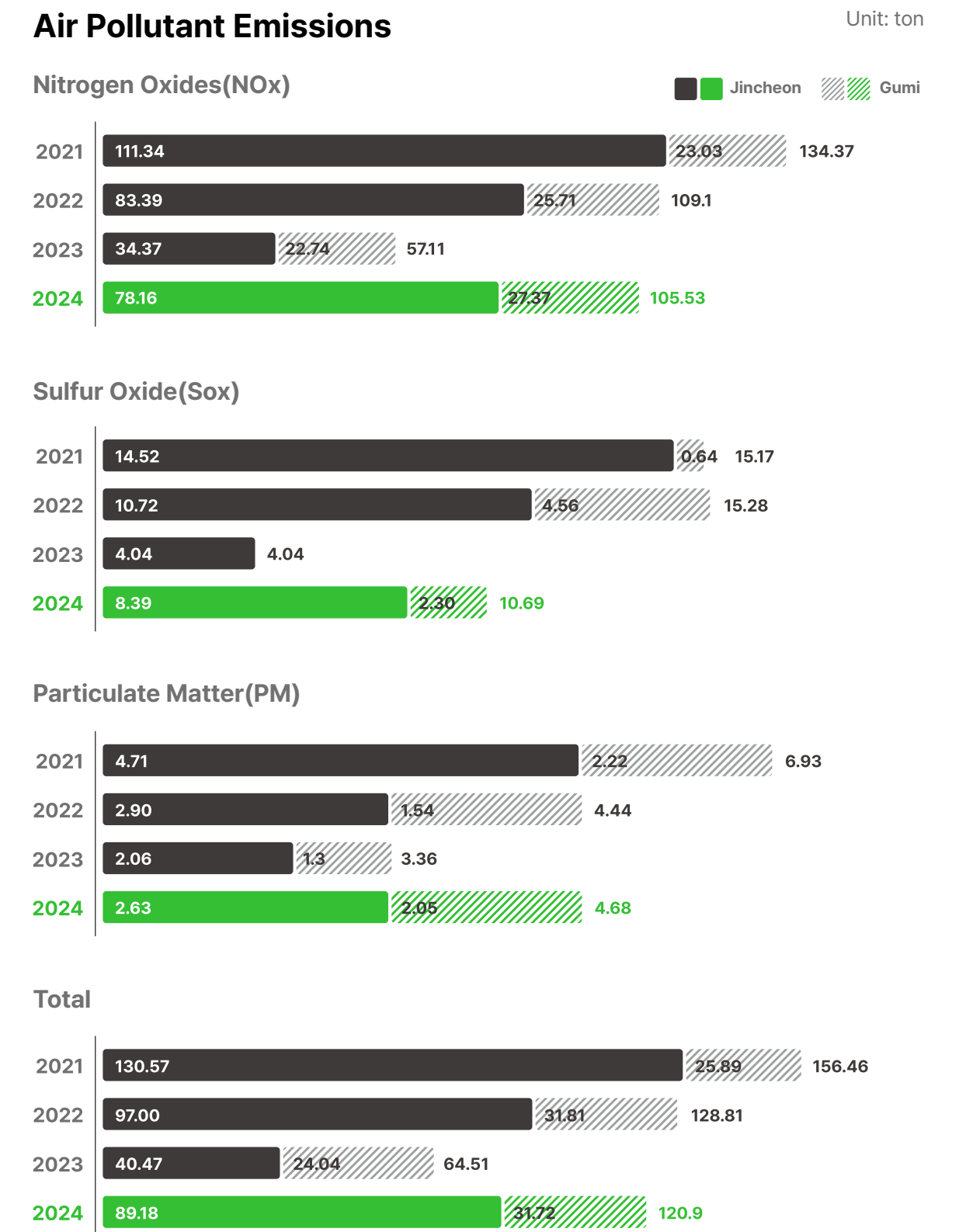
## Air Pollution Management

At PI Advanced Materials' plants, air pollutants such as nitrogen oxides (NOx), sulfur oxides (SOx), and particulate matter are released during the product manufacturing process. To minimize these emissions, the company has established a comprehensive management process.

First, scrubber (absorption tower) has been installed to reduce odors and air pollutants effectively. Additionally, the company regularly measures and monitors air pollutant concentrations through accredited third-party agencies and operates air pollution control facilities.

PI Advanced Materials has established internal management standards that limit pollutant concentrations to less than 70% of legally permitted levels. This proactive approach underscores the company's commitment to leading air pollution control through preventive and responsible environmental management.

### Air Pollutant Emissions



\* Based on the Air Emission Source Management System (SEMS) Standards

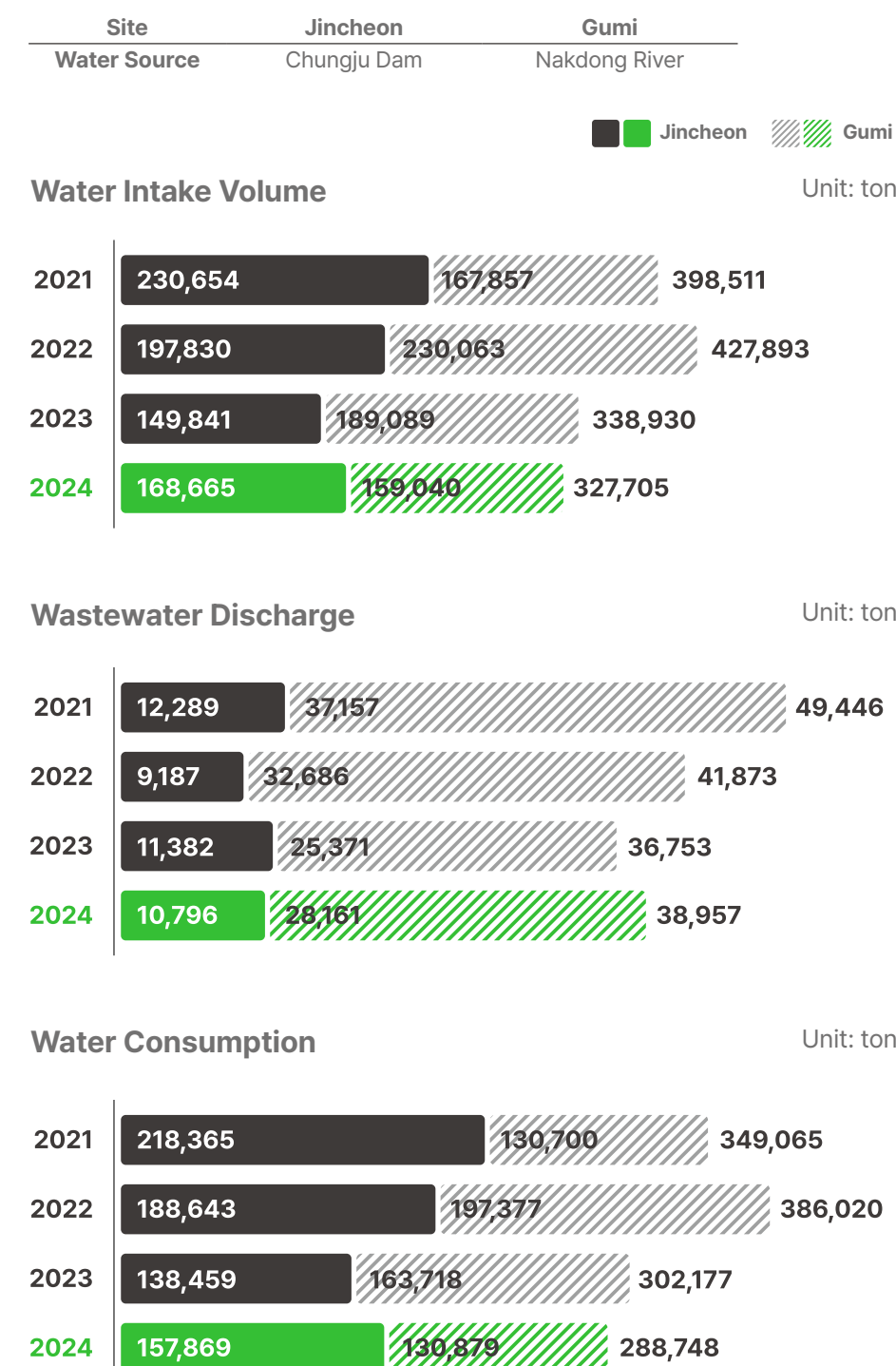
Embracing Green Innovation

# Environmental Impact Management

## Water Resource Management

PI Advanced Materials recognizes that water resources are essential to human life and sustainable development. The company is committed to systematic water resource management, aiming to ensure stable and sustainable water supplies while promoting conservation and efficient use. As part of its environmental stewardship, water is also managed as a vital component of ecosystem preservation and biodiversity. To support these goals, PI Advanced Materials has implemented a comprehensive water resource management system, conducting regular monitoring and assessments of both water quality and quantity. In the event of any issues, the company promptly takes corrective actions to ensure optimal water conditions. Additionally, various programs are implemented to encourage efficient and economical water usage. As part of its resource-saving efforts, clean wastewater generated from production processes is reused as cleaning water, significantly contributing to water conservation. PI Advanced Materials also partners with local communities to raise awareness about water protection, promoting sustainable water management through diverse initiatives. Through these continued efforts, the company actively contributes to water conservation and environmental protection, working toward a sustainable future.

### Water Resource Management Status



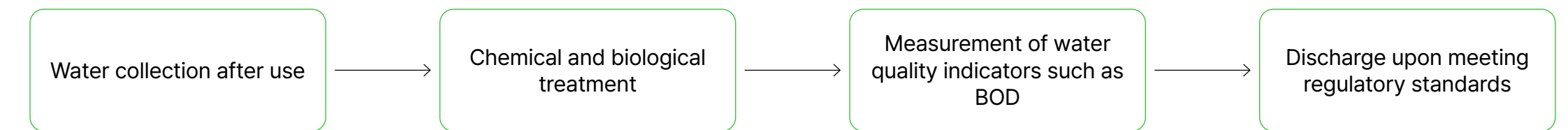
\* Water consumption = Intake volume - Discharge volume  
 \* Jincheon Plant figures for 2021-2023 revised based on updated site measurements.

## Water Pollution Management

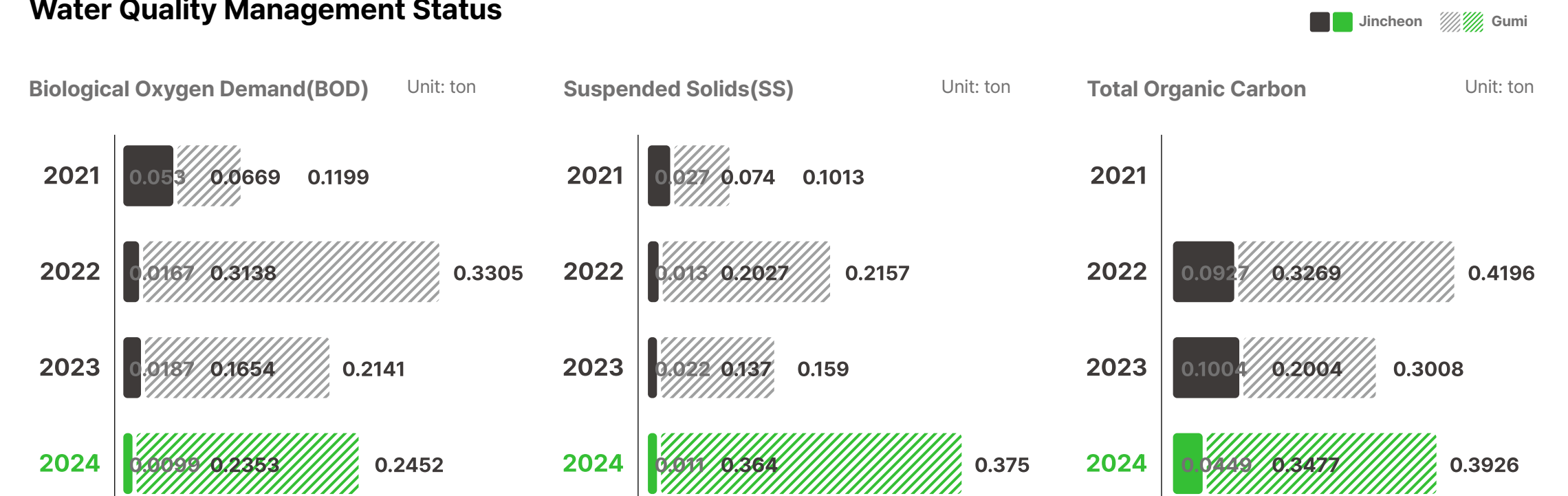
PI Advanced Materials is committed to managing pollutants generated during production and processing activities to minimize water pollution. Regular water quality monitoring and assessments are conducted to evaluate water conditions. If any abnormalities are detected, immediate corrective actions are taken. Furthermore, PI Advanced Materials strictly complies with all relevant environmental regulations and laws, contributing

to the preservation of water quality. To enhance its water management capabilities, the company continuously improves its management systems and provides education for employees. PI Advanced Materials will continue to lead in preserving clean water resources and promoting a sustainable environment through systematic water pollution management initiatives.

### Water Quality Management Procedures



### Water Quality Management Status



\* TOC has been measured since 2022.

# Environmental Impact Management

## Waste Management

PI Advanced Materials has established and operates a comprehensive waste management policy aimed at environmental protection and sustainable resource utilization. This policy is designed to minimize waste generation while promoting the reuse of resources and fostering a circular economy.



### 1. Waste Classification and Storage

Waste generated from operations is safely stored according to its specific characteristics through the company's waste management system. These procedures are designed to ensure the safe handling of waste and to maximize opportunities for recycling.



### 2. Waste Treatment and Recycling

All waste is treated in compliance with relevant environmental regulations. Recyclable materials are subject to quality inspections before being reintegrated into the production cycle. The Jincheon and Gumi plants operate advanced systems that recover and recycle various by-products, including exhaust gases, contributing to a circular economy through efficient resource utilization and added economic value.



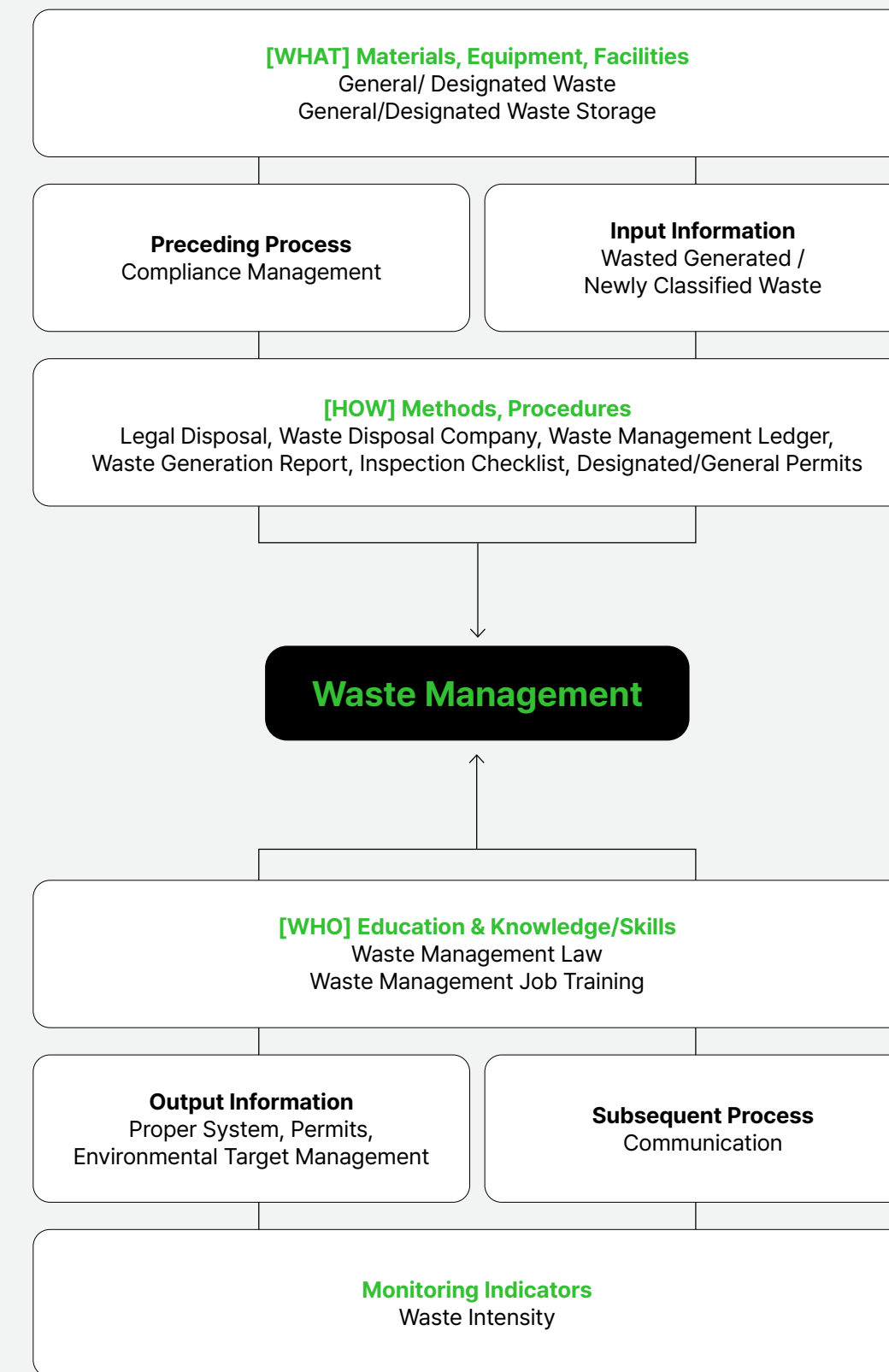
### 3. Research and Development for Waste Reduction

To further reduce waste generation, PI Advanced Materials continues to invest in R&D, enhance recycling technologies, and strengthen collaboration with external partners. These initiatives support the development of new technologies, improve production efficiency, and play a significant role in mitigating environmental impact.

## Monitoring and Improvement of Waste Management Performance

PI Advanced Materials operates a comprehensive monitoring system to evaluate the efficiency and effectiveness of its waste management practices. This system routinely reviews treatment processes and utilizes the recycling rate as a key performance indicator to measure progress. Insights gained through ongoing monitoring are leveraged to improve operational processes and inform policy development. In addition, PI Advanced Materials sets clear goals for improving recycling performance and establishes targeted strategies to achieve continuous improvement.

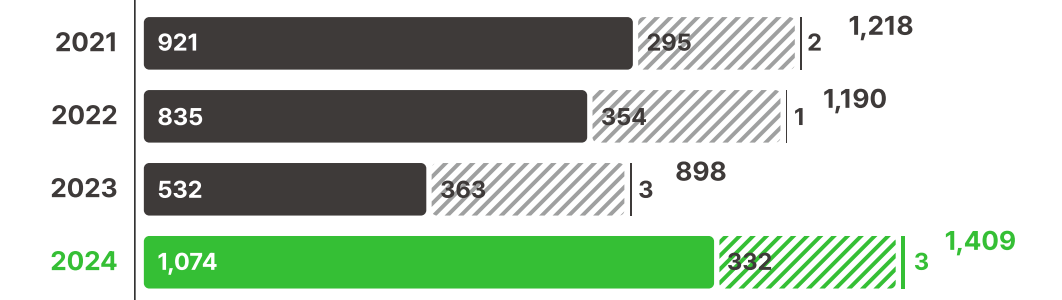
## Management Process



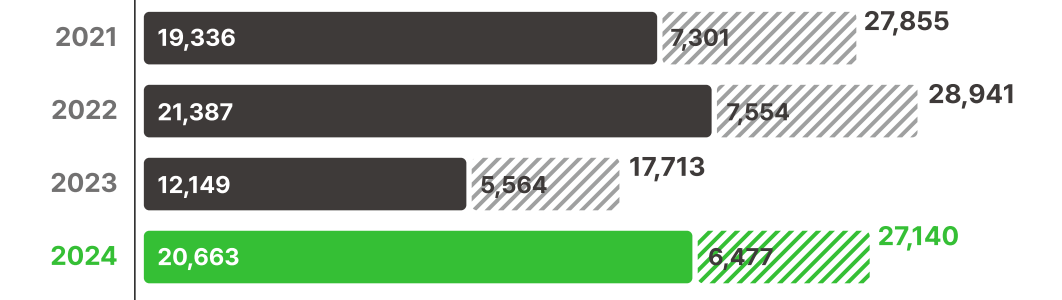
## Waste Generation Volume

Unit: ton

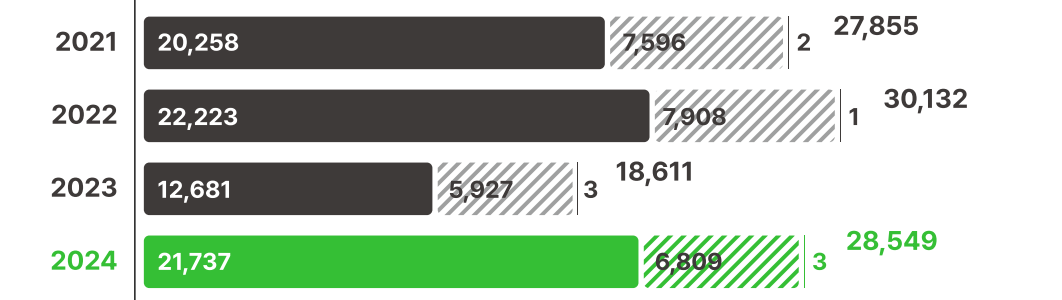
### General Waste Generation



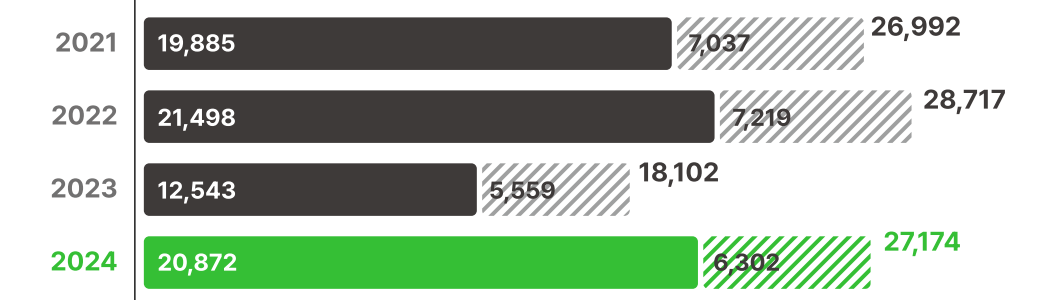
### Designated Waste Generation



### Total Waste Generation



### Waste Recycling Volume



■ Jincheon ▨ Gumi ▨ Seoul

# Environmental Impact Management

## Transition to a Circular Economy

PI Advanced Materials is advancing a circular economy through the implementation of an environmental management policy grounded in the 3R strategy (Reduce, Reuse, Recycle). This policy enables the extraction of reusable raw materials from production generated waste and their reintegration into the production cycle. This approach supports robust waste management and raw material recovery, reducing environmental impact and generating cost efficiencies. Through ongoing research and development, the company continues to reduce waste generation and increase raw material recycling rates to drive sustainable growth. Waste is classified and stored based on its characteristics, and all disposal activities are conducted in accordance with applicable regulations. Notably, the Gumi and Jincheon plants have adopted innovative systems for capturing exhaust gases during production and reusing them as raw materials, contributing to resource circulation and operational sustainability.

PI Advanced Materials is committed to identifying and implementing targeted reduction initiatives to increase its recycling rate and strengthen its eco-conscious management.

## Resource Recycling Status

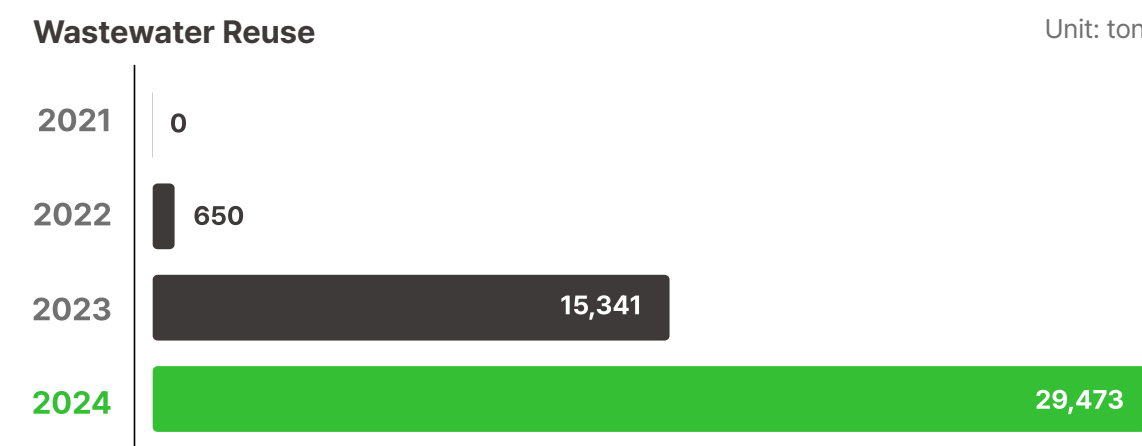
PI Advanced Materials is committed to reducing environmental impact by actively recycling waste generated during production, contributing to the advancement of a circular economy. In 2024, the company sustained a high recycling rate of 95.2% for reusable waste across all sites, demonstrating a strong alignment between environmental protection, resource circulation, and the foundation of sustainable management. To further strengthen circularity, PI Advanced Materials focuses on improving resource efficiency through process optimization and technology development. Each site implements customized recycling strategies designed to minimize materials waste. In particular, the company is continuously improving raw material utilization to reduce waste at its source while pursuing a variety of management approaches that maximize the value of recycled resources. In the future, PI Advanced Materials will continue to invest in R&D and innovative production practices to expand the resources virtuous cycle and advance the realization of a circular economy.

## Resource Recycling Process

PI Advanced Materials systematically manages waste generated at each site to maximize recycling efficiency. At the Gumi plant, organic solvents and liquid catalysts used as solvents and catalysts previously emitted as exhaust gases are recovered through in-house recovery facilities and then recycled as raw materials. Additionally, clean wastewater, including process cooling water, is collected and reused as washing water in cleaning towers. As a result, wastewater reuse increased dramatically from 650 tons in 2022 to 29,473 tons in 2024, approximately a 45-fold rise and a significant boost in resource efficiency. At the Jincheon plant, exhaust gases are condensed and liquefied before being supplied to external partners for reprocessing into reusable raw materials. These improvements have led to a system that simultaneously manages exhaust gas treatment and resource circulation effectively. Furthermore, the company is developing a powdering process to recycle residual PI films generated during manufacturing into materials for molding and graphite applications. This initiative is designed to convert film residues into high-value-added materials, further enhancing resource utilization. PI Advanced Materials remains committed to investment in and development of advanced recycling technologies. By reinforcing circularity within its production processes, the company is laying the groundwork for a more sustainable future.

## Circular Economy Performance Indicators

	Emissions	Recycled Volume	Rate
Unit	ton	ton	%
2021	27,855	26,922	96.7
2022	30,132	28,717	95.3
2023	18,611	18,102	97.3
<b>2024</b>	<b>28,549</b>	<b>27,174</b>	<b>95.2</b>



# Environmental Impact Management

## Biodiversity Preservation

PI Advanced Materials recognizes the vital role of natural ecosystems and integrates biodiversity preservations into its ethical and environmental management standards. By safeguarding the natural surroundings of its facilities, the company is dedicated to maintaining biodiversity and reinforcing a sustainable management framework. In anticipation of potential environmental impacts from facility expansions and upgrades, PI Advanced Materials conducts proactive assessments and incorporates mitigation strategies tailored to the ecological context of each site. The company engages in a range of "green management activities" to support biodiversity conservation, such as the preservation of riverside ecosystems and protection of native plant species. PI Advanced Materials remains committed to ongoing, responsible, and sustainable environmental stewardship.

## Conservation Activities

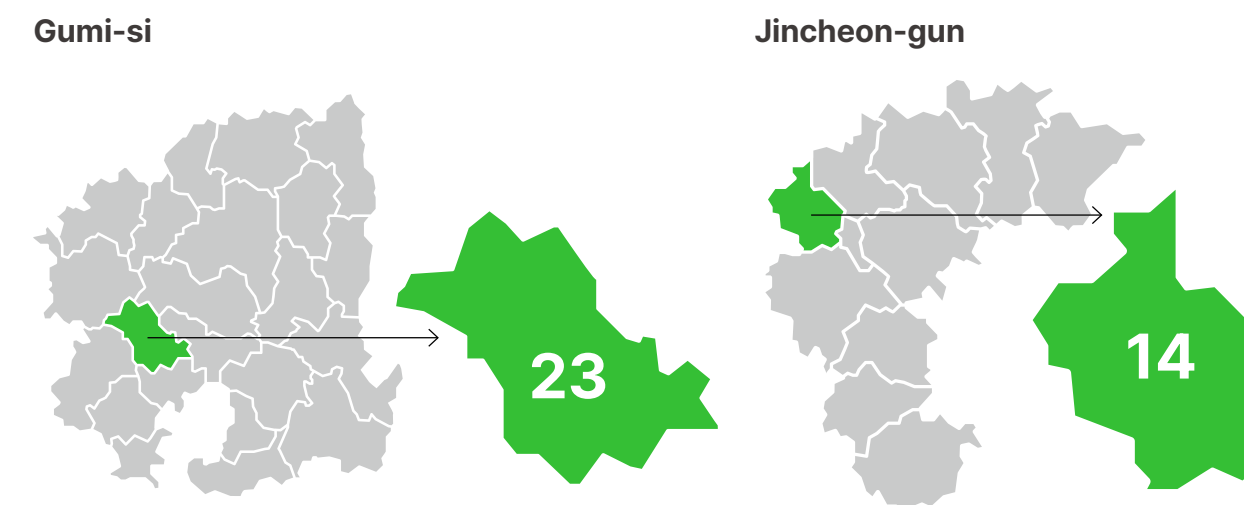
PI Advanced Materials conducts regular environmental maintenance activities each spring in the regions where its plants operate, demonstrating its commitment to biodiversity conservation and environmental stewardship. The company also routinely monitors the treatment and quality of water used at its sites, ensuring responsible resource management and protection of surrounding ecosystems. At the Jincheon plant, located near the Miho River where a variety of species inhabit, the company has strengthened its purification and environmental monitoring activities to preserve the local habitat. In parallel, the plant plans to deepen collaboration with relevant environmental organizations, reinforcing a shared responsibility for regional ecosystem health. In addition, PI Advanced Materials plans to pursue systematic management strategies to reduce pollutant emissions and waste discharge, underscoring its dedication to long-term ecological preservation and sustainable operations.

### Conservation Activities at the Jincheon Plant in 2024: Before and After



## Biodiversity Preservation Activities

To mitigate and responsibly manage the ecological impacts of its operations, PI Advanced Materials has conducted a comprehensive assessment of the ecological status and risks surrounding its production sites. As part of this effort, the company surveyed the presence of endangered species in nearby areas to better understand the environmental footprint of its facilities. The findings revealed that the Gumi region, where our Gumi plant is located, is home to 23 endangered species. In Jincheon, Chungcheongbuk-do, the site of Jincheon plant and R&D center, 14 endangered species were identified. Based on this analysis, PI Advanced Materials plans to designate priority sites for management and develop tailored response initiatives. These efforts are designed to address site-specific ecological risks and enhance the company's commitment to biodiversity preservation.



\* Source: National Institute of Ecology (2023), Statistical Data on Endangered Wildlife

## Major Endangered species near the Jincheon Plant



Miho Spine Loach (Endangered Wildlife Class 1)



Otter (Endangered Wildlife Class I)

- Shaping Social Impact
  - Human Rights Management
  - Talent Development and Competency Building
  - Corporate Culture and Labor Relations
  - Work-Life Balance
  - Safety and Health Management
  - Local Community Partnership
  - Supply Chain Management
  - Customer Satisfaction Management

## Social

# Shaping Social Impact

PI Advanced Materials places the highest priority on the safety and well-being of its employees, operating a comprehensive safety and health management system aimed at achieving a zero-accident workplace. Additionally, the company is also committed to fostering harmony with local communities through ongoing support initiatives. By emphasizing customer-centric product development and rigorous quality control, PI Advanced Materials consistently strives to build customer trust and ensure high levels of satisfaction.

# Human Rights Management

## Human Rights Policy

PI Advanced Materials upholds international human rights standards and integrates these principles into all management practices. The company affirms the dignity and equal rights of individuals as declared in the "Universal Declaration of Human Rights", and strictly prohibits discrimination on the basis of race, gender, skin color, language, religion, political beliefs, national origin, or social status. To cultivate a culture grounded in respect for human rights, PI Advanced Materials conducts regular employee training and actively promotes a fair, inclusive, and equitable workplace environment.

## Respect for Labor Human Rights

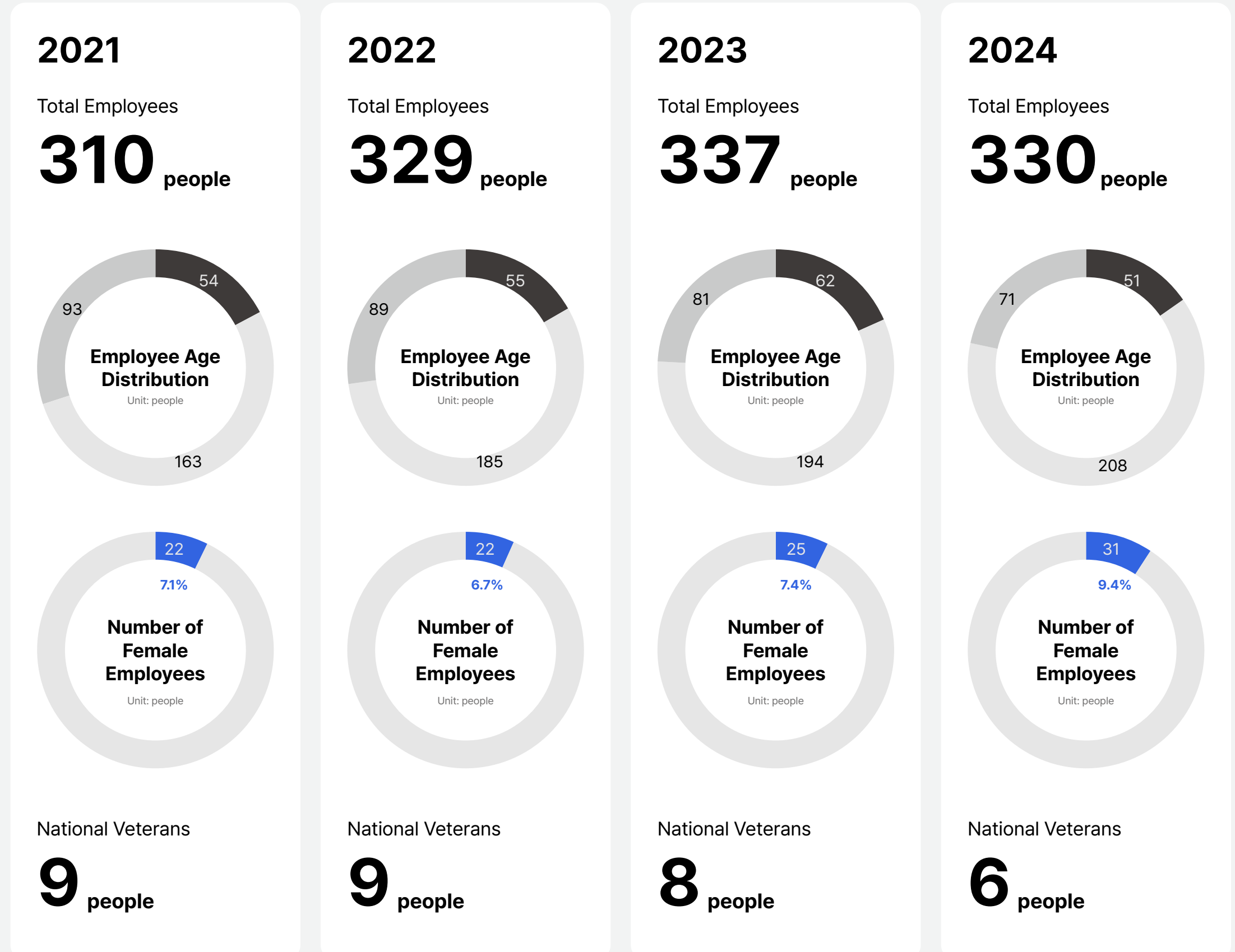
PI Advanced Materials strictly prohibits all forms of labor exploitation, including forced labor, child labor and unfair working conditions. The company is committed to fair compensation and equitable labor practices, ensuring compliance with legal employment age requirements. The company also operates safety education programs and comprehensive health and safety management systems to foster a secure and supportive work environment. Through these efforts, the company builds a respectful work culture that serves as a cornerstone for sustainable corporate growth.

## Respect for Diversity, Equity, and Inclusion

PI Advanced Materials is committed to upholding all relevant laws and regulations, including employment statutes, collective agreements, and the Labor Standards Act. The company fosters a culture of respect and recognition for individual differences, ensuring equitable access to opportunities for all employees. To eliminate discrimination and disadvantages within the workplace, PI Advanced Materials implements inclusive policies and conducts regular training programs that promote mutual respect and inclusion. Additionally, through its Code of Ethics and Supplier Code of Conduct, the company extends its commitment to human rights beyond internal operations, engaging suppliers and external stakeholders in fostering an inclusive and respectful business environment.

## Employee Diversity Status

From 20 to Under 30 Years Old
  From 30 to Under 50 Years Old
  50 Years Old and Above
  Female Employees



# Talent Development and Competency Building

## Ideal Talent

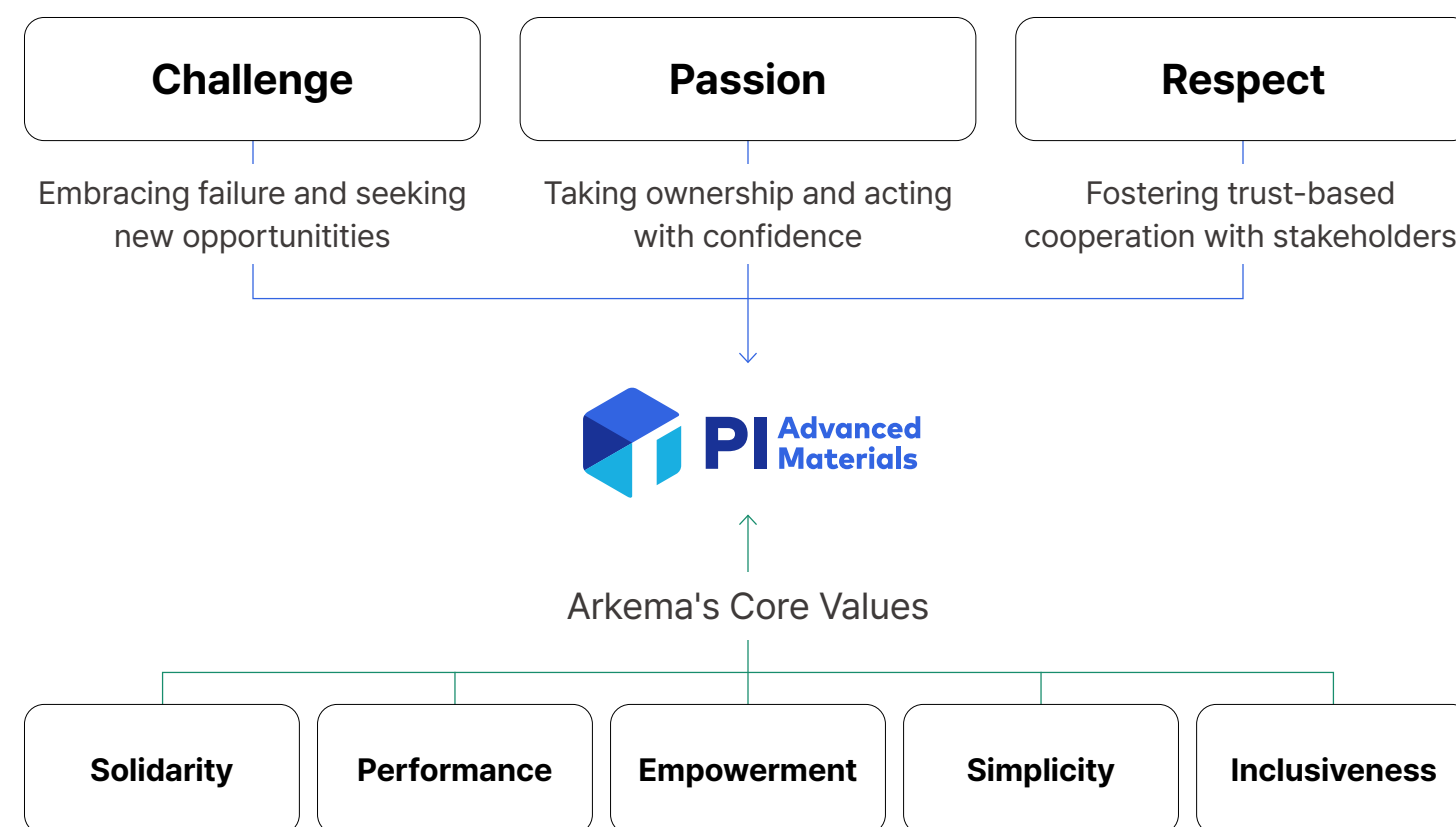
PI Advanced Materials is committed to cultivating talent that embraces change with agility and drives sustained growth, guided by its core values of Challenge, Passion, and Respect.

**Challenge:** Seeking new opportunities without fearing failure.

**Passion:** Taking proactive, responsible engagement in every task.

**Respect:** Building collaborative, trust-based relationships with diverse stakeholders.

Furthermore, PI Advanced Materials integrates the core values of its parent company, Arkema: Solidarity, Performance, Empowerment, Simplicity, and Inclusiveness into its talent development strategy. By aligning with these values, the company is establishing a sustainable system for nurturing leadership and innovation.



## HR Policy

PI Advanced Materials adopts an open and inclusive recruitment policy rooted in its core values of "Challenge, Passion, and Respect." Recognizing that innovation and sustainable growth originate from attracting and retaining top talent, the company offers equal opportunities to all applicants. Recruitment is conducted through fair and transparent processes with a focus on evaluating competencies. By fostering an environment where employees can fully realize their potential, PI Advanced Materials continuously enhances its long-term competitiveness and organizational sustainability.

## Training by Position

PI Advanced Materials operates a progressive HR framework that drives sustainable growth through continuous enhancement of employee competencies. By ensuring fair performance evaluations and equitable compensation systems, the company empowers individuals to define clear career paths and evolve into strategically valuable talent. The company actively promotes a talent development program rooted in autonomy and accountability, designed to meet the demands of a dynamic global industrial landscape. Recognizing talent development as a key driver of business competitiveness, PI Advanced Materials offers structured leadership programs tailored to various levels and roles. These initiatives focus on leadership building, internal networking, essential management skills, and cultivating a strategic business mindset. Additionally, PI Advanced Materials supports individualized career planning, embraces diverse backgrounds, and expands for opportunities global experiences. Through these efforts, PI Advanced Materials actively nurtures next-generation global leaders equipped to thrive in a rapidly changing business environment.

## Evaluation and Compensation

PI Advanced Materials ensures objective and equitable human resource management by evaluating employees' work performance and job competencies through both quantitative and qualitative assessments. The evaluation results inform key HR decisions, including promotions, placements, and compensations, designed to promote both employee growth and organizational advancement. Performance evaluations measure tangible contributions based on team-specific goals and individual KPIs, which align with the company's strategic objectives. Employees are encouraged to set bold and forward-looking goals to foster high performance. Competency evaluations assess the professional capabilities, mindset, and leadership potential required for success in each role. These are based on a structured competency model that reflects PI Advanced Materials' vision, business strategy, care values, and talent philosophy. Compensation is determined through a merit-based system, designed to enhance motivation and reinforce a culture that balances autonomy with accountability, ultimately strengthening the company's long-term sustainability.

# Talent Development and Competency Building

## Competency Development Program

PI Advanced Materials defines core competencies across three categories: common, job-specific, and leadership, and implements structured training programs to build the capabilities required at each level. Beyond practical training, the company promotes a culture of self-directed learning and encourages employees to identify strengths and development areas through a coaching system based on performance and competency evaluations. Furthermore, PI Advanced Materials has established an expert development framework for each job function and offers a wide array of learning opportunities, including MBA support, pathways for pursuing master's and doctoral degrees, and intensive training programs for key talent. The company plans to continuously strengthen its strategic learning and development systems to support ongoing growth and reinforce organizational resilience.

## Common Competency Training

PI Advanced Materials provides company-wide education programs centered on 'PI Value', enabling employees to internalize and apply the company's core values and ideal talent profile. This approach fosters capability development and organizational growth in line with strategic objectives. As part of its commitment to sustainable management, PI Advanced Materials conducts mandatory ethical and compliance training for all employees on a regular basis. Key modules include fair trade practices, anti-corruption measures, sexual harassment prevention, and personal data protection. Completion of these courses is required to promote responsible behavior and strengthen ethical decision-making. Additionally, onboarding programs for new hires and experienced employees cover the corporate vision, product training knowledge, foundational business skills and job specific expertise through a structured curriculum, facilitating smooth integration into the organization. To further support cultural assimilation and personal development, PI Advanced Materials operates a structured mentoring system that offers practical guidance and fosters meaningful connections across teams.

## Job-Specific Training

PI Advanced Materials offers job-specific training programs designed to cultivate core competencies required for each job function and role. By partnering with professional training institutions and engaging external experts, the company provides practical, hands-on learning opportunities that elevate job-specific expertise. In addition, the company offers online training platforms and job-specific learning content, allowing employees to select and develop the competencies most relevant to their roles. As part of its commitment to strengthening global competitiveness, PI Advanced Materials also offers one-on-one intensive foreign language courses aimed at enhancing practical business communication skills.

## Graduate Degree Support

PI Advanced Materials supports master's and doctoral degree programs at leading domestic universities to strengthen the capabilities of technical experts such as researchers and engineers. This strategic investment drives advancement in R&D and technology intensive fields, contributing to the company's long-term innovation and future competitiveness. In addition, for non-engineering and non-research roles, the company operates an MBA support program aimed at developing high-potential talent with managerial insight and leadership skills. By nurturing individuals who combine both professional expertise with a business-oriental mindset, PI Advanced Materials continues to reinforce its organizational agility and readiness to adopt to a rapidly evolving industrial landscape.

### Training Cost per Employee



### 2021

Training Expenditure

**297.3** KRW million

Training Completion Rate

**96** %

Participants in the Degree Support Program (Master's/Ph.D.,MBA)

**—** people

### 2022

Training Expenditure

**415.1** KRW million

Training Completion Rate

**96** %

Participants in the Degree Support Program (Master's/Ph.D.,MBA)

**2** people

### 2023

Training Expenditure

**432.9** KRW million

Training Completion Rate

**97** %

Participants in the Degree Support Program (Master's/Ph.D.,MBA)

**3** people

### 2024

Training Expenditure

**408.2** KRW million

Training Completion Rate

**99** %

Participants in the Degree Support Program (Master's/Ph.D.,MBA)

**2** people

# Corporate Culture and Labor Relations

## Fostering a Healthy Corporate Culture

PI Advanced Materials recognizes that a positive and inclusive corporate culture is essential to long-term success and sustainability. Corporate culture plays a vital role in elevating employee motivation and productivity, while reinforcing alignment with the company’s vision and values. The company actively cultivates collaborating environment that encourages open communication and the exchange of ideas, driving innovation and strengthening competitiveness. Furthermore, PI Advanced Materials is committed to building a culture that respects inclusion and diversity, empowering individuals to express their unique perspectives and professional strengths. Moving forward, PI Advanced Materials will continue to enhance its healthy corporate culture, by promoting employee engagement satisfaction and, as a socially responsible enterprise committed to human-centric growth.

## Labor Relations

PI Advanced Materials recognizes that a stable and constructive labor relationship is fundamental to corporate stability and sustainability. The company promotes open communication between labor and management based on trust and respect. Furthermore, PI Advanced Materials fosters a culture that upholds employee rights and welfare, ensuring job satisfaction through fair and transparent HR policies that seek to balance individuals and the company. In the event of major organizational changes, PI Advanced Materials operates a prior notification system designed to mitigate employee impact. Through regular briefings, the company transparently shares the rationale and effects of changes, such as restructuring, strategic shifts, mergers and acquisitions, and updates to working conditions, promoting understanding and active employee engagement.

### Labor-Management Council Negotiations in progress

**2021**

Number of collective bargaining sessions held

**10** times

**2022**

Number of collective bargaining sessions held

**12** times

**2023**

Number of collective bargaining sessions held

**12** times

**2024**

Number of collective bargaining sessions held

**12** times

\* Based on all sites

## Employee Communication Channels

PI Advanced Materials operates a diverse range of online and offline communication channels to gather employee feedback, complementing its Labor-Management Council efforts. Employees are encouraged to express their opinions through anonymous online bulletin boards, with submitted issues promptly reviewed by relevant departments. Furthermore, the company has introduced interactive communication programs to invite employees to share their concerns and suggestions. The HR team collects and analyzes this input to develop targeted solutions and strengthen engagement. PI Advanced Materials remains committed to engaging with its employees through diverse communication channels and fostering a culture of trust that supports employee satisfaction.

Program	Description
<b>PICNIC</b>	Picnic is an initiative designed to gather input from various job levels within the organization for the development of personnel welfare systems. By establishing open communication channels, Picnic empowers employees across different generations to share their perspectives.
<b>Group PI Talk (GPT)</b>	Group PI Talk (GPT) is an initiative that promotes meaningful relationships among employees, regardless of age, rank, or team. Each division or department hosts voluntary biannual activities to build a friendly and comfortable working atmosphere. These activities are designed to promote interpersonal understanding among team members through face-to-face interactions.
<b>Culture Day</b>	Culture Day is a unique initiative for managers and assistant managers to engage in cultural activities outside of workplace. By participating in events that promote shared interests, employees build special interpersonal bonds and a sense of community in a relaxing, inclusive environment.

### Number of Meetings by Job Level

**2021**

— times

**2022**

— times

**2023**

**3** times

**2024**

**3** times

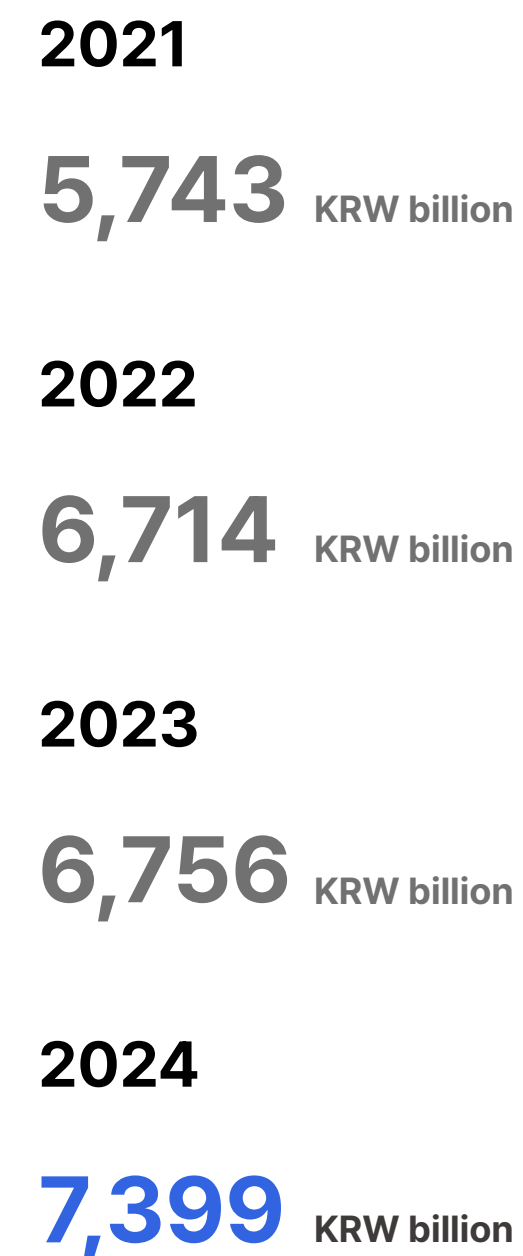
# Work-Life Harmony

## Employee Benefits

PI Advanced Materials places strong emphasis on improving employee quality of life through a comprehensive suite of welfare programs that promote mutual growth between the company and its employees. These initiatives are designed to enrich employees' lives beyond the workplace, supporting their well being and personal fulfillment. Rooted in the core philosophy of "Work-Life Harmony", PI Advanced Materials enables employees to fully engage in their professional responsibilities while enjoying meaningful personal time. Through this approach, the company fosters a sustainable workplace culture that drives both long-term organizational performance and employee satisfaction.

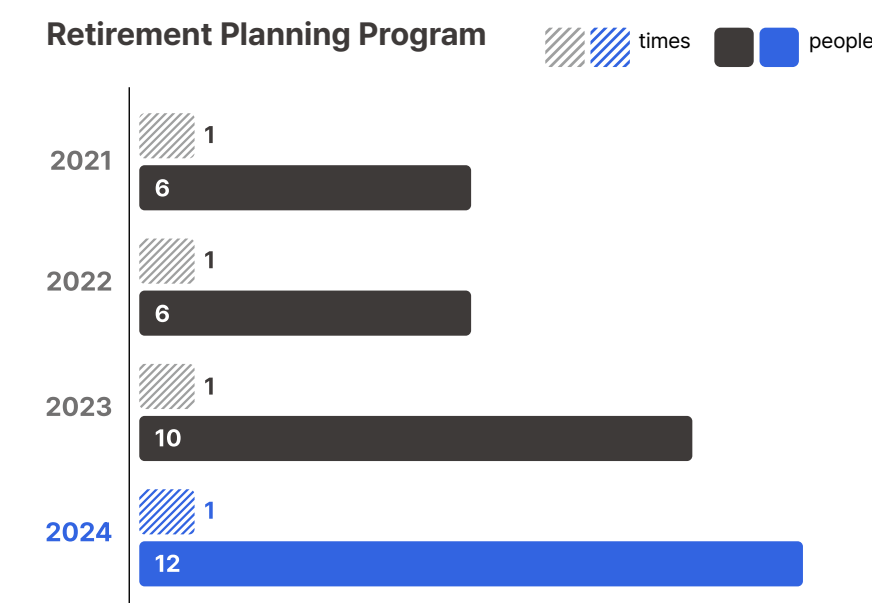
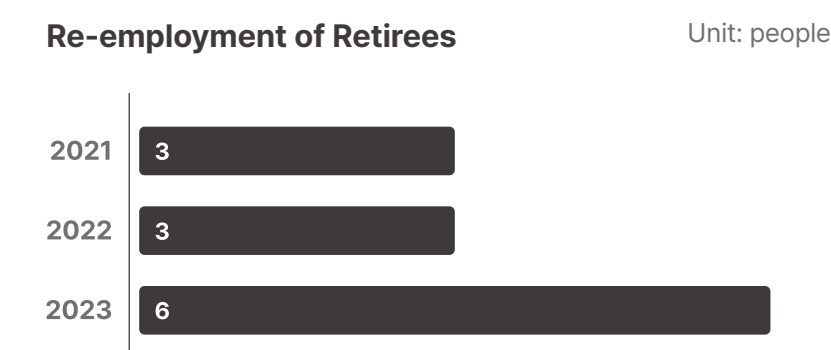
Benefit Program	Description
<b>Company Dormitory</b>	Offers company-paid dormitory housing with private bedrooms and shared living spaces for employees working far from home during the week.
<b>Recreation Clubs</b>	Provides financial support for employee-led sports and leisure club. 160+ members participate across 10 active clubs as of 2024.
<b>Housing Loans</b>	Provides interest-free housing loans to assist employees with home purchase.
<b>Tuition Support</b>	Fully covers tuition for employees' children, including admission and registration fees from elementary school to university.
<b>Substitute Holiday</b>	Grants a substitute day off when the company anniversary falls on a weekend or public holiday.
<b>Summer Vacation</b>	Provides five additional summer vacation days per year, in addition to legally mandated annual leave.
<b>Congratulatory and Condolence Leave</b>	Offers special leave and monetary support for major life events, calculated as a percentage of base salary.
<b>Medical Expenses and Check-up</b>	Covers annual health check-ups for employees and spouses, reimburses medical expenses for employees and their immediate families.
<b>Long-Service Reward</b>	Grants bonus vacation days and financial rewards for long-tenured employees to recognize dedicated service.
<b>Welfare Points</b>	Provides welfare points to all employees annually, which can be used to purchase goods and services, or participate in activities that support personal health, leisure, and overall quality of life.

## Employee Benefits Expenditure



## Retirement Planning and Re-employment Programs

PI Advanced Materials provides comprehensive support for employees approaching retirement through its outplacement program. The program offers reemployment opportunities based on individual expertise and experience. The program includes rehiring retirees as fixed-term workers and training on personal finance, family dynamics, and career reorientation.



## Family-Friendly Policies

PI Advanced Materials prioritizes work-life balance and actively promotes a family-friendly workplace through a range of supportive initiatives. The company offers family care leave, parental leave, and maternity leave to help employees avoid career interruptions and maintain financial stability during key life stages. Additionally, the company provides flexible working arrangements that empower employees to balance professional responsibilities with personal needs. In recognition of these efforts, PI Advanced Materials was awarded the "Family-Friendly Company Certification" by the Ministry of Gender Equality and Family in 2022, and PI Advanced Materials will continue strengthening its family-friendly systems in the future, ensuring employees can fully engage in childbirth and childcare without compromising their career growth or wellbeing.

	Unit	2021	2022	2023	2024
Number of employees using parental leave	Total	2	1	2	4
	Female person	1	1	1	0
Employees expected to return to work after parental leave	Male person	1	0	1	4
	Female person	-	-	1	1
Employees who returned to work after parental leave	Male person	-	-	0	4
	Female person	-	-	0	1
Return-to-work rate after parental leave	Male %	-	-	0	100
	Female %	-	-	-	75

\*Tracking return-to-work data for parental leave takers since 2022

# Safety and Health Management

## Policy Framework

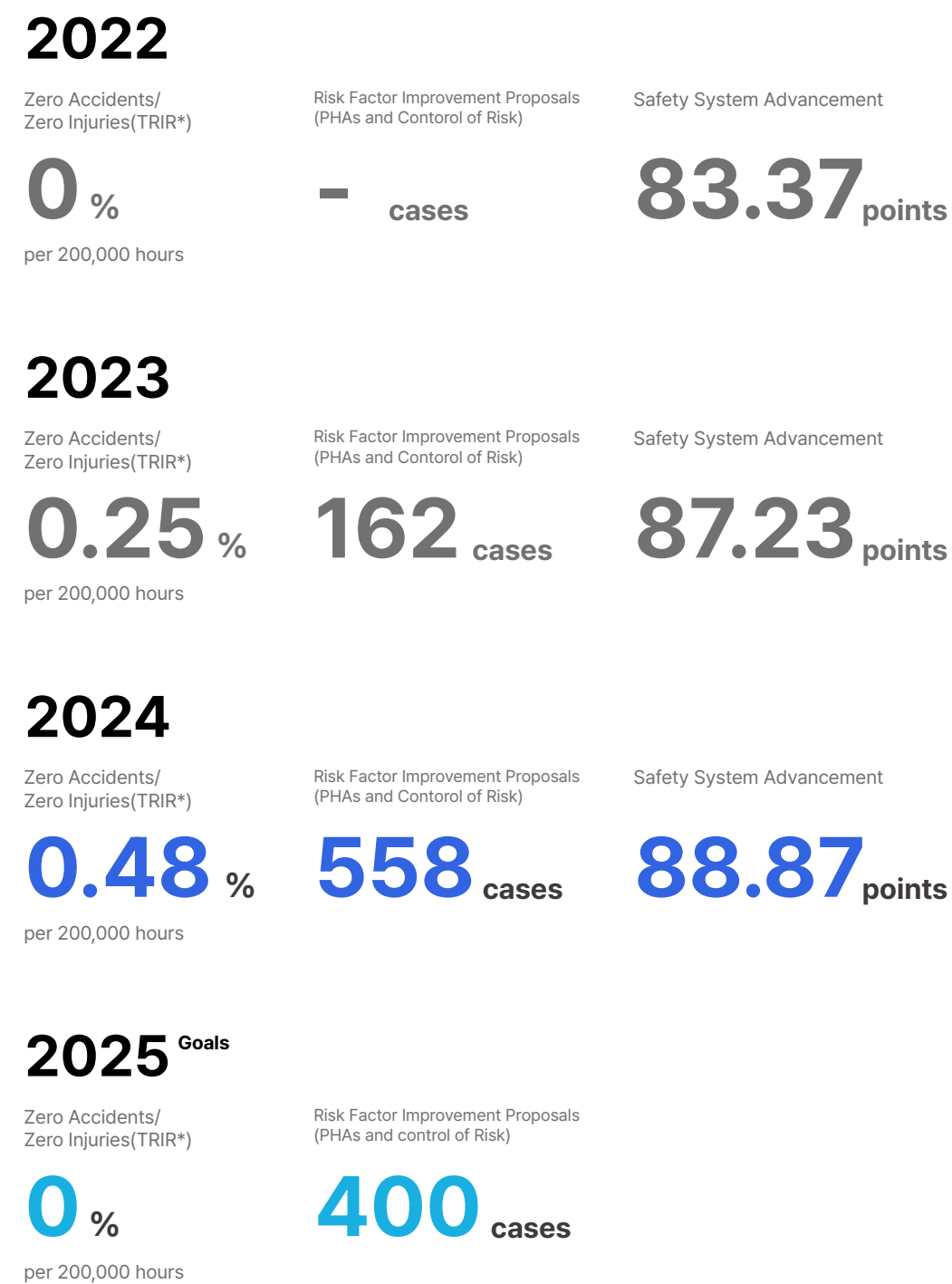
At PI Advanced Materials, the safety and health of employees, partners, and local communities are upheld as core values. The company enforces systematic safety and health protocols through a dedicated organizational structure, with trained safety and health officers deployed at each work site. The company prioritizes accident prevention and promotes a robust safety culture, aiming for zero accidents across all operations, while collaboration with partners supports the creation of a safe and responsive operational ecosystem. To ensure continuous improvement, regular safety and health evaluations are conducted and reported to the CEO. PI Advanced Materials remains committed to building a safe and healthy workplace and driving sustainable safety performance.

## Safety and Health Policy

PI Advanced Materials regards safety and health as fundamental elements of responsible management. The company is committed to building a safe workplace and achieving a zero-accident goal by implementing an optimal safety and health management system across all business activities.

- 1.** Safeguarding safety and health is our top priority, and we are committed to protecting all stakeholders, including employees, partners, customers, and the community, from accidents and hazards.
- 2.** We are responsible for identifying and mitigating hazardous risks of industrial accidents.
- 3.** We identify, verify, and comply with all laws, regulations, and procedures related to safety and health.
- 4.** We disclose our safety and health policies to all stakeholders and actively seek their feedback to ensure transparency in our safety and health management.
- 5.** All stakeholders, including employees, partners, customers, and local communities, are encouraged to share their opinions on safety and health. We take this feedback seriously to build safe workplaces for everyone.
- 6.** We provide safety and health education and training to foster a culture and awareness of "safety first" across all business activities.

## Safety and Health Management KPIs



\* TRIR: Total Recordable Incident Rate

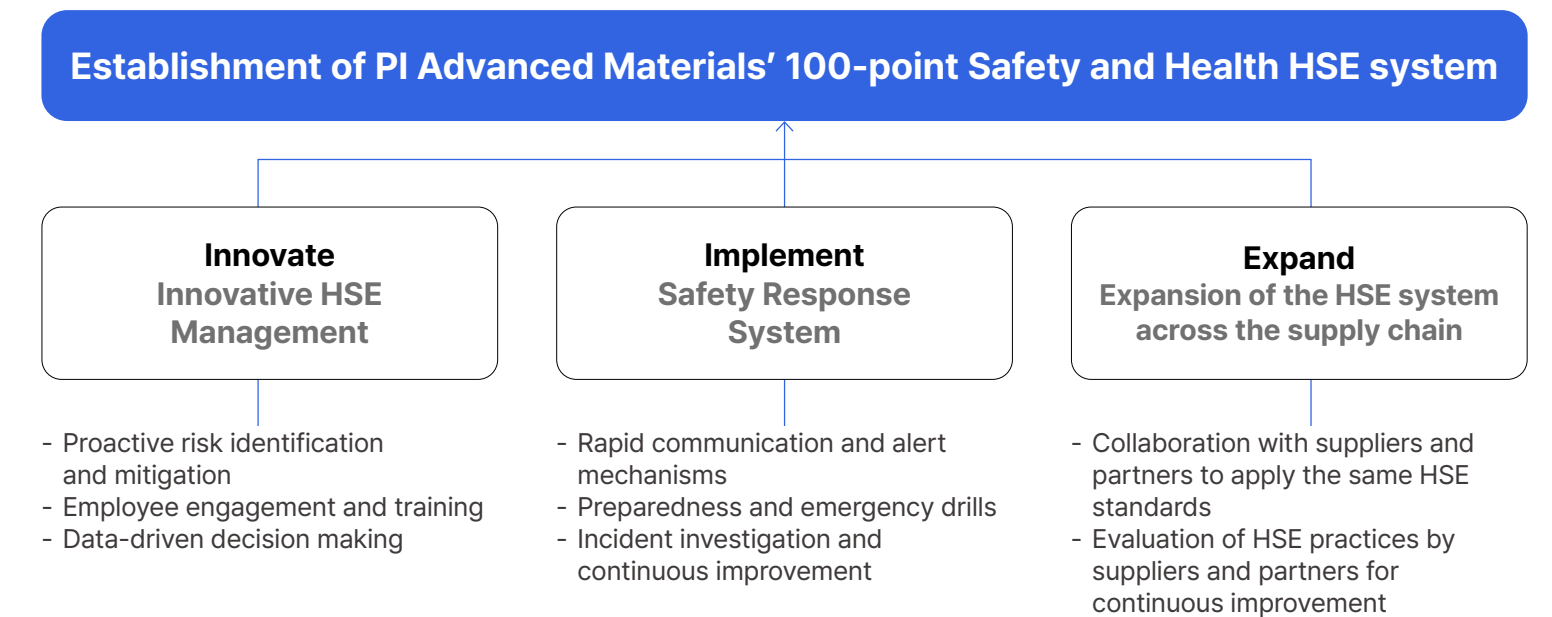
## Safety and Health Management Objectives

PI Advanced Materials sets clear and measurable safety and health goals that reflect its commitment to operational excellence and employee well-being. The company's objective include:

1. Achieve zero major accident risk and zero accidents.
2. Achieve 100% compliance with safety and health regulations and full implementation of Process Safety Management (PSM) protocols.
3. Strengthen workplace risk assessments across all sites.
4. Achieve 100% participation in safety and health training and promote awareness and engagement in safety practices.

## HSE100 TFT Activities

PI Advanced Materials designates HSE (Health, Safety, Environment) management officers at each business site to clearly define responsibilities and authority, ensuring comprehensive risk management across all sites. The company has launched the company-wide HSE 100 TFT to strengthen risk inspection and implement targeted improvement measures, thereby embedding a safety-first corporate culture and achieving integrated HSE management that extends to partner companies.



# Safety and Health Management

## Safety and Health Training

The most effective safety measure to protect the lives and well-being of PI Advanced Materials' members and its local communities is raising safety awareness. To this end, the company regularly conducts safety and health training designed to enhance safety awareness and provide specific safety work methods, knowledge, and skills necessary for performing tasks safely.

### Safety and Health Trainings and Activities

Training	Frequency	Target
Regular Safety and Health Training	Monthly	All employees
Supervisor Training	16 hours per year	Supervisors
Emergency Response Training	Quarterly	All employees (including resident partners)
Emergency Response Training for Chiller Accidents	Biannually	EM Team
PSM Training	Quarterly	PSM operation teams

## Supply Chain Safety and Health Support

PI Advanced Materials upholds the safety and health of its partners involved in contracting, outsourcing, and delegation. The company systematically manages the safety of partners by conducting regular site inspections and joint evaluations to prevent accidents during operations. In particular, for resident partners, safety and health council meetings are held to discuss work locations, schedules, and movement paths to prevent safety incidents. Additionally, PI Advanced Materials actively promotes safety and health awareness to its partners by providing safety training for chemical handlers and supporting regular health checkups. Furthermore, when selecting resident partners, the company mandates the submission of a safety and health management plan. Depending on the evaluation results, corrective actions may be required, and high-performing partners are given priority during the selection process.

## Occupational Environmental Assessment and Hazard Prevention

PI Advanced Materials conducts work environment assessments in collaboration with major hospitals in compliance with Article 25 of the Industrial Safety and Health Act, proactively preventing accidents caused by hazardous elements such as chemical leaks. Regular health check-ups are also provided for employees potentially exposed to harmful environments, through partnerships with local hospitals, to prevent occupational diseases and safeguard worker health. In alignment with safety and health regulations, the company identifies and evaluates risk factors in processes involving high musculoskeletal strain and implements targeted improvement measures to ensure a safe working environment.

## Industrial Safety and Health Committee and Consultative Body

PI Advanced Materials operates an Industrial Safety and Health Committee with equal representation from labor and management, in accordance with the Industrial Safety and Health Act. The committee convenes quarterly to deliberate and resolve matters related to safety and health regulations, chemical management, training plans, and hazard investigations, while sharing improvement measures companywide. Additionally, a joint inspection council, composed of both employees and on-site subcontractor staff, regularly accesses workplace hazards and discusses corrective actions, promoting cooperative efforts to ensure a safer work environment.

## Safe Environment Communication Channels

PI Advanced Materials has installed "Safety and Health Suggestion Box" at worksites in accordance with Article 4, Paragraph 1, Item 7 of the Enforcement Decree of the Serious Accident Punishment Act, allowing employees and partners to freely submit safety-related proposals. The company has also implemented the "Safety 100" system, enabling workers to report hazardous conditions directly to the Safety and Environment Team via QR codes posted on-site. PI Advanced Materials fosters a proactive and systematic safety culture by encouraging active participation from field personnel, including employees, partners, and subcontractors.



Scan this QR code using your mobile phone camera to access the safety suggestion submission screen.

# Safety and Health Management


## Chemical Management

PI Advanced Materials operates a systematic chemical management system to prevent accidents related to the use of various substances in the production process. The company has established an internal control framework covering the entire lifecycle of chemicals, from receipt to usage and disposal, and continuously improves its effectiveness. When introducing new chemicals, PI Advanced Materials conducts detailed analyses based on MSDS (Material Safety Data Sheets) and RoHS (Restriction of Hazardous Substances) standards. Following regulatory compliance checks and multiple testing phases, final registration decisions are made. To minimize environmental impact and prevent chemical related safety accidents, the company performs regular inspections and monitors usage levels. All employees complete chemical safety training, while personnel directly handling hazardous substances receive additional hands-on training to enhance response competencies. Disposed chemicals are managed in accordance with regulatory requirements and some selected substances are collected and recycled to support a circular economy. In particular, for volatile compounds, the company employs combustion and absorption processes to lower emission concentrations to 0 ppm, ensuring minimal release into the environment.

## Chemical Safety Training

PI Advanced Materials conducts statutory chemical safety training annually at each site to prevent incidents involving hazardous chemicals. To enhance worker protection, the company provides personal protective equipment (PPE) to all employees and mandates its use during operations to ensure strict compliance with safety protocols. Additionally, accident prevention devices such as chemical detectors and automatic shutoff systems are installed at each site. In the event of a chemical-related emergency, safety showers and eye wash stations are readily available to mitigate human injury. Through these preventive and responsive measures, PI Advanced Materials is committed to fostering a safer and more resilient work environment.

### Chemical Safety Training

 **2** hours per year

All employees (including resident partners)

## Chemical Substance Management System



### Introduction

1. Request pre-approval for new chemicals
2. Review laws and regulations to determine if usage approval is required
3. Conduct secondary sample testing  
→ Register new chemicals



### Usage

1. Conduct weekly self-inspection of hazardous chemical handling facilities
2. Monitor usage quantities of chemical substances
3. Conduct regular safety training for all employees
4. Conduct chemical leak response drills to reinforce emergency preparedness



### Disposal

1. Safely transport chemical waste for disposal through a designated and licensed service provider
2. Recycle solvent chemicals to support circular resource management

# Local Community Partnership

## Key Initiatives for Partnership

As a company that grows in tandem with the local community, PI Advanced Materials actively engages in diverse social contribution initiatives. Guided by the belief that "social contribution is not a choice but a necessity", the company has identified three strategic focus areas: co-prosperity, risk management, and the establishment of a sustainable system. This approach includes supporting vulnerable groups within the community and hosting local events to nurture future generations. PI Advanced Materials also engages in support and prevention activities to address potential environmental and safety issues stemming from unforeseen incidents. To reinforce its sustainable management foundation, the company participates in various organizations, including local economic groups, safety and environmental associations, and industry associations, thereby fulfilling its corporate social responsibilities. Under the business slogan of "Polyimide Connecting Tomorrow," PI Advanced Materials remains committed to building a better future through meaningful social contributions and active community engagement.

<b>Polyimide Connecting Tomorrow</b>			<b>Slogan</b>
<b>We engage in social and local initiatives to foster shared growth, safety, and sustainability of the surrounding communities</b>			<b>Mission</b>
<b>Shared Growth</b>	<b>Safety and Environment</b>	<b>Community Sustainability</b>	<b>Activity Areas</b>
<b>Vulnerable groups in the community / Future generations</b>	<b>The surrounding local communities</b>	<b>Local associations and organizations</b>	<b>Targets</b>
<p><b>Provide financial support</b> to vulnerable groups in the surrounding communities, such as single elderly households.</p> <p><b>Sponsor infants and children</b> from low-income households in the local communities.</p>	<p><b>Establish a community emergency response system</b> and a damage mitigation plan in case of accidents.</p> <p><b>Identify potential risks to the community</b> in the event of hazardous gas or chemical leaks and establish a prevention plan to contain the spread.</p>	<p><b>Join local community associations and business organizations</b> To support initiatives for the community and business development.</p> <p><b>Engage with local health, safety, and environmental organizations</b> to address community HSE risks.</p> <p><b>Participate in local economic and industrial organizations</b> to share and align visions for future business growth within the community.</p>	<b>Activities</b>

## Community Assistance Projects for Local Communities and Vulnerable Groups

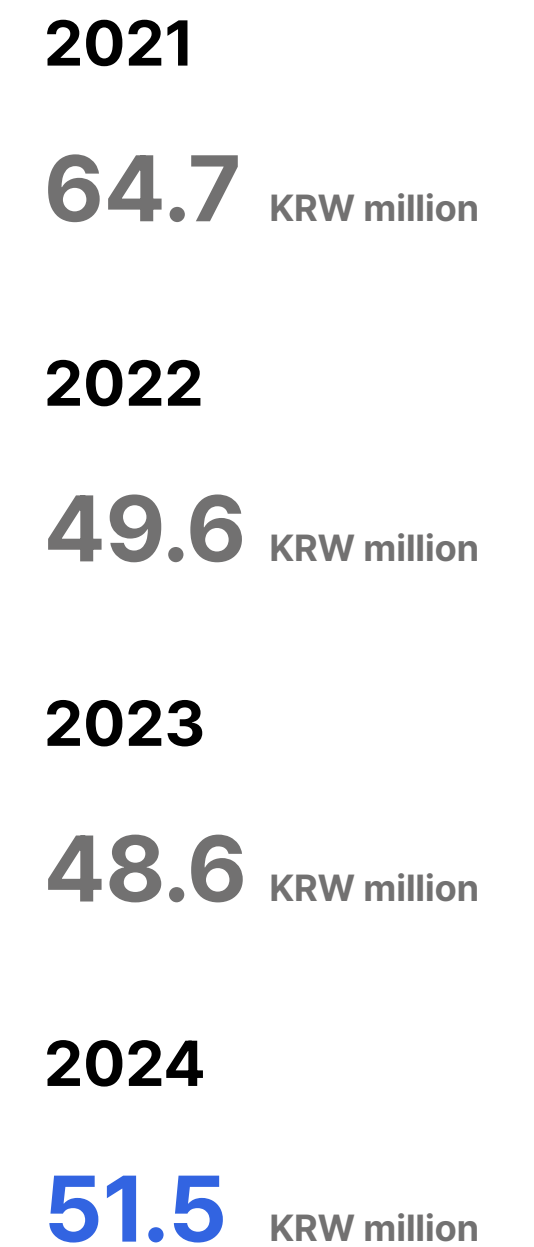
Since its founding, PI Advanced Materials has actively supported mutual growth and collaboration with the local community through internal fundraising and targeted assistance programs. To help young individuals thrive in challenging environments, the company partners with ChildFund Korea to provide donations and ongoing support. Additionally, PI Advanced Materials leads various community-focused initiatives, including the 'Kimchi Sharing' program, which extends aid to local residents and socially vulnerable groups, such as the elderly living alone. Kimchi Sharing (Kimjang) is a time-honored Korean tradition where communities gather to prepare and preserve large quantities of kimchi for winter consumption. It typically takes place in late autumn and is a significant cultural tradition that ensures families have a sufficient supply of kimchi during the colder months. PI Advanced Materials is proud to participate in this annual tradition as part of its continued commitment to local community partnership and sustainable social contribution.

### Local Engagement Programs

<b>ChildFund Sponsorship</b>	Collaborates with ChildFund Korea to provide ongoing support and holiday donations to students from low-income and single-parent households.
<b>Community Outreach Initiatives</b>	Fosters coexistence with the local community surrounding the Jincheon plant by hosting resident focused programs, including holiday and appreciation events for the elderly. The company also extends support to socially vulnerable groups, by supplying essential goods to elderly individuals living alone.



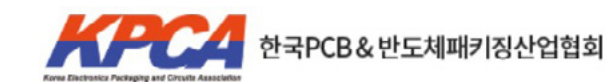
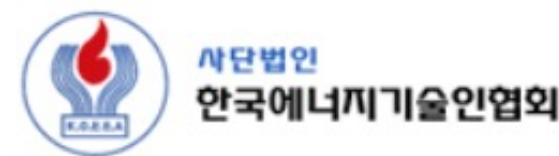
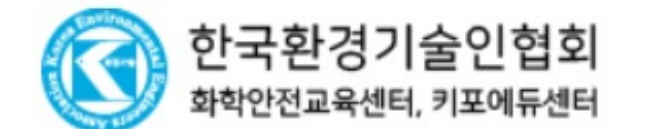
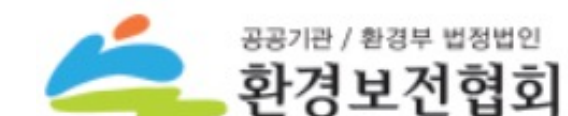
### Social Contribution Fund



# Local Community Partnership

## Involvement in Local Associations and Industry Organizations

PI Advanced Materials continuously strives to fulfill its corporate social responsibility and contribute to industrial development through collaboration with diverse institutions. Such cooperation is regarded as a vital driver for enhancing industrial competitiveness and advancing sustainable development. PI Advanced Materials is laying the groundwork for innovation and growth by promoting information sharing and industry-wide collaboration. Moving forward, the company will maintain its commitment to enhancing the competitiveness of the broader industry and building a sustainable society through strategic partnerships.



# Supply Chain Management

## Supply Chain Management Overview

PI Advanced Materials strictly adheres to international trade standards and strives to build a reliable supply chain management system that stakeholders can trust. Recognizing that stable supply chain operations rely on the voluntary participation of partners and a shared commitment to ESG principles, the company has established supply chain management guidelines and strengthened communication with partners. In addition, PI Advanced Materials selects partners based on fair and transparent evaluation criteria, fostering collaborative partnerships that respect eco-friendly technologies, sustainable products, and proprietary innovation. Moving forward, the company will continue expanding its sustainable supply chain and mitigating supply chain risks, fulfilling its role as a responsible organization that meets global standards.

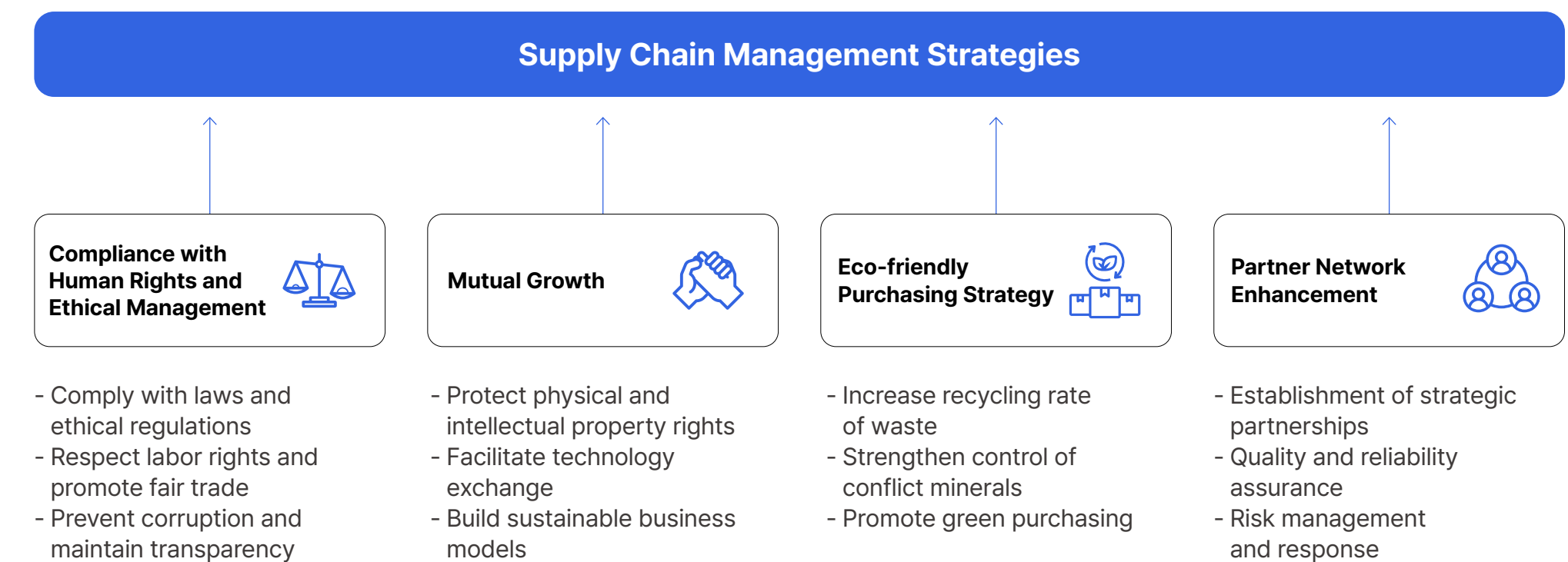
## Code of Conduct

PI Advanced Materials has established a Code of Conduct for Social Responsibility across five key areas : ethics, labor and human rights, safety and health, environment, and management systems. This framework is designed to foster mutual growth with partners and support the development of a responsible supply chain. Grounded in global standards, such as the UN Global Compact and the International Labour Organization (ILO), the code requires partners to comply with legal and ethical regulations, respect human rights, and fulfill responsibilities related to industrial safety and environmental protection. Compliance is periodically verified through self-assessments, document reviews, and on-site evaluations, with corrective actions implemented as needed. Additionally, PI Advanced Materials ensures transparency by publicly disclosing the Code of Conduct on its website, enabling all partners to access the guidelines and participate in responsible business practices. Moving forward, the company remains committed to driving mutual growth with its partners through fair, transparent, and sustainable supply chain management.

## Four Core Strategies for Supply Chain Management

PI Advanced Materials strengthens its supply chain management system through four core strategies designed to establish a sustainable and responsible supply chain. First, the company emphasizes fair trade practices grounded in human rights and ethical governance, promoting integrity, equity, and transparency. Second, it applies a structured purchasing strategy to diversify the

supply chain and enhance purchasing competitiveness through strategic collaboration with high-quality suppliers. Third, it advances an eco-friendly procurement approach by adopting green technologies and encouraging green sourcing. Lastly, the company supports mutual growth through technology exchange and collaboration, while safeguarding the intellectual property of its partners.



# Supply Chain Management

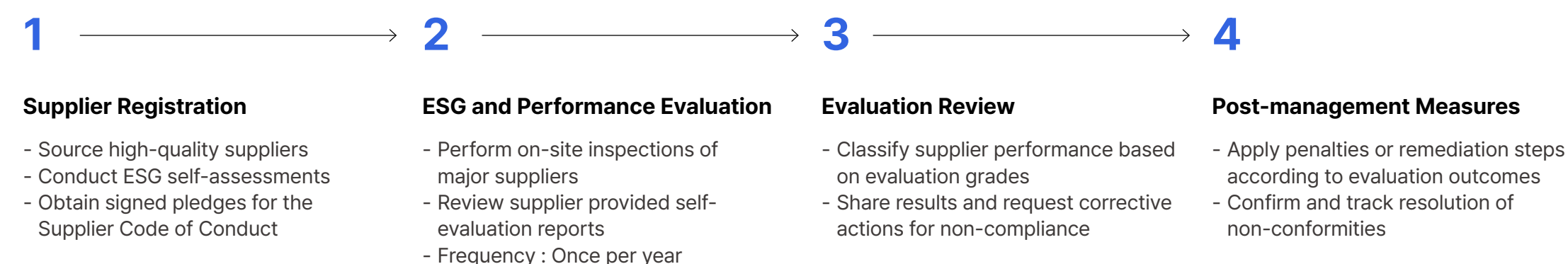
## Supply Chain Risk Management

PI Advanced Materials operates a risk management system to ensure the sustainability and safety of its supply chain, with an increased emphasis on ESG factors from the end of 2023. For partners with insufficient evaluation results, the company requires improvement actions and provides targeted support measures to elevate ESG performance and foster a culture of shared growth. The company also enforces internal safety and health regulations to safeguard contract, service, and consignment workers, conducts regular inspections, and holds safety consultations. In addition, the company promotes safety awareness and well-being by mandating safety training, health checkups, and submission of safety and health management plans by partner companies. Based on evaluation results, the company requests that any identified gaps be addressed, and operates a system that grants preferential consideration in future selection to partners who meet the required standards.

## Post-Supply Chain Management

PI Advanced Materials conducts annual environmental impact assessments of its suppliers to strengthen the sustainability of its supply chain. Assessment outcomes are incorporated into decisions regarding contract extensions and ongoing business relationships. The evaluations quantify environmental impacts across dimensions such as air quality, water use, and waste generation, and assign grades based on risk level and significance. For raw material suppliers and equipment providers, the company requires documentation verifying non-use of hazardous substances in accordance with RoHS and related environmental regulations. These claims must be supported by test reports from certified institutions. To ensure transparency and accountability in waste management, PI Advanced Materials performs on-site inspections of waste disposal providers at least once a year, imposing corrective measures or terminating contracts if illegal handling is detected. Since 2023, the company has adopted proprietary ESG evaluation standards and Code of Conduct for raw material suppliers and key partners, proactively identifying environmental management practices and ESG risks which are integrated into procurement policies. PI Advanced Materials will continue leading sustainable supply chain practices in partnership with its suppliers.

## Supplier Management Process



## Supply Chain Evaluation Items

Item	General Status	Sustainability Management System (SMS)	Quality Management System (QMS)	Environmental Management System (EMS)
<b>Evaluation Content</b>	<ul style="list-style-type: none"> <li>- Management status</li> <li>- Credit rating, transaction performance</li> <li>- On-time delivery</li> <li>- Risk management (e.g., insurance coverage)</li> </ul>	<ul style="list-style-type: none"> <li>- Sustainability management certification(ISO26001)</li> <li>- Labor rights management</li> <li>- Compliance with ethical standards</li> <li>- Anti-corruption management</li> </ul>	<ul style="list-style-type: none"> <li>- Quality management certification (ISO 9001)</li> <li>- Quality indicators and control</li> <li>- Customer satisfaction</li> <li>- Process management</li> </ul>	<ul style="list-style-type: none"> <li>- Environmental management certification (ISO 14001)</li> <li>- Hazardous materials management</li> <li>- Materials and product oversight</li> </ul>

## Supply Chain Management Status

	Category	Unit	2021	2022	2023	2024
<b>Supply Chain Management</b>	<b>Total Number of Partner Companies</b>	Number	232	288	238	172
	Supplier Evaluations	Number	38	37	34	34
	Partner Companies Requiring Corrective Actions	Number	8	3	3	9
	Implementation Rate of Corrective Actions	%	100	100	100	100
	Partner Companies with Terminated Relation	Number	0	0	0	0

\* Total suppliers: All vendors including raw materials, packaging, logistics, and equipment repair services.

# Customer Satisfaction Management

## Customer Satisfaction Management Process Overview

PI Advanced Materials places customer satisfaction at the heart of its sustainable management practices, integrating both quality assurance and environmental at stewardship. By understanding customer needs and delivering high-quality products and reliable services, the company fosters long-term partnerships built on trust. PI Advanced Materials continuously invests in quality management systems and facility

enhancements aligned with international standards. The company actively improves its products by incorporating customer feedback and ensures rapid customer support to minimize inconvenience. In addition, the company demonstrates its commitment to responsible corporate practices by adopting eco-friendly production systems, reducing waste, and improving resource efficiency.

## Quality and Environmental Management Certification



### Certification Status

ISO 9001 Quality Management System (File No. : FM 518728)  
ISO 14001 Environmental Management System (File No. : EMS 518811)

### Certification Period

2007 - 2028

\*Extension review completed in April 2025

## Product Safety Certification



### Certification Status

Flame Retardant Certification (V-0, VTM-0) (File No. QMFZ2.E258356)

### Certification Period

From 2006



### Certification Status

Restriction of Hazardous Substances  
RoHS Certification with SGS

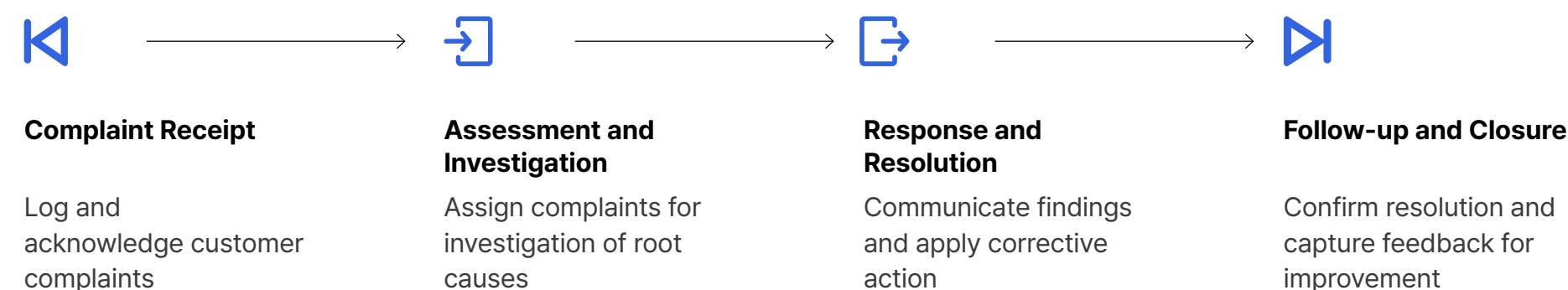
### Certification Period

Annual assessment of all products

## Customer Complaint Handling Process

PI Advanced Materials has established a comprehensive customer complaint handling system to ensure product safety throughout usage and to address customer concerns promptly and

accurately. This process is designed to uphold product reliability and sustain customer trust, enabling users to benefit from the company's high-quality offerings.



## Customer Complaint Frequency / Resolution rate

Category	Unit	2020	2021	2022	2023	2024
Complaint incidence as % of sales	%	0.3	0.4	0.1	0.4	0.02
Complaint resolution rate	%	100	100	100	100	100

## Sustainable Global Market Leadership

PI Advanced Materials is advancing global competitiveness through high-quality polyimide production and ongoing process innovation, achieving sustainable growth anchored in quality management. The company has surpassed \$100 million in export sales for three consecutive years, earning the "100 Million Dollar Export Tower" at Korea's 60th Trade Day in 2023. With over 64% of total sales generated from overseas markets, PI Advanced Materials maintains a robust presence across Greater China, Europe, and North America. PI Advanced Materials will enhance production capacity through continuous innovation and quality improvement, while expanding its global footprint, and generating sustainable value with positive environmental impact.

- Governing Responsibly
  - Responsible Corporate Governance
  - Protection of Stakeholder Rights
  - Ethical Management
  - Compliance Management
  - Risk Management
  - Strategic Material Management
  - Financial and Tax Risk Management
  - Information Security

## Governance

# Governing Responsibly

PI Advanced Materials is committed to sustainable management by fostering shared goals, values, and benefits with all stakeholders. To achieve collective objectives, the company adheres to transparent information disclosure, openly shares performance insights, and strictly complies with legal and tax regulations. PI Advanced Materials fulfills its social responsibilities through responsible tax practices and strict regulatory compliance. These efforts build the foundation for long-term trust, mutual cooperation, and inclusive growth with stakeholders.

# Responsible Corporate Governance

PI Advanced Materials is committed to building a transparent governance structure that supports sustainable growth and enhances shareholder value. To uphold this commitment, we proactively disclose governance-related information, including our articles of incorporation, shareholder meeting agendas and outcomes, board activities, and operating regulations, based on clearly defined standards and procedures. All disclosures are made readily available via our corporate website, ensuring transparency and accessibility for all stakeholders.

## Board Composition

The Board of Directors of PI Advanced Materials comprises seven members, including one internal director, three independent directors, and three non-executive directors, all of whom are appointed at the General Meeting of Shareholders. Prior to the Meeting, relevant details, including

candidate profiles, nomination rationale, and voting guidelines are disclosed in advance via shareholder notices and proxy materials. Final approval of director appointments is confirmed at the General Meeting of Shareholders.

Category	Name	Gender	Key Experience	Term	
Chair of the Board	Inside Director (CEO)	Kevin Song	Male	Bachelor of Business Administration, Sogang University Former) Head of Sales, SKCKOLONPI Co., Ltd. Former) Head of Business Division, PI Advanced Materials Co., Ltd. Current) CEO, PI Advanced Materials Co., Ltd.	March 23, 2023 - March 22, 2026
Director	Independent Director	Jewon Lee	Male	Completed Indiana University School of Law SJD Current) Attorney at Lee & Ko	March 23, 2023 - March 22, 2026
		Hyeongil Oh	Male	PhD in Accounting from Columbia University Current) Professor of Accounting, School of Management Engineering, KAIST Business School	March 23, 2023 - March 22, 2026
		Marc Henri Florent Schuller	Male	Former) Vice President, Arkema S.A. Current) COO, Arkema S.A.	December 1, 2023 - March 22, 2026
Director	Other Non-Executive Director	Marie José Donsion	Female	Former) Executive Director in Finance, Alstom S.A. Former) CFO, Alstom S.A. Current) CFO, Arkema S.A.	December 1, 2023 - March 22, 2026
		Hyunsoo Han	Male	Former) HR/GA/PSRA Part Director, Arkema Co., Ltd. Current) CEO, Arkema Co., Ltd.	December 1, 2023 - March 22, 2026

## Separation of CEO and Chairperson

PI Advanced Materials is committed to strengthening the independence and transparency of its governance structure. In March 2020, the company amended the regulations to allow the chairperson of the board to be appointed from among any directors chosen by the board, removing the previous requirement that the role be held by the CEO. This governance enhancement was further advanced, in March 2023, when the board appointed a non-CEO director as chairperson. These actions mark a clear separation of powers between executive management and board leadership, fostering an independent decision-making structure and reinforcing management transparency.

## Independence of Independent Directors

PI Advanced Materials places a strong emphasis on building a robust governance structure rooted in the independence and expertise of its independent directors. Of the seven board members, approximately 43% (three members) are independent directors with distinguished background in finance, investment, accounting, and law. These individuals have no direct ties to the company, ensuring full impartiality in their oversights. Their external perspectives enable the board to deliver objective, balanced evaluations of critical decisions. Leveraging this independence, the board engages in comprehensive deliberation of all agenda items, making transparent and accountable decisions aligned with stakeholder interests. This practice forms a cornerstone of sustainable corporate management and the protection of shareholder rights.

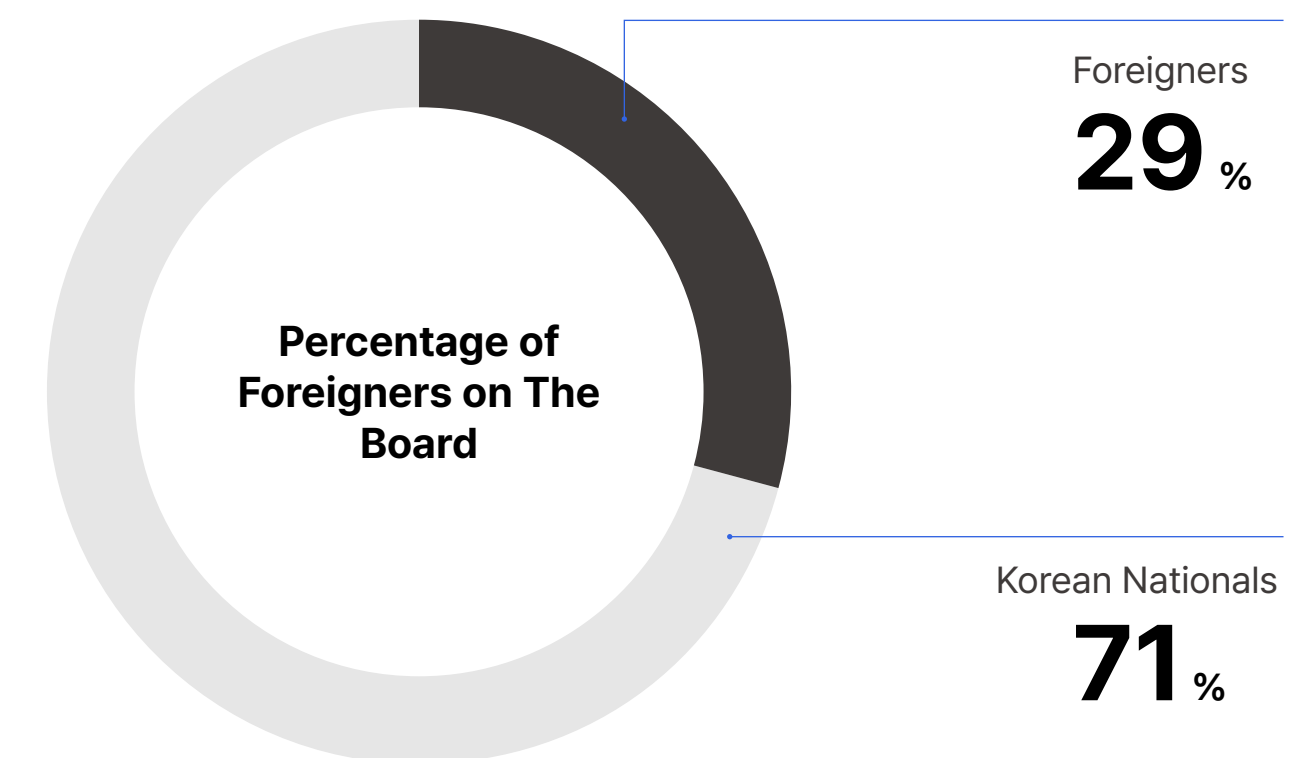
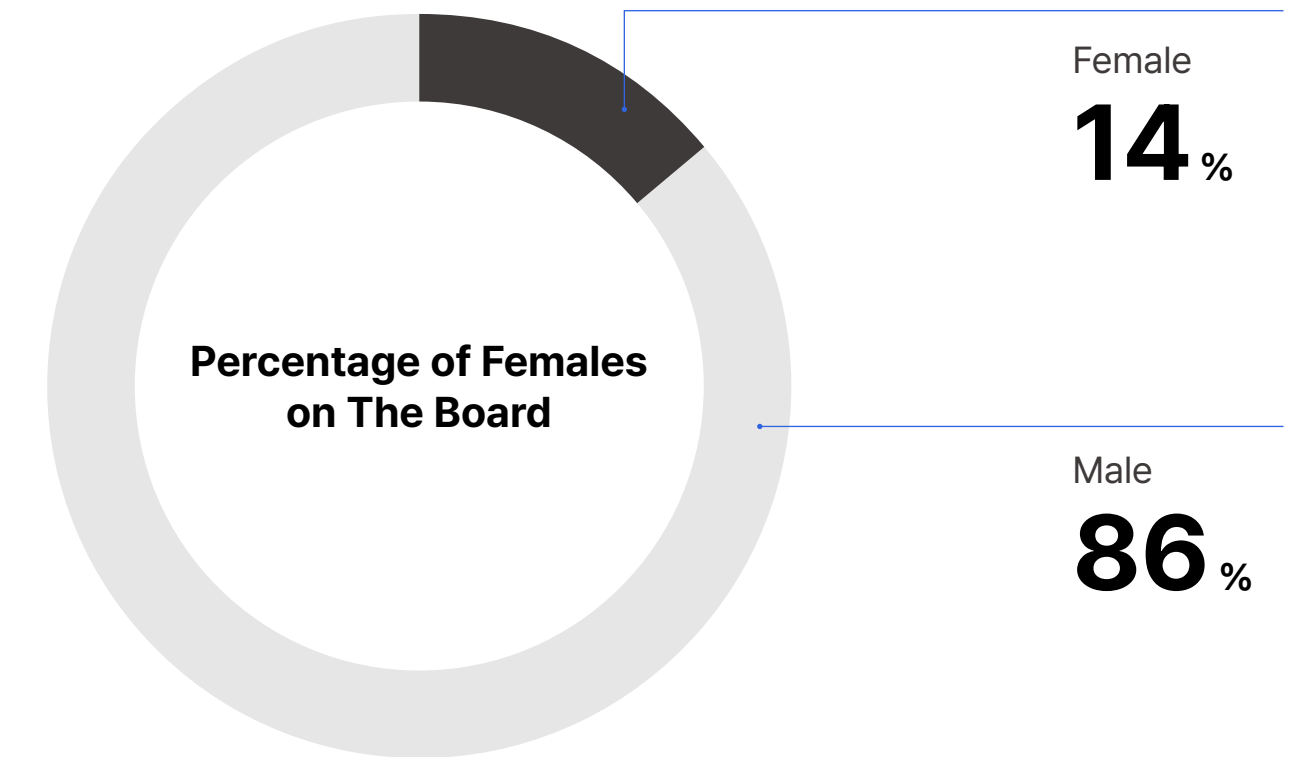
# Responsible Corporate Governance

## Board Expertise and Diversity

PI Advanced Materials is committed to enhancing its global competitiveness by cultivating a diverse and independent board of directors. The seven-member board includes a representative from internal management and key executives from major shareholder Arkema Group as non-executive directors. To strengthen inclusiveness and balanced decision-making, the board includes individuals from diverse professional and demographic backgrounds, including a female director. Additionally, the presence of independent external experts contributes to elevated autonomy and transparency in board operations. This independent and diverse board structure empowers informed decision-making, upholds stakeholder interests, and drives sustainable growth.

### Board of Directors' Competency Matrix

Category	Name	Areas of Expertise						
		Management	Finance	Accounting	Legal	Sales	Engineering	
Chair of the Board	Inside Director (CEO)	Kevin Song	●				●	
		Jaeho Yang				●		
Director	Independent Director	Jewon Lee				●		
		Hyeongil Oh		●	●			
		Marc Henri Florent Schuller	●					
	Other Non-Executive Director	Marie José Donsion		●	●			
		Hyunsoo Han	●					



# Responsible Corporate Governance

## Board of Directors Operations Overview

The Board of Directors plays a vital role in overseeing management and guiding strategic decision making. Regular meetings are held at least once every quarter with extraordinary sessions convened as needed. In 2024, the board convened a total of six meetings, during which 27 agenda items were either reported or resolved. A key decision included the approval to convene the 16th Annual General Meeting of Shareholders. In all meetings, no directors expressed objections or proposed amendments to the reported or resolved agenda items, and all directors demonstrated a perfect attendance rate of 100%.

## Board Activity and Attendance Record

Board Acting		단위	2021	2022	2023	2024
Meetings Held	No		9	8	10	6
Attendance Rate	%		100	100	100	100
Reporting and Resolution	Number of Items	No	27	22	30	27
	Approved	%	100	100	100	100
Resolution Details	Opposed and Abstained	%	-	-	-	-

## Evaluation and Compensation of the Board of Directors

PI Advanced Materials provides director compensation within the compensation limit approved at the general meeting of shareholders, in accordance with Article 388 of the Commercial Act and the company's articles of incorporation. To preserve board independence, only a base salary is provided to independent directors, with no performance-based incentives. Additionally, retirement benefits for directors are calculated and paid according to the criteria established through resolutions passed at the general meeting of shareholders.

Category	Number of people	Total	Average Remuneration per person
Registered Director	4	366 million KRW	92million KRW
Independent Director (Concurrent Audit Committee Member)	3	74 million KRW	25million KRW

## 2024 Board of Directors Meeting Status

Session no.	Date of Meeting	Agenda Items	Attendance Rate		
			Independent Director	Internal Director	Other Non-Executive Director
1	January 12, 2024	Approval Approval of the 2024 budget Refinancing of general loan – Hana bank Extension of maturity for general loan – NH bank	100%	100%	100%
2	February 5, 2024	Report ① 2023 Annual business overview ② Q4 2023 business performance	100%	100%	100%
		Approval Approval of the 16th financial statements and business report			
3	March 4, 2024	Report ① Internal control over financial reporting ② Internal control over financial reporting evaluation	100%	100%	100%
		Approval Notice of the 16th Annual General Meeting of Shareholders Approval of introduction of electronic voting at the shareholders' meeting			
		Report ① Q1 2024 business performance ② Q1 2024 business overview ③ Q2 2024 business plan ④ Selection of ICFR PA service provider for 2024 ⑤ Ceo personal goals and compensation package	100%	100%	100%
5	July 29, 2024	Report ① Q2 2024 business performance ② Q2 2024 business overview ③ Q3 2024 business plan	100%	100%	100%
		Approval Approval of semiannual financial statements for the 17th fiscal year Approval of organizational change Approval of extension of F2 expansion investment			
		Report ① Q3 2024 business performance ② Q3 2024 business overview ③ Q4 2024 business plan ④ Status of foreign exchange hedge policy	100%	100%	100%
6	October 31, 2024	Approval Approval of q3 reviewed financial statements for the 17th fiscal year Approval of increase in compensation for independent directors			

# Responsible Corporate Governance

## Board Subcommittee Roles and Engagement

PI Advanced Materials maintains an independent Audit Committee within its Board of Directors to uphold effective oversight of internal controls, risk management, and accounting transparency. The Audit Committee's primary role is to assess the validity and reasonableness of the company's accounting practices and financial reporting. In accordance with the Audit Committee regulations, it is composed entirely of three independent directors, ensuring impartiality, objectivity, and transparency. These independent directors bring external perspectives and expertise, and the committee's activities are openly disclosed on the company website, reflecting PI Advanced Materials' commitment to transparency and stakeholder engagement.

## Audit Committee Activities and Attendance Rate

Activities	Unit	2021	2022	2023	2024
<b>Meetings Held</b>	No.	2	2	3	2
<b>Reporting and Resolution</b>	Number of Items Reported and/or Resolved No.	5	5	7	8
<b>Audit Committee Resolution Details</b>	Approved	%	100	100	100
	Opposed and Abstained	%	-	-	-

## Audit Committee Meetings

Meeting Date	Agenda Items	Attendance Rate		
		Hyeongil Oh	Jaeho Yang	Jewon Lee
February 5, 2024	Report	100%	100%	100%
	① Audit results for the 16th fiscal year by external auditor ② Report on signing of designated audit agreement			
March 4, 2024	Report	100%	100%	100%
	① Review of 2024 corporate tax payment plan ② Review of functional currency determination ③ Review of foreign exchange hedge policy			
	④ Report on the internal control over financial reporting			
	Approval			
	Preparation of the internal control over financial reporting evaluation Approval of the Audit Committee's audit report			

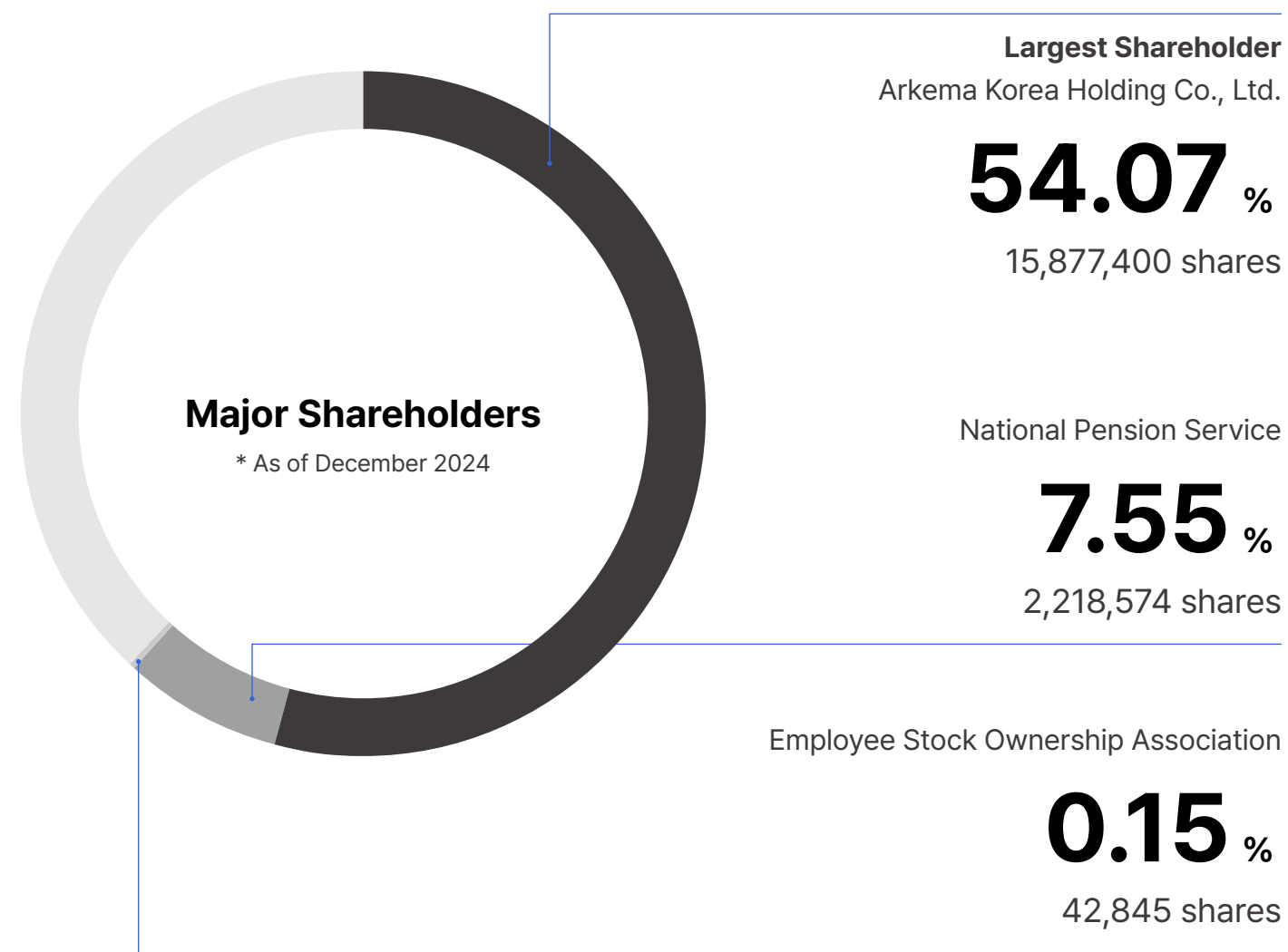
# Protection of Stakeholder Rights

## Shareholder Composition

The largest shareholder of PI Advanced Materials is Arkema Korea Holding Co., Ltd., holding 54.07% of shares and 54.18% including related parties. Other significant shareholders include The National Pension Service (7.55%) and the Employee Stock Ownership Association (0.15%).

PI Advanced Materials has authorized

100,000,000 issuable shares, of which 29,366,322 shares are currently issued. The company currently holds no treasury stock. PI Advanced Materials only issues common stock, with no preferred stock outstanding. Each common share grants one voting right, ensuring equal rights for all shareholders.



## Introduction of Electronic Voting and Electronic Proxy System

PI Advanced Materials operates electronic voting and electronic proxies to facilitate shareholder participation. During the 2024 Annual General Meeting of Shareholders, ten shareholders exercised their voting rights via electronic voting. To encourage broader engagement, the company plans to diversify voting options and enhance system accessibility, allowing shareholders to express their opinions without time or

location constraints. Additionally, the company is actively lowering participation barriers, particularly for minority shareholders, by improving procedural clarity and accessibility. PI Advanced Materials views digital transformation as an essential tool for advancing sound corporate governance, and will continue expanding the institutional framework to foster inclusive, practical participation.

## Information Accessibility

PI Advanced Materials places the highest priority on building stakeholder trust through transparent, accurate, and timely information disclosures. The company strictly complies with applicable regulations, including the Commercial Act and the Capital Markets Act. To maximize shareholder participation, the company avoids scheduling the General Meeting of Shareholders on peak dates. Meeting details are disclosed on the company website and the Electronic disclosure system (DART) at least

two weeks in advance. To enhance accessibility for international investors, PI Advanced Materials has provided major disclosures in English since 2020. Following its inclusion in the KOSPI 200 index in 2021, the company has maintained a stable position in the index. In 2024, PI Advanced Materials was selected as an 'Outstanding Disclosure Company' by the Korea Exchange based on the strengths of its internal disclosure system.



# Protection of Stakeholder Rights

## Shareholder-Friendly Dividend Policy

PI Advanced Materials distributes dividends in accordance with Article 47 of its Articles of Incorporation, following approval by the Board of Directors and the General Meeting of Shareholders. A portion of net profits is allocated toward long-term growth investments and R&D, while the remainder is returned to shareholders as part of its commitment to shareholder value. Up to 2022, the company maintained a consistent dividend payout ratio of approximately 50%. Going forward, PI Advanced Materials intends to maintain a consistent dividend payout ratio aligned with the largest shareholder's dividend policy and refine its dividend strategy through a balanced consideration of investment plans, cash flow, and financial stability. Due to a net loss in the 16th fiscal year(2023), the company did not

distribute dividends. Cash dividends were paid in the 17th fiscal year(2024). The company promptly and transparently discloses dividend decisions with shareholders via public announcements on "Cash and In-Kind Dividend Decisions." In addition, dividend plans for the upcoming fiscal year are included in investor relations presentations. At the 2024 Annual General Meeting, shareholders approved an amendment to the Articles of Incorporation to set the dividend record date after the annual dividend payment decision has been made, effective from the 2025 dividend. This change is expected to improve predictability for investors, enabling more informed decisions and further strengthening the company's credibility in the capital markets.

## Dividend History

Category	Unit	2021	2022	2023*	2024
Dividend per share	KRW	1,090	779	-	350
Dividend payout ratio	%	50.01	50.05	-	44.00
Total dividend amount	KRW million	32,009	22,876	-	10,286

\* In 2023, cash dividends were not distributed due to the company recording to a net loss.

## IR Activities and Shareholder Communication

PI Advanced Materials is committed to providing objective and timely information to all shareholders to support informed investment decisions. Dedicated IR officers facilitate proactive and responsible communication, and senior executives host quarterly financial performance briefings and publish results on the company's website to promote transparency and reduce information asymmetry. PI Advanced Materials views IR activities as a strategic platform for sharing the company's management philosophy and long-term direction.

These efforts help build trust in the capital market and contribute to long-term corporate value. In addition, the company regularly hosts investor meetings and conference calls across multiple channels, both domestically and internationally. This transparent communication culture is a cornerstone of PI Advanced Materials' ESG management approach, supporting sustainable business practices and stakeholder inclusivity.

# Ethical Management

## Ethical Management Principles

PI Advanced Materials regards ethical management as a fundamental responsibility, going beyond economic and legal obligations to embrace moral accountability in all business activities. The company upholds a proactive commitment to ethical standards as a guiding principle, continuously promoting fair and transparent practices.

All members of PI Advanced Materials actively contributes both tangible and intangible value to stakeholders, including customers and shareholders, playing a vital role in social and economic advancement. The company also engages with local communities to promote human well-being through sustained efforts. Through these initiatives, PI Advanced Materials positions ethical management as a central criterion for decision making and remains dedicated to fulfilling its social responsibilities for a sustainable future.

## Ethical Management Guidelines

PI Advanced Materials has adopted "Ethical Management" as the fundamental standard for decision making across all business activities. To this end, the company has enacted the "Code of Ethics for Employees" and the "Guidelines

for Ethical Practice", providing clear behavioral standards for all employees. By adhering to these policies, PI Advanced Materials promotes a corporate culture rooted in fairness, transparency, and accountability.



### Customers

Customer satisfaction is our top priority and the key to gaining our customers' trust and fostering mutual growth.



### Society

We comply with laws and regulations, contribute to social welfare, promote sustainability, foster social responsibility, and ensure transparency to build public trust.



### Shareholders

We are committed to maintaining and enhancing our shareholders interests. We strive to make strategic decisions that drive long-term profitability, ensure transparency, and consistently act in the best interests of our shareholders.



### Members

All members of PI Advanced Materials are expected to carry out their duties to the best of their abilities, upholding a strong sense of responsibility as representatives of the company.

## Ethical Management Training Code of Ethics

PI Advanced Materials fosters ethical awareness, with every member committed to creating value for customers, shareholders, and broader society. Recognizing their role in social and economic progress and their contribution to human well-being, the company conducts annual ethics training for all employees. These training sessions reinforce the importance of ethical conduct and promote a corporate culture built on fairness, transparency, and social responsibility.

## Reporting violations of the Code of Ethics

PI Advanced Materials operates year-round "Ethical Management Violation Reporting Center" to uphold fairness, transparency, and accountability in its ethical management practices. To safeguard whistleblowers from any form of retaliation or disadvantage, the company has implemented a comprehensive whistleblower protection program and actively promotes its use by providing clear guidance and access on the company's website.

**For reporting concerns related to ethical management and internal accounting control systems, please refer to the contact details provided below.**



### Email

ethics@pimaterials.com



### Fax

+82-2-2181-8695



### Phone

+82-2-2181-8625



### Address

Ethical Management Officer of PI Advanced Materials, 16F, Building B, Grand Central, 14, Sejong-daero, Jung-gu, Seoul, Republic of Korea, 04527

# Compliance Management

## Compliance Management Overview

PI Advanced Materials prioritizes proactive risk mitigation and robust corporate governance through comprehensive compliance management systems. To strengthen internal controls and foster stakeholder trust, the company operates the following key structures:

### 1. Compliance Management Council

Comprising top management and executives from key departments such as legal, finance, human resources, and operations, the Council sets and supervises compliance strategies.

### 2. Compliance Management Team

The Legal & Compliance Team serves as the dedicated compliance unit, leading the development and implementation of internal policies and procedures. The team also conducts regular training sessions to ensure employee understanding and adherence to legal and regulatory requirements.

### 3. Internal Audits and Monitoring

Periodic internal audits and compliance checks are performed to assess system effectiveness. Improvement areas identified through these evaluations are promptly addressed to maintain integrity and operational transparency.

### 4. Communication with Stakeholders

PI Advanced Materials maintains open and transparent communication with employees, customers, and partners, actively incorporating external feedback to enhance system performance and accountability.

## Compliance Training

Date	Subject	Training Provider	Target	Method
January 1 - December 31, 2024	Employee ethics training (Prevention of sexual harassment and workplace bullying, and promotion of disability awareness )	Online	Employees	Lecture
October - November, 2024	Fair trade education (Subcontracting-related theories and cases)	Legal & Compliance Team	Employees	Lecture

## Compliance Risk Management

PI Advanced Materials upholds transparent and equitable business practices by implementing a compliance management system aligned with international standards. The compliance risk management system serves to ensure responsible corporate practices in a stable legal environment. These efforts contribute to reinforcing sustainability and earning the trust of all stakeholders.

### 1. Minimizing Legal Risks

The company adheres to domestic and international regulations including trade laws and local statutes, proactively preventing legal disputes and mitigating regulatory risks to help maintain business stability.

### 2. Building Stakeholder Trust

Honest and transparent operations reinforce stakeholder confidence, including customers, partners, and investors.

### 3. Fostering a Sustainable Management Environment

Through compliance driven management, the company fulfills its social responsibilities, advancing environmental protection and social value creation. While strengthening its corporate image, the company is unlocking long-term growth opportunities.

### 4. Establishing a Risk Management System

The company goes beyond legal compliance by integrating compliance risks into the company-wide risk management system. By identifying, assessing, and addressing risks across its business, PI Advanced Materials is addressing business risks holistically.

### 5. Building Mutual Growth through Compliance with Partners

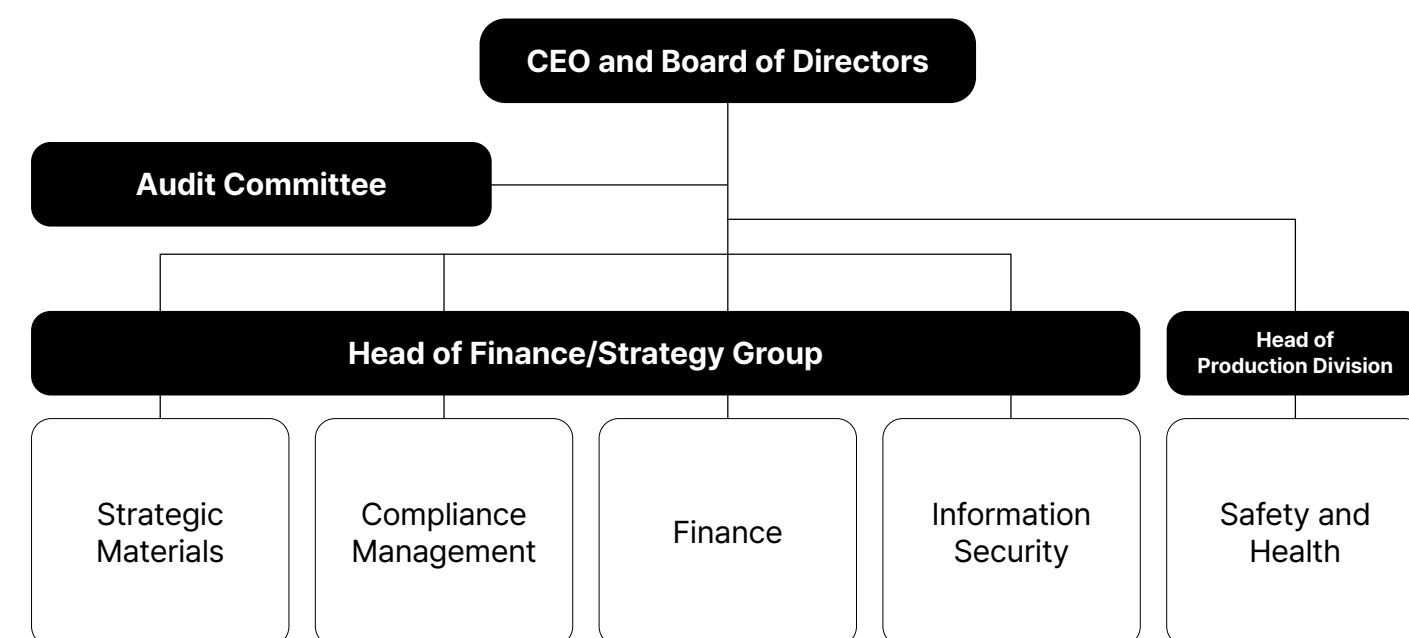
By extending its compliance management principles to partners, the company promotes ethical practices and legal compliance throughout the supply chain, enhancing the sustainability of the broader business ecosystem.

# Risk Management

## Risk Management Overview

PI Advanced Materials operates a company-wide risk management system led by the CEO, designed to enable proactive risk prevention and effective crisis response. The system focuses on six core risk domains: compliance management, safety and health, finance, information security, supply chain, and strategic materials. These areas are monitored to identify and address potential threats. Key risks are evaluated in the context of social and geopolitical factors, case studies of industry incidents, and internal historical data. The identified risks are evaluated based on their likelihood potential impact to ensure strategic prioritization and prevention. For each type of risk, the Finance/Strategy Group and Production Division serve as control towers. They take a proactive role in minimizing risks by conducting preliminary assessments and establishing response systems when making decisions related to investment, new business ventures, and operations. In particular, financial risks are overseen through a structured reporting framework involving both management and the Board of Directors, while ESG-related risks are managed by dedicated teams. Going forward, PI Advanced Materials plans to develop a board reporting system focused on major ESG risks, reinforcing its commitment to comprehensive and accountable risk management.

## Risk Management Organization



## Risk Management Process

PI Advanced Materials operates an enterprise-level risk management system to proactively identify, assess, and mitigate risks. Employees adhere to standardized crisis management protocols to ensure operational readiness.

### ① Risk Identification

Analyze long-term strategic objectives and departmental functions to detect risks from multiple angles.

### ② Risk Inspection

Assess environmental and operational factors during business planning and investment decisions to minimize risk exposure and embed safeguards in decision-making.

### ③ Risk Response

In the event of a crisis, deploy a company-wide response system guided by a crisis response manual, prioritizing the safety and well-being of employees.

### ④ Corrective Action Management

After resolution, implement corrective actions and verify improvements through scenario planning and simulation training to prevent recurrence.

## Risk Management Matrix

Risk Area	Risk Type	Managing Team	Task Force/ Working Committee
<b>Strategic Materials</b>	Export/import regulations, strategic materials management failure, and supply chain risk	Strategic Planning/ ESG Team, Legal and Compliance Team, Business Division, Plant Management Team	Autonomous Export Control Team
<b>Information Security</b>	Personal information leakage, system hacking, internal information management failure	IT Team	Ad-hoc Concil led by relevant departments
<b>Finance</b>	Exchange rate and interest rate fluctuations, investment failure, liquidity issues, tax non-compliance, tax investigation risks	Accounting Team, Treasury Team, Legal and Compliance Team	Investment Review Committee
<b>Compliance Management</b>	Regulatory violations, violation of duty, failure of internal controls, non-compliance with regulations	Legal and Compliance Team, Business Division	Compliance Management Council
<b>Safety and Health</b>	Industrial accidents, violations of the Serious Accident Punishment Act, safety incidents	Safety and Environment Team, HR Team	Industrial Safety and Health Committee

# Strategic Material Management

## Strategic Material Management Overview

PI Advanced Materials is committed to preventing the inappropriate use of strategic materials and contributing to international peace by adhering to the requirements of the Foreign Trade Act. Strategic material management applies to all employees and supply chain partners, reinforcing systematic oversight and stability across operations. The company ensures clearly defined roles and responsibilities, enabling secure, ethical, and transparent handling of strategic materials throughout the value chain.

## Strategic Material Management System

PI Advanced Materials maintains a rigorous strategic materials management system governed by internal controls and external verification processes.

In September 2024, the company fully revised its existing regulations into the Autonomous Export Control Regulations and established the Autonomous Export Control Team to strengthen its oversight. The company also enhanced its internal procedures and systems for managing strategic materials. This includes conducting regular education and training so that employees can accurately understand and comply with applicable legal and policy requirements. The Autonomous Export control Team has implemented a structured management

framework by designating lead departments and responsible individuals for managing strategic materials. Through this organized approach, PI Advanced Materials ensures that strategic materials are managed safely and responsibly, fostering trust among customers and society while bolstering competitiveness in the global market. PI Advanced Materials continuously reviews and refines its regulations to optimize strategic material management and uphold operations that align with international best practices. Ultimately, this system contributes to international peace and national security while reinforcing PI Advanced Materials' position as a sustainable industry leader.

## Strategic Material Management Policy

### 1. Understanding material Characteristics and Importance

Polyimide materials possess exceptional properties including high-temperature resistance, mechanical strength, and chemical stability, making them essential in critical sectors such as aerospace, electronic devices, and automobile industries. Given their significance, the company enforces stringent strategic material management practices to safeguard their responsible use.

### 2. Thorough Verification of Trading Partners

PI Advanced Materials conducts a thorough verification for customers and business partners to ensure the safe and lawful export of strategic materials. For all new customers, the company screens any links to restricted entities and verifies both the end user and intended application to prevent unlawful or unethical use, such as weapons of mass destruction development.

### 3. Export Control and Management of Restricted Parties

PI Advanced Materials meticulously oversees its strategic material exports preventing their distribution to restricted parties or their use for unlawful purposes, such as weapons of mass destruction. In 2024, all new customer registrations underwent careful screening to determine restricted party status. Strategic materials are exported only after securing the necessary permits, with detailed checks on end user identity and intended use. This process ensures legal compliance and contributes to global peace and security.

### 4. Training and Education Programs

In 2024, two members of the Autonomous Export Control Team completed training in strategic materials. The trained members were able to deepen their understanding of legal and regulatory requirements and strengthen their capability to manage strategic materials effectively. The training laid a foundation for more responsible and efficient practices aligned with international standards.

## Regulated Strategic Materials

Item	HS Code	Specifications	Date Decided	Validity Period
Polyimide molded products	3920999090	318*318*5~65(mmT) 99.5*99.5*5~65(mmT)	April 2, 2024	2 years

# Financial Management and Tax Risk

## Financial Management Overview

PI Advanced Materials is enhancing its internal accounting control and tax risk management systems to promote sustainable management, with financial soundness and tax transparency as core pillars. The company identifies and evaluates financial risks, including exchange rate volatility, interest rate fluctuations, investment feasibility, and liquidity challenges, through a structured pre-assessment process. Its internal accounting control system is designed and maintained in line with best practice standards, with regular reporting to the Audit Committee and the Board of Directors to strengthen transparent financial disclosure and internal controls. Through these efforts, PI Advanced Materials provides stakeholders with reliable financial information, supporting informed decision making and long-term value creation. In recognition of these practices, the company was honored with the 'Excellent Disclosure Company' award by the Korea Exchange in 2024.

## Internal Accounting Control System Overview

PI Advanced Materials operates a robust internal accounting control system as a core mechanism for managing financial risks and reinforcing transparent governance by enhancing the accuracy, consistency, and reliability of accounting information. The company's accounting policies and procedures are standardized, and regular internal audits and evaluations are conducted to identify and address issues, providing stakeholders with confidence in the company's financial integrity. The system is designed and managed in accordance with the "Act on External Audit of Stock Companies, Etc." and best practice guidelines.

### 1. Internal Accounting Control Regulations

Clear roles and responsibilities are defined for all employees engaged in the internal accounting control. Standards for system design, operation, evaluation, and reporting procedures are established along with internal guidelines to ensure effective

implementation.

### 2. Dedicated Organization and Control Systems

The internal accounting control organization functions across enterprise, process, and general IT levels through an integrated framework. It continuously adapts to shifts in the business environment, ensuring system resilience and improvement.

### 3. Reporting and Evaluation of Operational Status

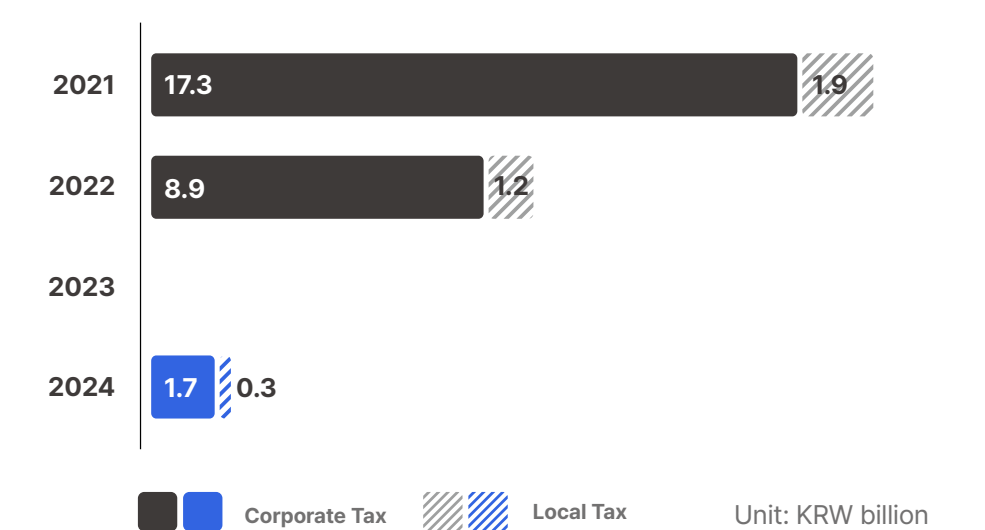
The CEO conducts an annual review of the system's operational status, reporting findings to the Audit Committee, the Board of Directors, and the General Meeting of Shareholders. The Audit Committee evaluates the system's adequacy and effectiveness, sharing outcomes with management and the Board to oversee corporate governance and risk control.

## Investment Review Committee

PI Advanced Materials operates the Investment Review Committee to assess potential risks associated with investment activities to evaluate the reliability and profitability of investment decisions. The committee conducts comprehensive evaluations of the company's financing capacity, market dynamics, and investment feasibility, with a particular focus on identifying potential risks in large-scale capital expenditures and ensuring alignment with the company's financial strategy. The committee is composed of senior executives, including the CEO, the Chief Financial & Strategy Officer, R&D Center Director, Business Division Heads, and Production Division Heads. This structure ensures rational and informed decision making based on both financial and non-financial considerations. Post-investment, the company applies a follow-up system to monitor business stability and financial profitability. In addition, key indicators such as financial and business performance and changes in internal and external environments, are regularly reported to the Board of Directors. These updates serve to mitigate risks, enhance accountability and prevent recurrence.

## Tax Risk Management

PI Advanced Materials actively manages tax risks through strategic partnership and expert consultation. The company engages external professional tax advisors to enable prompt resolution of tax matters. In recognition of its commitment to tax transparency and regulatory compliance, the company was awarded the Presidential Citation for Exemplary Taxpayers in 2023. PI Advanced Materials aims to further strengthen stakeholder trust by advancing sustainable financial strategies and maintaining transparent, ethical tax policies that align with international standards.



# Information Security

## Information Security Management Overview

PI Advanced Materials operates a robust information security framework to safeguard corporate, customer, and stakeholder assets against external cybersecurity threats. The company particularly focuses on proactive risk prevention and rapid response to mitigate potential losses. Recognizing all collected data as a critical corporate asset, the company is strengthening its digital security protocols to ensure protection from loss, theft, leakage, forgery, tampering, and damage.

## Information Security Management System

PI Advanced Materials designates a Personal Information Protection Officer in accordance with Article 31, Paragraph 1 of the "Personal Information Protection Act" and operates a comprehensive information security framework grounded in applicable legal

standards. To ensure secure data management across internal and outsourced systems, the company enforces formal processing contracts with external operators. Robust safeguards are deployed to prevent data breaches and unauthorized access, including DRM, media controls, server/DB access controls, VPN protocols, and malicious content filtering solutions. For physical document protection, secure multifunction devices utilized to limit risks associated with printed information. The company conducts regular training to raise security awareness and incident response capabilities, including annual phishing email simulation drills and cyber penetration tests. To increase security awareness, the company also shares case studies of the latest security threats with all employees. In addition, company-wide information security training programs are implemented to cultivate cybersecurity awareness and elevate employee's responsiveness to emerging threats.

## Information Security Policy

PI Advanced Materials operates a structured information security management framework based on its Information Security Management Regulations. This includes five detailed policy guidelines, such as Personal Information Protection Guidelines and Security Incident Response Guidelines. The company's information security organization consists of the Information Security Officer, Information Security Administrator, and Deputy Information Security Administrators, with clearly defined roles and responsibilities. As part of its annual business planning cycle, the company proactively reviews and incorporates measures to strengthen managerial, physical, and technical aspects of information security. These enhancements are embedded into organizational strategy, supporting ongoing improvements of security capabilities and resilience.

## Information Security Operations Management

PI Advanced Materials operates a practical and accountable information security management system structured in accordance with the Information Security Management Regulations. To reinforce system integrity, the company conducts routine evaluations of its security policies and operational practices through independent third-party verification agencies. Insights and recommendations from these evaluations are promptly incorporated into the internal security system. Through this process of external verification and subsequent improvements, PI Advanced Materials proactively mitigates security risks, elevates its information security capabilities, and strengthens its preparedness to prevent personal data breaches.

## Information Security Management Procedures

### 1. Risk Identification

Identify and document potential internal and external threats and vulnerabilities related to information assets.

### 2. Risk Analysis

Evaluate the likelihood and impact of identified risks. Determine the risk profile based on possible occurrence and consequences.

### 3. Risk Assessment

Prioritize risks using analytical insights to determine which risks require focused management and resource allocation.

### 4. Risk Response

Develop and implement risk mitigation strategies including avoidance, reduction, transfer, or acceptance of each risk.

### 5. Risk Monitoring and Review

Monitor implemented controls and risk environment. Detect emerging threats, evaluate the effectiveness of current strategies, and revise actions as necessary for improvement.

## Information Security Training

Frequency	Item	Training Provider	Target	Method
Quarterly	Precautions on phishing emails	IT Team	All employees	Online
Annual	Information on Personal Information Protection Act	IT Team	Employees responsible for handling personal information	Online

[ESG Data](#)

[GRI Index](#)

[UNGC](#)

[Greenhouse Gas Emissions/Verification Statement](#)

[Auditor's Report](#)

[Independent Assurance Statement](#)

# Appendix

ESG Data

# Financials and R&D

## Financial Performance

Category	Unit	2021	2022	2023	2024
Total assets	KRW million	472,960	498,997	517,946	527,526
Current assets	KRW million	196,376	131,678	128,135	159,840
Cash and cash equivalents	KRW million	*105,464	16,404	56,412	82,815
Total liabilities	KRW million	147,071	157,543	203,027	189,617
Current liabilities	KRW million	108,648	64,536	87,959	74,936
Short and long term borrowings	KRW million	58,181	96,515	153,409	139,415
Total equity	KRW million	325,889	341,453	314,919	337,910
Retained earnings	KRW million	201,797	217,361	190,827	213,593
Current ratio	%	180.7%	204.0%	145.7%	213.3%
Debt-to-equity ratio	%	45.1%	46.1%	64.5%	56.1%
Debt-to-asset ratio	%	12.3%	19.3%	29.6%	26.4%

Category	Unit	2021	2022	2023	2024
Sales	KRW million	301,869	276,440	217,639	251,295
Cost of goods sold	KRW million	197,784	196,877	192,335	187,335
Gross profit	KRW million	104,085	79,563	25,304	63,960
Gross profit margin	%	34.5%	28.8%	11.6%	25.5%
EBITDA	KRW million	99,560	77,951	25,345	67,326
EBITDA margin	%	33.0%	28.2%	11.6%	26.8%
Operating profit	KRW million	75,858	52,135	(3,938)	34,932
Operating profit margin	%	25.1%	18.9%	(1.8%)	13.9%
Financial income	KRW million	546	669	829	1,791
Financial expenses	KRW million	932	704	3,531	6,576
Other gains and losses	KRW million	7,842	1,879	(8)	(23)
Pre-tax profit	KRW million	83,314	53,978	(6,647)	30,125
Net income	KRW million	64,000	45,710	(1,796)	23,377

\* Including short-term financial instruments

## ESG Data

# Financials and R&D

### Economic Performance

#### Sale by Product Segment

Category	Unit	2021	2022	2023	2024
FPCB	KRW billion	1,211	1,103	1,053	1,152
Graphite Sheet	KRW billion	1,062	999	534	731
Advanced Industrials	KRW billion	746	662	589	630

#### Distribution of Economic Gains

Category	Unit	2021	2022	2023	2024	
Shareholder/ Investor	Dividends	KRW million	32,009	22,876	-	10,286
	Interest expense	KRW million	931	704	3,531	5,055
<b>Total</b>	KRW million	32,940	23,580	3,531	15,341	
Employee	Labor costs*	KRW million	41,997	38,096	43,636	43,423
Corporate Income Tax	KRW million	19,314	8,268	(4,852)	6,748	

\*Labor costs: includes salary, severance pay, and welfare benefits

### R&D Performance

#### R&D Overview

Category	Unit	2021	2022	2023	2024
Number of R&D Employees	Person	39	39	37	35
R&D Investment	KRW million	9,145	9,935	10,396	9,836

#### Intellectual Property Rights

Category	Unit	2021	2022	2023	2024	
Status of Patent Registrations	Relevant Year	Case	59	68	74	77
	Cumulative	Case	178	245	319	*394
Employee Incentives for Patent Filing and Registration	KRW million	24	39	47	35	
Patent Maintenance Fees	KRW million	24	37	82	111	

\* Expiration of Two Patents in 2024

ESG Data

# Environmental Performance

## 1. Air Pollutant Emissions

Air Pollutant	Business Site	Unit	2021	2022	2023	2024
Nitrogen Oxides (NOx)	Jincheon	ton	111.34	83.39	34.37	78.16
	Gumi		23.03	25.71	22.74	27.37
	<b>Total</b>		<b>134.37</b>	<b>109.1</b>	<b>57.1</b>	<b>105.53</b>
Sulfur Oxides (SOx)	Jincheon	ton	14.52	10.72	4.04	8.39
	Gumi		0.64	4.56	0	2.30
	<b>Total</b>		<b>15.17</b>	<b>15.28</b>	<b>4.04</b>	<b>10.69</b>
Particulate Matter (PM)	Jincheon	ton	4.71	2.90	2.06	2.63
	Gumi		2.22	1.54	1.3	2.05
	<b>Total</b>		<b>6.93</b>	<b>4.44</b>	<b>3.36</b>	<b>4.68</b>
<b>Total</b>	Jincheon	ton	130.57	97.00	40.47	89.18
	Gumi		25.89	31.81	24.04	31.72
	<b>Total</b>		<b>156.46</b>	<b>128.81</b>	<b>64.5</b>	<b>120.9</b>

\* Prepared in accordance with the Smart Emission Management System (SEMS).

## 2. Water Usage / Wastewater Discharge

Category	Plant	Unit	2021	2022	2023	2024
Water Intake Volume	Jincheon	ton	230,654	197,830	149,841	168,665
	Gumi		167,857	230,063	189,089	159,040
	<b>Total</b>		<b>398,511</b>	<b>427,893</b>	<b>338,930</b>	<b>327,705</b>
Wastewater Discharge	Jincheon	ton	12,289	9,187	11,382	10,796
	Gumi		37,157	32,686	25,371	28,161
	<b>Total</b>		<b>49,446</b>	<b>41,873</b>	<b>36,753</b>	<b>38,957</b>
Water Usage	Jincheon	ton	218,365	188,643	138,459	157,869
	Gumi		130,700	197,377	163,718	130,879
	<b>Total</b>		<b>349,065</b>	<b>386,020</b>	<b>302,177</b>	<b>288,748</b>

Water usage = Intake volume - Discharge volume

\* Jincheon Plant figures for 2021-2023 revised based on updated site measurements..

## ESG Data

# Environmental Performance

### 3. Water Pollutants

Water pollutants	Plant	Unit	2021	2022	2023	2024
Biological Oxygen Demand (BOD)	Jincheon	ton	0.053	0.0167	0.0187	0.0099
	Gumi		0.0669	0.3138	0.1954	0.2353
	<b>Total</b>		<b>0.1199</b>	<b>0.3305</b>	<b>0.2141</b>	<b>0.2452</b>
Suspended Solids (SS)	Jincheon	ton	0.027	0.013	0.022	0.011
	Gumi		0.074	0.2027	0.137	0.364
	<b>Total</b>		<b>0.1013</b>	<b>0.2157</b>	<b>0.159</b>	<b>0.375</b>
Total Organic Carbon (TOC)	Jincheon	ton	-	0.0927	0.1004	0.0449
	Gumi		-	0.3269	0.2004	0.3477
	<b>Total</b>		<b>-</b>	<b>0.4196</b>	<b>0.3008</b>	<b>0.3926</b>

(TOC has been measured since 2022)

### 4. Chemical Emissions

	Business Site	Unit	2021	2022	2023	2024
Chemical Emissions	Jincheon	ton	37.25	20.41	4.36	14.52
	Gumi		10.66	6.43	4.26	4.78
	<b>Total</b>		<b>47.91</b>	<b>26.84</b>	<b>8.63</b>	<b>19.30</b>

### 5. Environmental Investment

Category	Unit	2021	2022	2023	2024
Environment Energy	KRW million	830	864	366	346
Waste		3,683	4,770	-	-

### 6. Environmental Inspection

	Category	Unit	2021	2022	2023	2024
Environmental Guidance and Inspection	Number of Inspections	case	7	3	2	20
	Number of Violations of Laws and Regulations		0	0	0	2
	Administrative Fine	KRW	-	-	-	6,400,000

ESG Data

# Environmental Performance

## 7. Greenhouse Gas Emissions

Category		Site	Unit	2021	2022	2023	2024
Greenhouse Gas Emissions	Direct Emissions (Scope1)	Jincheon	tCO <sub>2</sub> eq	26,506	22,468	16,816	23,186
		Gumi		934	1,058	880	1,727
		Seoul		72	19	73	50
		<b>Total</b>		<b>27,512</b>	<b>23,545</b>	<b>17,769</b>	<b>24,963</b>
	Indirect Emissions (Scope2)	Jincheon	tCO <sub>2</sub> eq	34,391	33,104	25,285	32,337
		Gumi		32,975	51,382	46,570	57,890
		Seoul		37	21	22	21
		<b>Total</b>		<b>67,403</b>	<b>84,507</b>	<b>71,877</b>	<b>90,248</b>
	Total (Scope1 +Scope2)	Jincheon	tCO <sub>2</sub> eq	60,897	55,572	42,101	55,522
		Gumi		33,909	52,440	47,449	59,617
		Seoul		109	40	95	71
		<b>Total</b>		<b>94,915</b>	<b>108,052</b>	<b>89,645</b>	<b>115,210</b>
Greenhouse Gas Emissions Intensity (Scope1+2)	Emissions to Sales		tCO <sub>2</sub> eq /KRW billion	<b>314.42</b>	<b>390.93</b>	<b>411.90</b>	<b>458.46</b>

\*Prepared based on the 2024 greenhouse gas statement

\*Since 2022, the steam consumption figures at the Gumi plant have been corrected, resulting in changes to the total amount.

## 8. Energy Consumption

Category		Site	Unit	2021	2022	2023	2024
Energy Usage	Total Energy Usage	Jincheon	TJ	914	938	701	878
		Gumi		683	870	793	988
		Seoul		1	0	1	1
		<b>Total</b>		<b>1,598</b>	<b>1,808</b>	<b>1,495</b>	<b>1,867</b>
Energy Intensity	Usage Energy to Sales		TJ/KRW billion	<b>5.29</b>	<b>6.54</b>	<b>6.87</b>	<b>7.43</b>

\*Since 2022, the steam consumption figures at the Gumi plant have been corrected, resulting in changes to the total amount.

## ESG Data

# Environmental Performance

### 9. Waste Generation Volume

Category	Site	Unit	2021	2022	2023	2024
General Waste Generation	Jincheon	ton	921	835	532	1,074
	Gumi		295	354	363	332
	Seoul		2	1	3	6
	<b>Total</b>		<b>1,218</b>	<b>1,190</b>	<b>898</b>	<b>1,412</b>
Designated Waste Generation	Jincheon	ton	19,336	21,387	12,149	20,663
	Gumi		7,301	7,554	5,564	6,477
	Seoul		-	-	-	-
	<b>Total</b>		<b>26,637</b>	<b>28,941</b>	<b>17,713</b>	<b>27,140</b>
Total Waste Generation	Jincheon	ton	20,258	22,223	12,681	21,737
	Gumi		7,596	7,908	5,927	6,809
	Seoul		2	1	3	3
	<b>Total</b>		<b>27,855</b>	<b>30,132</b>	<b>18,611</b>	<b>28,459</b>
Waste Recycling Volume	Jincheon	ton	19,885	21,498	12,543	20,872
	Gumi		7,037	7,219	5,559	6,302
	Seoul		-	-	-	-
	<b>Total</b>		<b>26,922</b>	<b>28,717</b>	<b>18,102</b>	<b>27,174</b>

### 11. Waste Recycling Rate

Category	Unit	2021	2022	2023	2024
Generation Volume	ton	27,855	30,132	18,611	28,552
Recycling Volume	ton	26,922	28,717	18,102	27,174
Recycling Rate	%	96.7	95.3	97.3	95.2

### 10. Waste Treatment Volume

Category	Site	Unit	2021	2022	2023	2024
General Waste Treatment - Incineration	Jincheon	ton	-	-	-	-
	Gumi		164	290	150	139
	<b>Total</b>		<b>164</b>	<b>290</b>	<b>150</b>	<b>139</b>
General Waste Treatment - Landfill	Jincheon	ton	-	-	-	352
	Gumi		7	11	6	7
	<b>Total</b>		<b>7</b>	<b>11</b>	<b>6</b>	<b>359</b>
General Waste Treatment - Recycling	Jincheon	ton	922	832	525	717
	Gumi		123	54	208	185
	<b>Total</b>		<b>1044</b>	<b>886</b>	<b>733</b>	<b>902</b>
Designated Waste Treatment - Incineration	Jincheon	ton	385	456	366	515
	Gumi		386	364	258	297
	<b>Total</b>		<b>771</b>	<b>820</b>	<b>624</b>	<b>812</b>
Designated Waste Treatment - Landfill	Jincheon	ton	-	-	-	0
	Gumi		0.03	-	-	2.16
	<b>Total</b>		<b>0.03</b>	<b>-</b>	<b>-</b>	<b>2.16</b>
Designated Waste Treatment - Recycling	Jincheon	ton	18,965	20,666	12,018	20,155
	Gumi		6,914	7,165	5,351	6,117
	<b>Total</b>		<b>25,879</b>	<b>27,831</b>	<b>17,369</b>	<b>26,272</b>

\* Correction of misreported information in the previous year's report

### 12. Wastewater Reuse

Site	Unit	2021	2022	2023	2024
Gumi	ton	-	650	15,341	29,473

ESG Data

# Social Performance

## 1. Status of Employee Diversity

Category	Unit	2021	2022	2023	2024	
<b>Total Number of Employees</b>	person	310	329	337	330	
<b>By Age Group</b>	Under 18 years old	0	0	0	0	
	18 to under 20 years old	0	0	0	0	
	20 to under 30 years old	54	55	62	51	
	30 to under 50 years old	163	185	194	208	
	50 years old and above	93	89	81	71	
<b>Gender Balance</b>	Total Female Employees	22	22	25	31	
	Executives (Female)	11 (0)	12 (0)	12 (0)	11 (0)	
	Managers (Female)	42 (0)	40 (0)	51 (0)	47 (1)	
	Team Members (Female)	257 (22)	277 (22)	274 (25)	272 (30)	
<b>Employment Type</b>	Regular	Male	284	301	308	292
		Female	20	22	25	30
	Non-regular	Male	4	6	4	7
		Female	2	-	-	1
Employment of Disabled Persons	person	1	1	0	0	
Employment of National Veterans	person	9	9	8	6	

## 2. Labor-management Council Activities

Category	Unit	2021	2022	2023	2024
<b>Collective Bargaining</b>	Number of Meetings	7	8	6	6
<b>Labor-Management Council</b>	Number of Meetings	11	12	12	12

\* Labor-Management Council : the number of meeting held at all business sites (Seoul/Gumi/Jincheon)

## 3. Average Years of Employment

Category	Unit	2021	2022	2023	2024
<b>Male</b>	Year	14.6	13.1	12.3	11.7
<b>Female</b>	Year	7.3	8.2	7.3	6.5

## 4. New Hires and Employee Turnovers

Category	Unit	2021	2022	2023	2024
<b>Total Employees</b>	Person	310	329	337	330
<b>New Employment</b>	Male	29	60	51	32
	Female	4	1	6	7
<b>Turnover</b>	Male	21	44	52	40
	Female	4	1	3	1
<b>Turnover Rate</b>	%	8	15	17	12

## ESG Data

# Social Performance

### 5. Average Employee Salary

Category		Unit	2021	2022	2023	2024
Average Salary	Male	KRW 1,000	117,000	94,000	111,000	95,000
	Female	KRW 1,000	64,000	54,000	71,000	59,000
Gender Pay Ratio		%	54.7	57.5	64.0	62.1

### 6. Employee Medical Benefits

Category		Unit	2021	2022	2023	2024
Health Checkups	Eligible Employees	Person	282	320	312	326
	Allowance	KRW million	170	194	155	130
Medical Expense Support		KRW million	743	818	994	990

### 7. Employee Welfare Benefits

Category		Unit	2021	2022	2023	2024
Welfare Benefits		KRW million	5,743	6,714	6,756	7,399

### 8. Status of Parental Leave Usage

Category		Unit	2021	2022	2023	2024
Number of Employees Taking Parental Leave	Total	Person	2	1	2	4
	Female	Person	1	1	1	0
	Male	Person	1	0	1	4
Employees Expected to Return to Work After Parental Leave	Female	Person	-	-	1	1
	Male	Person	-	-	0	4
Employees Who Returned to Work After Parental Leave	Female	Person	-	-	0	1
	Male	Person	-	-	0	3
Return-to-Work Rate After Parental Leave	Female	%	-	-	0	100
	Male	%	-	-	-	75

\* Tracking return-to-work data for parental leave takers since 2022

### 9. Career Transition Program

Category		Unit	2021	2022	2023	2024
Reemployment as Fixed-term Workers		Person	3	3	6	-
Retirement Program		Times / Person	1/6	1/6	1/10	1/12

## ESG Data

# Social Performance

### 10. Overview of Employee Training / Education Support Programs

Category	Unit	2021	2022	2023	2024
Training Expenses per Person	KRW	960,000	1,262,000	1,285,000	1,237,000
Total of Training Expenditure	KRW million	297.3	415.1	432.9	408.2
Training Completion Rate	%	96	96	97	99
Participants in Degree Support Program (Master's, Ph.D., MBA)	Person	-	2	3	2

### 11. Occupational Accidents and Violations

Category	Unit	2021	2022	2023	2024	
Number of Employees	Person	310	329	337	330	
Number of Occupational Accidents	Case	0	0	0	1	
Occupational Injury Rate	%	0	0	0	0.31	
Accident Frequency Rate	%	0	0	0	1.26	
Lost Time Injury Rate (LTIR)	%	0	0	0	0	
Safety Regulation Violations	Number of Violations	Case	1	0	0	3
	Fines	KRW 1,000	960	0	0	10,000

### 12. Safety and Health Management Status

Category	Unit	2021	2022	2023	2024	
Safety and Health Training and Evaluation	Safety and Health Training	Case	24	24	24	21
	Emergency Response Training	Case	9	8	8	13
	Online Training Completion Rate	%	100	100	100	100
	Risk Assessment		●	●	●	●
Health and Wellness Support	Health Checkup		●	●	●	●
	Compliance Rate of Health Checkup for At-risk Employees	%	100	100	100	100

### 13. Safety and Health Management Status of Partner Companies

Category	Training Title	Unit	2021	2022	2023	2024
Status of Support Provided to Partner Companies	Safety Training (Conducted by Partner Companies)	Case	24	24	24	24
	Emergency Response Training	Case	9	8	8	8
	Risk Assessment	Case	2	3	2	3
	Health Checkup Support for At-risk Employees	KRW 1,000	2,690	2,380	780	800
Status of Occupational Accident Occurrences	Number of Occupational Accidents	Case	0	0	0	0
	Occupational Accident Rate	%	0	0	0	0
	Accident Frequency Rate	%	0	0	0	0
	Lost Time Injury Rate (LTIR)	%	0	0	0	0

\* Assessment Target: On-site partner companies at PI Advanced Materials

## ESG Data

# Social Performance

### 14. Customer Complaint Occurrence / Resolution Rate

Category	Unit	2021	2022	2023	2024
Occurrence Rate (As % of Sales)	%	0.43	0.10	0.35	0.02
Complaints Resolved	%	100	100	100	100

### 15. Supply Chain Management Status

Category	Unit	2021	2022	2023	2024	
Total Number of Partner Companies	Number	232	288	238	172	
Supply Chain Management	Supplier Evaluations	Number	38	37	34	34
	Partner Companies Requiring Corrective Actions	Number	8	3	3	9
	Corrective Action Implementation Rate	%	100	100	100	100
	Partner Companies with Terminated Relationships	Number	0	0	0	0

\* Total number of suppliers: Includes all raw materials, packaging, logistics, and maintenance service providers engaged in transactions during the year

### 16. Social Contribution to Local Communities

Category	Unit	2021	2022	2023	2024
Corporate Social Contribution Fund	KRW million	64.7	49.6	48.6	51.5

### 17. Overview of Cybersecurity Investmens

Category	Unit	2021	2022	2023	2024	
Cybersecurity Investment*	Amount	KRW 1,000	174,331	259,138	358,706	382,232
	As % of IT Budget	%	6.8	9.0	10.9	10.4

\* Adjusted according to Disclosure Standards

### 18. Overview of Cybersecurity and Personal Data Breach Incidents

Category	Unit	2021	2022	2023	2024
Total Number of Data Breach Incidents	Case	0	0	0	0
Number of Corporate Data and Customer Information Breach Incidents	Case	0	0	0	0
Amount of Fines for Violating Data Protection Laws	KRW 1,000	0	0	0	0
Cybersecurity Training		●	●	●	●

## ESG Data

# Governance Performance

### 1. Board of Directors Operational Overview

Operation	Unit	2021	2022	2023	2024	
Convening	Number of Meetings	Times	9	8	10	6
Reporting and Resolutions	Number of Agenda Items	Case	27	22	30	27
Board Resolutions	Approval	%	100	100	100	100
	Opposition and Abstention	%	-	-	-	-

### 2. Average Board Attendance Rate

Operation	Unit	2021	2022	2023	2024
Board Attendance Rate	%	100	100	100	100

### 3. Major Shareholders

Shareholder	Number of Shares	Ownership(%)	Note
Arkema Korea Holding Co., Ltd.	15,877,400	54.07	Largest shareholder
National Pension Service	2,218,574	7.55	
Employee Stock Ownership Association	42,845	0.15	

### 4. Board Evaluation and Compensation

Category	Unit	Number of Members	Total Compensation	Average Compensation per Person
Registered Directors	KRW million	4	366	92
Independent Directors (Excluding Audit Committee Members)		-	-	-
Audit Committee Members		3	74	25

### 5. Audit Committee Operational Overview

Operation	Unit	2021	2022	2023	2024	
Convening	Number of Meetings	Times	2	2	3	2
Reporting and Resolutions	Number of Agenda Items	Case	5	5	7	8
Audit Committee Resolutions	Approval	%	100	100	100	100
	Opposition and Abstention	%	-	-	-	-

### 6. Dividend Payout

Category	Unit	2021	2022	2023	2024
Dividend per Share	KRW	1,090	779	-	350
Dividend Payout Ratio	%	50.01	50.05	-	44.00
Total Dividend Amount	KRW million	32,009	22,876	-	10,286

## ESG Data

# Governance Performance

### 7. Tax Payment Status

Category	Unit	2021	2022	2023	2024
Corporate Tax	KRW billion	173	89	-	17
Local Tax	KRW billion	19	12	-	3

### 8. Awards and Recognitions

Category	Unit	2021	2022	2023	2024
Tax	Times	-	1	1	-
Disclosure	Times	-	-	-	1

Awarded Gumi City's Commendation for Diligent Taxpayer Company in 2022 / Recognized by the National Tax Service as an Outstanding Taxpayer in 2023 / Selected as an Excellent Disclosure Company by Korea Exchange in 2024

### 9. Ethics Training

Training Details	Unit	2021	2022	2023	2024
Employee Ethics Training Hours (Including Sexual Harassment Prevention, Workplace Harassment, and Disability Awareness)	Hour	1,172	1,292	1,344	1,312
Employee Ethics Training Completion Rate	%	97	99	99	99
Ethical Management Training Hours	Hour	291	288	312	-
Ethical Management Training Completion Rate	%	96	88	90	-
Adoption Rate of Ethics and Practice Guidelines	%	100	100	100	100

### 10. Fair Trade Training

Training Details	Unit	2021	2022	2023	2024
Employee Fair Trade Training Hours	Hour	-	-	314	55
Employee Fair Trade Training Completion Rate	%	-	-	100	100

\* Fair Trade Training was conducted for all employees in 2023. In 2024, the training was limited to relevant teams only.

# GRI Index

Index	Content	Report Page	Remarks
<b>GRI 2 : General Disclosures 2021</b>			
<b>The Organization and its Reporting Practices</b>	2-1	Organizational details	06-07
	2-2	Entities included in the organization's sustainability reporting	2
	2-3	Reporting period, frequency and contact point	2
	2-4	Restatements of information	2
	2-5	External assurance	81-82
<b>Activities and Workers</b>	2-6	Activities, value chain and other business relationships	6
	2-7	Employees	69
	2-8	Workers who are not employees	69
<b>Governance</b>	2-9	Governance structure and composition	50
	2-10	Nomination and selection of the highest governance body	50
	2-11	Chair of the highest governance body	50
	2-12	Role of the highest governance body in overseeing the management of impacts	51
	2-13	Delegation of responsibility for managing impacts	51
	2-14	Role of the highest governance body in sustainability reporting	52
	2-15	Conflicts of interest	54
	2-16	Communication of critical concerns	54-55
	2-17	Collective knowledge of the highest governance body	50
	2-18	Evaluation of the performance of the highest governance body	52
	2-19	Remuneration policies	52
2-20	Process to determine remuneration	52	
2-21	Ratio of annual remuneration paid	-	Ⓒ

Index	Content	Report Page	Remarks
<b>GRI 2 : General Disclosures 2021</b>			
<b>Strategy, Policies and Practices</b>	2-22	Statement on sustainable development strategy	5
	2-23	Policy commitments	15
	2-24	Embedding policy commitments	15
	2-25	Negative impact mitigation process	15
	2-26	Mechanisms for seeking advice and raising concerns	53
	2-27	Compliance with laws and regulations	56
	2-28	Affiliated associations	45
	<b>Stakeholder Engagement</b>	2-29	Approach to stakeholder engagement
2-30		Collective bargaining agreements	39
<b>GRI 3 : Material Topics 2021</b>			
<b>Material Topics</b>	3-1	Process to determine material topics	20
	3-2	List of material topics	21
	3-3	Management of material topics	21

Index	Content	Report Page	Remarks	
<b>Topic Standard</b>				
<b>GRI 205: Anti-corruption</b>	205-2	Communication and training on anti-corruption policies and procedures	56	
	205-3	Confirmed incidents of corruption and actions taken	-	Ⓐ
	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	-	Ⓐ
<b>GRI 205: Anti-corruption</b>	301-2	Materials used by weight or volume	33	
<b>GRI 302: Energy</b>	302-1	Energy consumption within the organization	27	
	302-2	Energy consumption outside of the organization	-	Ⓒ
	302-3	Energy intensity	27	
	302-4	Reduction of energy consumption	27	
	302-5	Reductions in energy requirements of products and services	-	Ⓐ
<b>GRI 303: Water and Effluents</b>	303-2	Management of water discharge-related impacts	31	
	303-3	Water withdrawal	31	
	303-4	Water discharge	31	
	303-5	Water consumption	31	
<b>GRI 305: Emissions</b>	305-1	Direct Greenhouse Gas Emissions (Scope1)	27	
	305-2	Indirect Greenhouse Gas Emissions (Scope2)	27	
	305-3	Other indirect Greenhouse Gas Emissions(Scope3)	-	Ⓒ
	305-4	GHG emissions intensity	27	
	305-5	Reduction of GHG emissions	27	
	305-6	Emissions of ozone-depleting substances (ODS)	-	Ⓐ
	305-7	Nitrogen Oxides (NOx), Sulfur Oxides (SOx), and other significant air emissions	30	

# GRI Index

Index	Content	Report Page	Remarks	
<b>Topic Standard</b>				
<b>GRI 306: Waste</b>	306-1	Waste generation and significant waste-related impacts	32	
	306-2	Waste by type and disposal method	32	
	306-3	Waste generated	32	
	306-4	Waste diverted from disposal	33	
	306-5	Waste directed to disposal	-	Ⓐ
<b>GRI 308: Supplier Environment Assessment</b>	308-1	New suppliers screened using environmental criteria	-	Ⓐ
	308-2	Negative environmental impacts in the supply chain and actions taken	48	
<b>GRI 401: Employment</b>	401-1	New employee hires and employee turnover	69	
	401-3	Parental leave	40	
<b>GRI 402: Labor/Management Relations</b>	402-1	Minimum notice periods regarding operational changes	39	
	403-1	Occupational health and safety management system	41	
<b>GRI 403: Occupational Health and Safety</b>	403-2	Hazard identification, risk assessment, and incident investigation	41-43	
	403-3	Occupational health services	40	
	403-4	Worker participation, consultation, and communication on occupational health and safety	42	
	403-5	Worker training on occupational health and safety	42	
	403-6	Promotion of worker health	40	
	403-7	Prevention and mitigation of occupational health and safety impacts	42	
	403-8	Workers covered by an occupational health and safety management system	42	
	403-9	Work-related injuries	71	
	403-10	Work-related illness	71	

Index	Content	Report Page	Remarks	
<b>Topic Standard</b>				
<b>GRI 404: Training and Education</b>	404-1	Average hours of training per year per employee	38	
	404-2	Programs for upgrading employee skills and career transition programs	38	
<b>GRI 414: Supplier Social Assessment</b>	414-1	New suppliers screened using social criteria	-	Ⓐ
	414-2	Negative social impacts in the supply chain and actions taken	47	
<b>GRI 416: Customer Health and Safety</b>	416-1	Assessment of the health and safety impacts of product and service categories	48	
<b>GRI 418: Customer Privacy</b>	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	61	

### GRI Standard: Four Reasons for Omission





Ⓐ	Ⓑ	Ⓒ	Ⓓ
Not applicable	Legal prohibitions	Confidentiality constraints	Information unavailable/incomplete

# UN Global Compact

The United Nations (UN) encourages companies to uphold and implement the Ten Principles of the United Nations Global Compact (UNGC), which encompass human rights, environment, labor, and anti-corruption, and to contribute to the realization of the 17 Sustainable Development Goals (SDGs) that address global economic, environmental, and social challenges.

PI Advanced Materials officially joined the UNGC in November 2024 and continues to align its operations with the Ten Principles, ensuring transparent disclosure of its performance in human rights, labor practices, environmental stewardship, and anti-corruption. As a global corporate citizen, PI Advanced Materials is committed to advancing the UN SDGs through its business strategies and sustainability initiatives.

## 10 Principles of the UNGC

UNGC Topic	Report Page
 <b>Human Rights</b> <ul style="list-style-type: none"> <li>1. Support and respect the protection of internationally proclaimed human right; and</li> <li>2. Ensure they are not complicit in human rights abuses.</li> </ul>	<p>36</p> <p>36</p>
 <b>Labour</b> <ul style="list-style-type: none"> <li>3. Businesses should Uphold the freedom of association and the effective recognition of the right to collective bargaining;</li> <li>4. Eliminate all forms of forced and compulsory labour;</li> <li>5. Abolish child labour; and</li> <li>6. Eliminate discrimination in respect of employment and occupation.</li> </ul>	<p>39</p> <p>36</p> <p>36</p> <p>36</p>
 <b>Environment</b> <ul style="list-style-type: none"> <li>7. Support a precautionary approach to environmental challenges;</li> <li>8. Undertake initiatives to promote greater environmental responsibility; and</li> <li>9. Encourage the development and diffusion of environmentally friendly technologies.</li> </ul>	<p>28</p> <p>31, 33, 34</p> <p>12</p>
 <b>Anti-Corruption</b> <ul style="list-style-type: none"> <li>10. Work against corruption in all its forms, including extortion and bribery</li> </ul>	<p>56, 27</p>

# Greenhouse Gas Emissions Verification Statement

## Scope of Verification

The verification covers all greenhouse gas emission sources under the company's operational control. Emissions were calculated for both direct and indirect sources (Scope 1 and 2)

## Verification Standards

Guidelines for Reporting and Certification of Emissions under the Emissions Trading Scheme (Ministry of Environment Notice No. 2025-28)

Verification Guidelines for the Operation of the Emissions Trading Scheme (Ministry of Environment Notice No. 2024-169)

## Conclusion of Verification

Based on the verification conducted, the following conclusions regarding the company's greenhouse gas emissions data are disclosed in the company's statement

- Greenhouse gas emissions for 2024 have been appropriately calculated in accordance with the Guidelines for Reporting and Certification of Emissions under the Emissions Trading Scheme.
- The result of the materiality assessment of 2024 greenhouse gas emissions indicates that emissions are lower than 500,000 tons CO<sub>2</sub>-eq, an amount that satisfies the quantitative threshold of less than 5% of total emissions.
- Accordingly, a reasonable assurance opinion is issued for the company's 2024 greenhouse gas emission data.

GV-25207

## Verification Opinion Statement

GHG Emissions

PI Advanced Materials Co., Ltd.

### Verification Target

Korean Foundation for Quality (hereinafter 'KFQ') has conducted a verification of Greenhouse Gas Emissions (hereinafter 'GHG Inventory') of PI Advanced Materials Co., Ltd.(hereinafter 'Company') for 2024.

### Verification Scope

KFQ's verification covered on all facilities and emission sources under the operational control and organizational boundary of Company during 2024.

### Verification Criteria

The verification process was based on [Rule for emission reporting and certification of greenhouse gas emission trading Scheme<sup>1)</sup>], [Rules for verification of operating the greenhouse gas emission trading scheme<sup>2)</sup>] and 'ISO14064-3' for every applicable part.

1) Notification No. 2025-28 of Ministry of Environment 2) Notification No. 2024-169 of Ministry of Environment

### Level of Assurance

The Verification has been planned and conducted as the 'Rules for verification of operating the greenhouse gas emission trading scheme', and the level of assurance for verification shall be satisfied as reasonable level of assurance. And it was confirmed through an internal review whether the process before the verification was conducted effectively.

### Verification Limitation

The verification shall contain the potential inherent limitation in the process of application of the verification criteria and methodology.

### Verification Opinions

Regarding to the data of the Greenhouse Gas Emission Consumption from the report through the verification, KFQ provides our verification opinions as below;

- The Inventory Report has been stated in accordance with "Rule for emission reporting and certification of greenhouse gas emission trading Scheme" and "ISO 14064-1". The totals in this verification statement do not match the totals in emission trading scheme because the total emissions of each facility are calculated by truncating to integer units.
- The result of material discrepancy satisfied the criteria for an organization that emits less than 500,000tCO<sub>2</sub>-eq shall not exceed 5% from total emission as per "Rules for verification of operating the greenhouse gas emission trading scheme".
- Thus, KFQ concludes that the Greenhouse Gas Emissions of Company in 2024 is correctly calculated and stated in accordance with "Rule for emission reporting and certification of greenhouse gas emission trading Scheme".

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

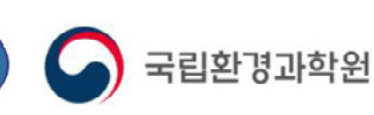
Scope 1	Scope 2	Total
24,963.101	90,248.828	115,210

\* The totals in this verification statement do not match the totals in emission trading scheme because the total emissions of each facility are calculated by truncating to integer units

September 1st, 2025

*Ji Young Song*

CEO Ji-Young Song  
Korean Foundation for Quality



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# Auditor's Report

## Opinion

We have audited the accompanying financial statements of PI Advanced Materials Co., Ltd. (the Company), which comprise the statements of financial position as at December 31, 2024 and 2023, and the statements of comprehensive income, statements of changes in equity and statements of cash flows for the year then ended, and notes to the financial statements, including material accounting policy information.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of PI Advanced Materials Co., Ltd. as at December 31, 2024 and 2023, and its financial performance and its cash flows for the years then ended in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS).

We also have audited, in accordance with Korean Standards on Auditing, the Company's Internal Control over Financial Reporting as of December 31, 2024, based on Conceptual Framework for Designing and Operating Internal Control over Financial Reporting, and our report dated February 24, 2025 expressed an unqualified opinion.

## Basis for Opinion

We conducted our audit in accordance with Korean Standards on Auditing. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the ethical requirements of the Republic of Korea that are relevant to our audit of the financial statements and we have fulfilled our other ethical responsibilities in accordance with the ethical requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## Other Matters

Auditing standards and their application in practice vary among countries. The procedures and practices used in the Republic of Korea to audit such financial statements may differ from those generally accepted and applied in other countries.

## Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

### Occurrence and cut-off of revenue from overseas sales

#### **Reason why the matter was determined to be a Key Audit Matter**

As described in Note 4 to the financial statements, the Company's overseas sales for the year ended December 31, 2024 amounted to KRW 161,264 million, accounting for 64% of total revenue. Overseas sales for the current period increased by KRW 35,554 million compared to that of the previous period, resulting in a increase of KRW33,656 million in the total revenue of the Company compared to that of the previous period.

There is a possibility of intentional adjustments or potential errors related to revenue recognition and cut-off of overseas sales due to the following reasons: 1) the timing of transfer of control varies depending on the contract and export conditions with the customers 2) the transfer of goods is made in overseas. Therefore, we focused on this area as we determined that there is a significant risk in relation to occurrence and cut-off of overseas sales.

### **How our audit addressed the Key Audit Matter**

We have performed the following audit procedures to address the Key Audit Matter.

- Assessing the reasonableness of the Company's accounting policies relevant to revenue recognition and cut-off
- Testing the design and operating effectiveness of certain internal controls over accuracy of revenue recognition process and cut-off of overseas sales
- Performing an analytical review compared to the previous period and monthly trend analysis for each major clients
- Inspecting supporting documents by selecting samples of sales transactions during the reporting period
- Sending external confirmations by selecting samples for each customer regarding trade receivables corresponding to revenue recognition
- Verifying the appropriateness of cut-off of revenue recognition according to the transaction agreements and trade conditions by selecting samples of sales transactions which occurred during a certain period before and after end of the reporting period

# Auditor's Report

## Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Korean IFRS, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

## Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Korean Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from

fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Korean Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists

related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is In-Kyoo Park, Certified Public Accountant.

**This report is effective as of February 24, 2025, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.**

# Independent Assurance Statement

To readers of 2024 PI Advanced Materials Sustainability Report

## Introduction

Korea Management Registrar (KMR) was commissioned by PI Advanced Materials to conduct an independent assurance of its Sustainability Report 2024 (the "Report"). The data and its presentation in the Report is the sole responsibility of the management of PI Advanced Materials. KMR's responsibility is to perform an assurance engagement as agreed upon in our agreement with PI Advanced Materials and issue an assurance statement.

## Scope and Standards

PI Advanced Materials described its sustainability performance and activities in the Report. Our Assurance Team carried out an assurance engagement in accordance with the AA1000AS v3 and KMR's assurance standard SRV1000. We are providing a Type 2, moderate level assurance. We evaluated the adherence to the AA1000AP (2018) principles of inclusivity, materiality, responsiveness and impact, and the reliability of the information and data provided using the Global Reporting Initiative (GRI) Index provided below. The opinion expressed in the Assurance Statement has been formed at the materiality of the professional judgment of our Assurance Team.

Confirmation that the Report was prepared in accordance with the GRI standards 2021 included in the scope of the assurance. We have reviewed the topic-specific disclosures of standards which were identified in the materiality assessment process.

- **GRI Sustainability Reporting Standards**
- **Universal Standards**
- **Topic Specific Standards**
  - Management approach of Topic Specific Standards
  - GRI 201-2: Financial implications and other risks and opportunities due to climate change
  - GRI 206: Anti-Competitive Behavior
  - GRI 302: Energy
  - GRI 403: Occupational Health and Safety
  - GRI 404: Training and Education
  - GRI 418: Customer Privacy

As for the reporting boundary, the engagement excludes the data and information of PI Advanced Materials' 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:

- reviewed the overall Report;
- reviewed materiality assessment methodology and the assessment report;
- evaluated sustainability strategies, performance data management system, and processes;
- interviewed people in charge of preparing the Report;
- reviewed the reliability of the Report's performance data and conducted data sampling;
- assessed the reliability of information using independent external sources such as Financial Supervisory Service's DART and public databases.

## Limitations and Recommendations

KMR's assurance engagement is based on the assumption that the data and information provided by PI Advanced Materials to us as part of our review are provided in good faith. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied. To address this, we referred to independent external sources such as DART and National Greenhouse Gas Management System (NGMS) and public databases to challenge the quality and reliability of the information provided.

# Independent Assurance Statement

## Conclusion and Opinion

Based on the document reviews and interviews, we had several discussions with PI Advanced Materials 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 applied the GRI Standards 2021. Nothing comes to our attention to suggest that the Report was not prepared in accordance with the AA1000AP (2018) principles.

### Inclusivity

PI Advanced Materials 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

PI Advanced Materials 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

PI Advanced Materials 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 PI Advanced Materials' actions.

### Impact

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

## Reliability of Specific Sustainability Performance Information

In addition to the adherence to AA1000AP (2018) principles, we have assessed the reliability of economic, environmental, and social performance data related to sustainability performance. 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.

## Competence and Independence

KMR maintains a comprehensive system of quality control including documented policies and procedures in accordance with ISO/IEC 17021-2015 - Requirements for bodies providing audit and certification of management systems. This engagement was carried out by an independent team of sustainability assurance professionals. KMR has no other contract with PI Advanced Materials and did not provide any services to PI Advanced Materials that could compromise the independence of our work.



June 2025 Seoul, Korea  
CEO **E. J. Hwang**

