

# POSCO CORPORATE CITIZENSHIP REPORT 2021





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# About this Report

The 2021 POSCO Corporate Citizenship Report details POSCO’s “Corporate Citizenship” management philosophy for achieving sustainable management and performance across the areas of Business, Society, and People. This report has enhanced the materiality analysis of key issues facing POSCO, and has significantly expanded the scope of opinions gathered by benchmarking relevant domestic and foreign industries and stakeholders. Furthermore, based on global standards compliance, POSCO has transparently included its response strategies for each issue in this report. To transparently disclose the Environmental, Social, and Governance (ESG) information, this report includes the Factbook, which is focused on quantitative data, and the Policybook, which articulates relevant policies. Moving forward, POSCO will continue to transparently disclose and manage the company's mid- to long-term strategies, goals and management status through the Corporate Citizenship Report.

## Cover Story

In line with the vision slogan of “Green Tomorrow, With POSCO,” POSCO has expressed its will to build a sustainable future from the perspective of the overall value chain of steel.

## Reporting Principles

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards. As a member of the UN Global Compact, POSCO will detail all actions taken to achieve the 10 Principles of the Compact in a range of sectors including human rights, labor, environmental protection, anti-corruption and other Sustainable Development Goals (SDGs). Furthermore, this report considers the Sustainability Accounting Standards Board (SASB) industry standards as well as recommendations from the Task Force on Climate-Related Financial Disclosure (TCFD).

## Reporting Period

While this report is POSCO’s first Corporate Citizenship Report following the split-off on March 1, 2022, it highlights key activities and achievements prior to the split-off, from January 1, 2021 to December 31, 2021. Some of the information, such as the growth vision, strategic system and governance structure, include contents from after the split-off. For quantitative performance included in the ESG Factbook, the four-year trend data from 2018 to 2021 are included.

## Reporting Scope

The data provided in this report are based on POSCO’s performance across all domestic worksites, including Pohang Steelworks, Gwangyang Steelworks and both the Pohang headquarters and the Seoul office. The management performance includes the financial performance as of December 31, 2021, before the split-off, and the financial information has been prepared based on the POSCO Holdings’ business report.

## Report Assurance

To assure the credibility of all information contained in this report, POSCO has arranged for third-party certification from Samil PricewaterhouseCoopers, an independent assurance provider, which meets ISAE 3000 requirements.

## Global Initiative

POSCO has been a member of the UN Global Compact since 2012, and complies with ISO 26000, a globally renowned standard for social responsibility. Furthermore, POSCO has been consistently included in the S&P Dow Jones Sustainability World Index since 2003, and also participates in the Carbon Disclosure Project (CDP) to assure the continued improvement of our sustainability performance.

## Report Distribution and Feedback

This report can be downloaded from the official POSCO website. Please direct any stakeholder views and opinions on this publication to the contacts provided below.

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# POSCO CHARTER OF CORPORATE CITIZENSHIP

Companies achieve lasting growth and sustainability by pursuing harmony within the society where businesses operate. As a member of the social community, companies who have benefited from resources provided by the society should look beyond profit, engage in addressing social issues and contribute to the prosperity of mankind and to making the world a better place. We believe that this is the right way to move forward.

POSCO, under its management philosophy of ‘**Corporate Citizenship: Building a Better Future Together,**’ will engage and communicate with all stakeholders including customers, employees and shareholders, and continually seek changes and innovation in pursuit of sustainability by ultimately creating greater value for the company.

Accordingly, POSCO that embraces Corporate Citizenship complies with the following principles when conducting business.

## One. We nurture a robust business ecosystem with business partners.

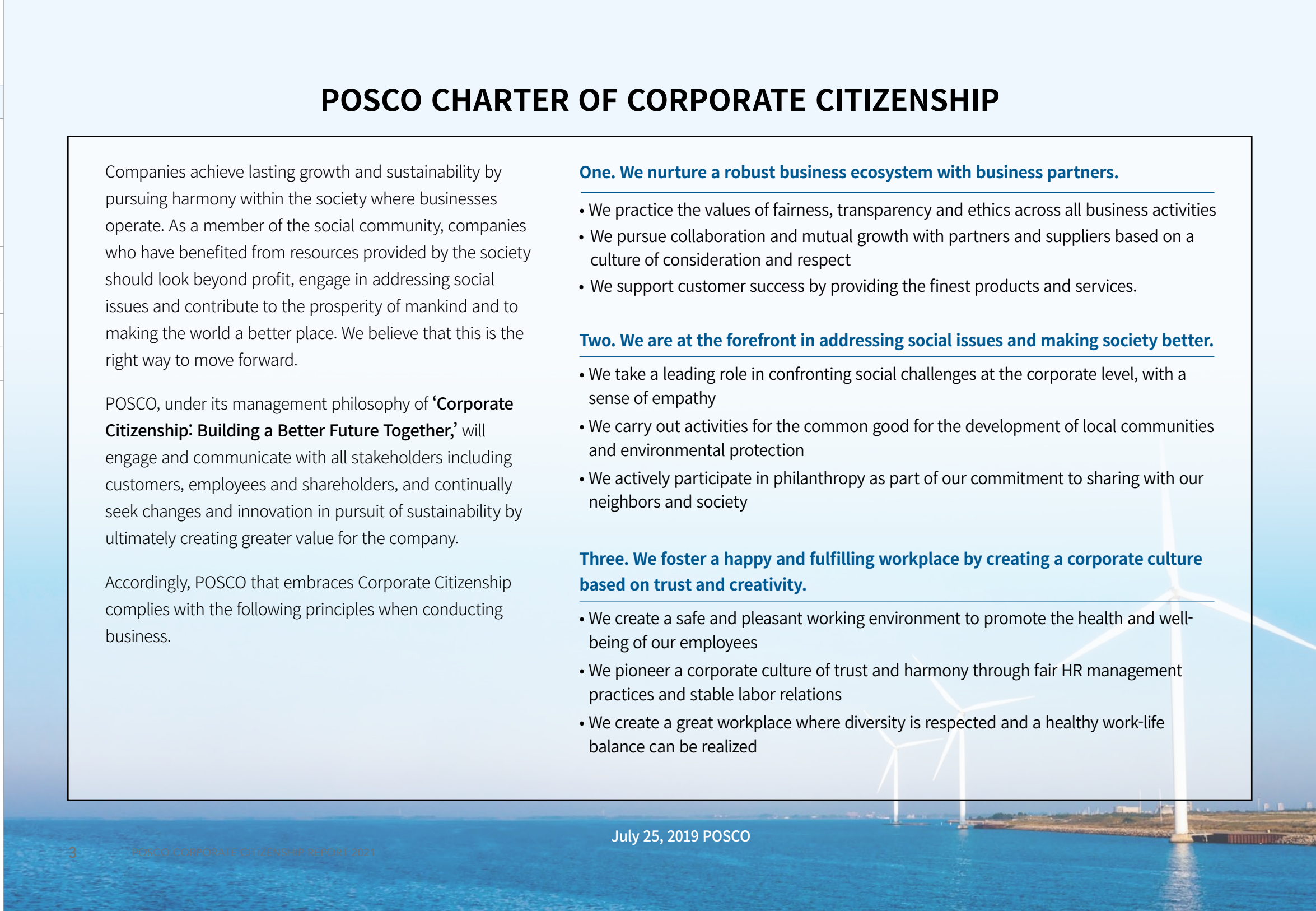
- We practice the values of fairness, transparency and ethics across all business activities
- We pursue collaboration and mutual growth with partners and suppliers based on a culture of consideration and respect
- We support customer success by providing the finest products and services.

## Two. We are at the forefront in addressing social issues and making society better.

- We take a leading role in confronting social challenges at the corporate level, with a sense of empathy
- We carry out activities for the common good for the development of local communities and environmental protection
- We actively participate in philanthropy as part of our commitment to sharing with our neighbors and society

## Three. We foster a happy and fulfilling workplace by creating a corporate culture based on trust and creativity.

- We create a safe and pleasant working environment to promote the health and well-being of our employees
- We pioneer a corporate culture of trust and harmony through fair HR management practices and stable labor relations
- We create a great workplace where diversity is respected and a healthy work-life balance can be realized





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# Company Overview

POSCO is an integrated steel manufacturing company that produces steel products such as hot-rolled, cold-rolled, and stainless steel. POSCO was established on March 1, 2022, through the split-off of all steel-related businesses operated by POSCO Holdings Co., Ltd (formerly known as POSCO Co., Ltd.). We have an annual crude steel production capacity of 45 million tons that includes steelworks in Korea and overseas. We have also been ranked Number One in the list of the “World’s Most Competitive Steel Companies” by World Steel Dynamics (WSD), a world-class steel analytics agency, for 12 consecutive years as of 2021. Furthermore, POSCO was named the “Sustainability Champion” by the World Steel Association in 2022 in recognition of our ESG management-related efforts and performance.

## Company Overview

Name of Company	POSCO
Chief Executives	Vice Chairman, Hag-dong, Kim
Address of Headquarters	6261, Donghaean-ro, Nam-gu, Pohang-si, Gyeongsangbuk-do (Goedong-dong), Republic of Korea
Date Founded	March 2, 2022
Business Information	Ironmaking, steelmaking and production & sales of rolled steel products
Products	Hot-rolled steel, steel plate, wire rod, cold-rolled steel, hot-dip galvanized steel, electroplated steel, electrical steel, stainless steel, titanium, etc.
Corporate Website	www.posco.com

## Vision & Core Values

Management Philosophy

Management Vision

Areas of activity

POSCO Talent

Code of conduct

Core values

Corporate Citizenship:  
Building a Better Future Together

With POSCO

### BUSINESS

Biz partners  
(partners/customers/suppliers)

- Practice of fairness, transparency and ethics
- Shared growth
- Best products and services

### SOCIETY

Social communities and individuals  
(local communities and residents)

- Contributing to addressing social issues with empathy
- Developing local communities and practicing environmental management
- Participating in philanthropy

### PEOPLE

POSCO Group employees

- Creating a safe and pleasant working environment
- Practicing fair HR management and stable labor-management relations
- Embracing diversity and achieving work-life balance

Talent with the mindset of action, consideration and creativity

Substance

Execution

Practical



Safety



Win-win



Ethics



Creativity



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# Directions for ESG of POSCO as a Corporate Citizen & Activities for UN SDGs

Business	Respond to climate change	   	Build smart factories	  
	Improve atmospheric environment	 	Promote lithium business	 
	Promote recycling	 	Expand the sales of new green products	 
	Water management	 	Establish venture platforms	 
Society	Enforce local community sharing activities	   	Preserve biodiversity and ecosystems	 
	Strengthen supply chain management	 	Present role models to resolve low birth rates	 
	Procurement of responsible minerals	  	Support youth employment/startups	 
People	Implement safe workplaces	 	Promote diversity and inclusion	
	Strengthen employee health management	 	Construct win-win labor relations	
	Foster talents and strengthen competences		Develop creative organizational culture	
Fundamentals	Strengthen independence of the board of directors	 	Ethics management	
	Implement transparent tax policy	 	Fair trade	 
	Enforce preemptive risk management		Information security	

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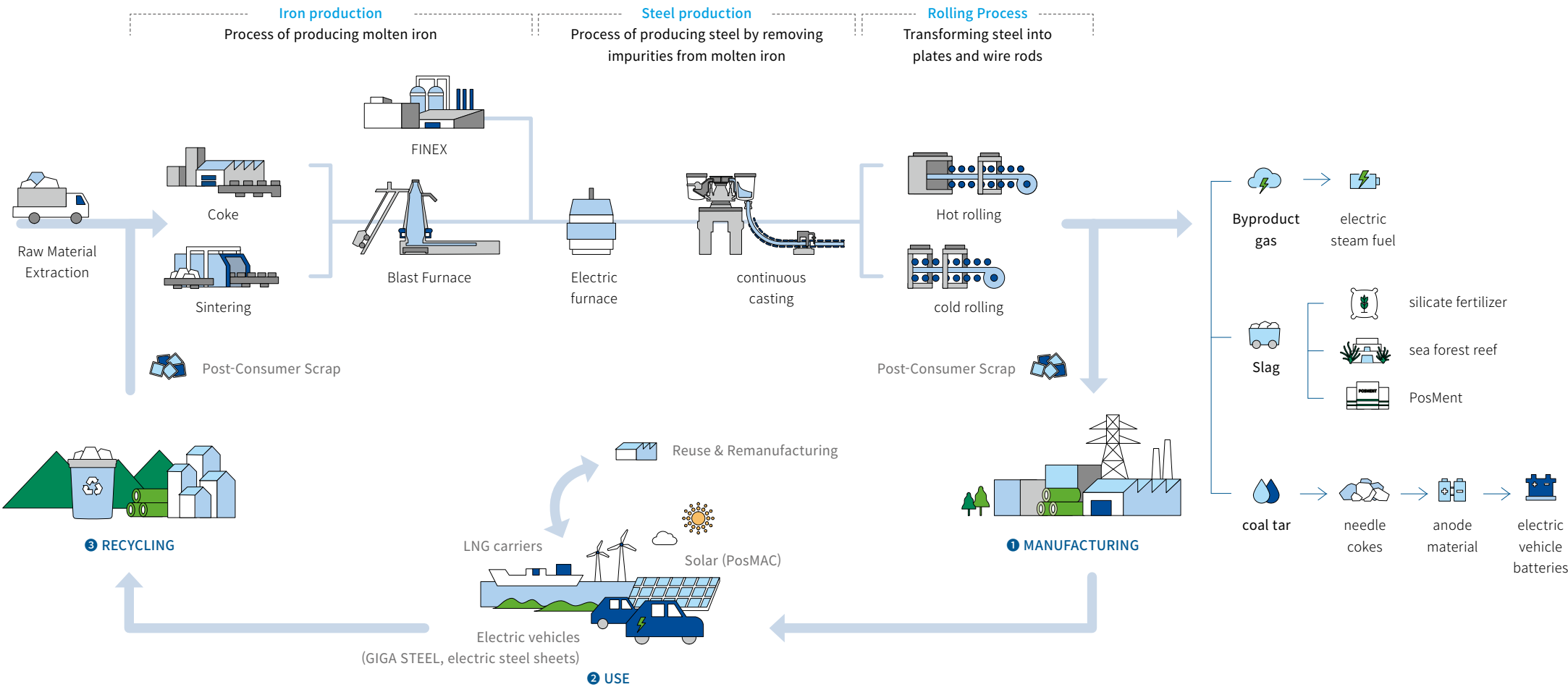
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# Steel Production Process and Life Cycle

Steel products are essential materials that support people’s daily lives and economic activities in the world today. POSCO endeavors to develop lighter, stronger and more durable steel products, through which we are striving to contribute to the sustainable development of cities and communities, the 11th of the UN SDGs. With its excellent recyclability, steel contributes to creating a sustainable circular economy. Once consumed, steel can be recycled indefinitely, recreated as

new products and/or remanufactured. Moreover, the recycling rate of byproducts from the steel production process exceeds 98.6% (at POSCO), thus generating a very small amount of waste. POSCO aims to spearhead the low-carbon circular economy by accelerating the decarbonization of steel production.





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# Message from the POSCO CEO

Dear esteemed stakeholders,  
In March 2022, POSCO took a historic step toward fulfilling a “Sustainable 100 years of POSCO” under the holding company system. As we move into an era of industrial transformation involving a low-carbon circular economy, accelerated stakeholder capitalism, reorganization of the global supply chain and digitalization, it is crucial to establish a more flexible and agile management system.

Steel has been an essential material in the development of humankind, and will continue to play an important role in creating a safe and sustainable society. Today, as we prepare for the post-pandemic era, it is more important than ever for the steel industry to fulfill its social responsibility and manufacture products in a sustainable manner. Our future competitiveness will rely on our efforts in the area of sustainable management (ESG).

Having been honored by the World Steel Dynamics as the world’s most competitive steelmaker for 12 consecutive years, POSCO has maintained its competitiveness based on its excellent productivity and high value-added products for over 50 years. Moving forward, we aim to become a leader in ESG management that creates a sustainable tomorrow with our stakeholders by continuously changing and innovating our technologies and operations based on the Corporate Citizenship management philosophy. To create a business model in which economic and social values circulate in a virtuous cycle, while actively managing ESG performance, I would like to present the following directions for POSCO as, a Corporate Citizen.

First, we will take the lead in building a low-carbon circular economy by achieving carbon neutrality throughout the steelmaking process by 2050. Our experience related to technological development and the know-how that we have accumulated over the past half-century are valuable strategic assets. Based on these assets, we will focus on achieving a significant transition toward a low-carbon steelmaking process. In the medium- and short-term, we will build electric furnaces and expand renewable energy. In the long term, we will complete the development of HyREX, an independent hydrogen-based steelmaking technology. In particular, we are demonstrating our climate leadership by hosting the world’s first hydrogen-reduced steel forum to promote decarbonization throughout the global steel industry ecosystem. The global hydrogen-reduced steel forum is also expected to promote technology exchanges and collaborations across the steel value chain.



“  
As a corporate citizen and a worldsteel  
Sustainability Champion POSCO has pushed forward  
with forward-looking innovations to create a better world  
through carbon neutrality.”

Second, we are creating an operating system that puts workplace safety first. While establishing a process for discovering and improving risk factors in the workplace, we are prioritizing the allocation of investment resources to ensure that there is no potential risk to safety. In particular, as part of our establishment of a smart factory in keeping with the digitalization of the manufacturing industry, we are focused on promoting “Smart Safety,” which supports safety measures involving artificial intelligence and smart wearable devices.

Finally, we are seeking to accelerate innovations in our corporate culture focused on the elements of Soft, Skill, and Smart. The culture we pursue is 1) a “soft” culture for creativity and collaboration, 2) a “skill-based” culture based on the high professional competency of our members, and 3) a “smart acceleration” spanning all areas of our business, from steel production to individual workers. These innovations in our corporate culture will help form a happy workplace for all employees, and will lay the cornerstone for POSCO to become a centennial company.

As a member of the POSCO Group, I will strive to create greater corporate value by realizing POSCO’s ambitious goals and vision of becoming a global business leader that is working toward a sustainable future for humankind. I humbly ask for your continued interest in and support of POSCO’s ongoing innovation and change.

Thank you.

Chief Executive Officer & Vice Chairman, POSCO Hag-dong Kim

# Vision and Strategy for the Steel Business

In 2021, the global economy posted a high growth rate of 5% as the manufacturing and trade sectors recovered quickly following the expansion of the vaccine supply and economic stimulus policies being implemented amidst the ongoing COVID-19 pandemic. The Korean economy has also posted its highest growth in 10 years at approximately 4%, with exports and investments recovering promptly due to an increase in overseas demand despite sluggish consumption in service sectors due to the impact of the pandemic. The global steel market improved promptly thanks to the recovery of the global economy, with steel prices remaining high due to increased demand, production cuts in China and supply disruptions in advanced economies.

With the global steel economy recovering, POSCO has expanded sales of its world top premium (WTP) products, while focusing on clarifying the production process and enhancing its green product portfolio.

In response to growing demand from its major customers in Korea, POSCO has strengthened its market leadership by undertaking sales activities with a focus on domestic demand, and has achieved solid sales results by significantly increasing the proportion of sales of WTP, its high value-added premium product group. The overseas branches have also significantly improved profitability by enhancing sales in line with the soaring global steel market. Notably, among the major branches Indonesia PT-KP and POSCO Assan-TST Turkey have achieved record-high profits and enhanced their financial soundness.

In preparation for the low-carbon society, POSCO has reduced the basic unit of carbon emissions by improving the efficiency of our steelmaking process and focused on making environmental investments to improve air quality. POSCO has also strengthened our internal and external activities to realize carbon neutrality by 2050– for example, by devising a roadmap for technological development of hydrogen-based steelmaking, and by signing MOUs with raw materials suppliers on cooperation for carbon neutrality. Simultaneously, in response to the growing demand for eco-friendly products in the new mobility, solar power, wind power and hydrogen industry, we have strengthened the development of green products and solutions and launched eco-friendly vehicle (e-Autopos) and green energy (Greenable) brands.

Furthermore, POSCO continues to share the corporate citizenship management philosophy with our employees toward the expansion of win-win cooperation with stakeholders, while enhancing our capabilities in order to practice the corporate citizenship management philosophy and fulfill our role of contributing to addressing social issues by upgrading the ESG management system. POSCO has been proactive in practicing the five major brand activities\* of corporate citizenship shared by and among all stakeholders, including partners, suppliers, customers and local communities.

\* Five Brands for Corporate Citizenship: Together/Challenge/Green/Life/Community With POSCO

In connection with putting the corporate citizenship management philosophy into practice, POSCO has laid out the ESG practices framework and established the ESG Committee under the Board of Directors to manage and supervise matters regarding ESG policies and their implementation, while strengthening internal and external communication by publishing the “Corporate Citizenship Report” and the “ESG Factbook,” both of which contain the key ESG-related achievements. Furthermore, to create a safer workplace, labor, management and affiliates have identified potential risks together and improved safety equipment and facilities, while focusing on the prevention of major accidents by implementing six key safety measures, including the absolute enforcement of the right to suspend work. Safety training has also been reinforced for partners and subcontractors to foster a culture of safety activities, and the extent of safety management has been substantially improved by assigning the Safety Environment Officer and Safety Guard.

In 2022, POSCO was reborn as a steel business company after switching to a holding company system in order to focus on the steel industry and create a “Sustainable POSCO as a centennial company.” We will do our best to maintain the competitiveness that we have built up for decades through faster decision-making, thorough business management, and strengthening of the company's capabilities in the steel industry. Furthermore, to achieve a “Sustainable POSCO as a centennial company,” we will focus all our competencies on achieving the following objectives.



First, we will achieve a great transition to a low-carbon, eco-friendly steelmaking process.

To achieve carbon neutrality by 2050, eco-friendly technology and operational competitiveness are required. To respond flexibly to the market and to customers' high demand for low-carbon products, POSCO will expand the use of renewable energies and build new electric Arc furnaces, while accelerating the development of hydrogen-based steelmaking technology. Simultaneously, we will prepare a low-carbon operations system without any setbacks by proactively securing the necessary iron sources such as scrap and HBIs. Furthermore, starting this year, we will start fully sealing our raw materials yards to ensure air quality for local residents. We will also install dust collection equipment across all dust generating facilities to realize a eco-friendly steelworks system.

Second, we will create the world's best “Smart steelworks.”

POSCO will transform itself into a cutting-edge, highly advanced steelworks system that can control all steelmaking processes along with the automation of manual work. We will improve productivity and reduce error rates by building a high-efficiency Smart process and reduce energy costs by investing in facilities to improve our power generation efficiency and increase gas recovery. In the long run, we will create a Smart steelworks by completing the Digital Twin Steelworks, capable of executing autonomous and flexible production by hyper-connecting the company-wide supply chain.

Third, we will be renewed as a steel company equipped with “world-class product competitiveness.”

POSCO will further strengthen profitability by selling high value-added products that effectively support our customers' transition to our green brands, such as INNOVILT, e-Autopos and Greenable. We will reduce costs by diversifying our supply chain for the sourcing of products from single countries, prepare to safeguard against global procurement risks, and enhance our purchasing competitiveness via innovative material procurement methods such as the expansion of the JIT purchasing system. In terms of overseas business, we will expand investment in upstream and downstream processes in cooperation with strategic partners in key markets including Indonesia, India, and the United States, in order to overcome the global wave of protectionism and strengthen our leadership in the global market.

Fourth, we will continue to innovate our corporate culture to become a POSCO that represents creativity and trust.

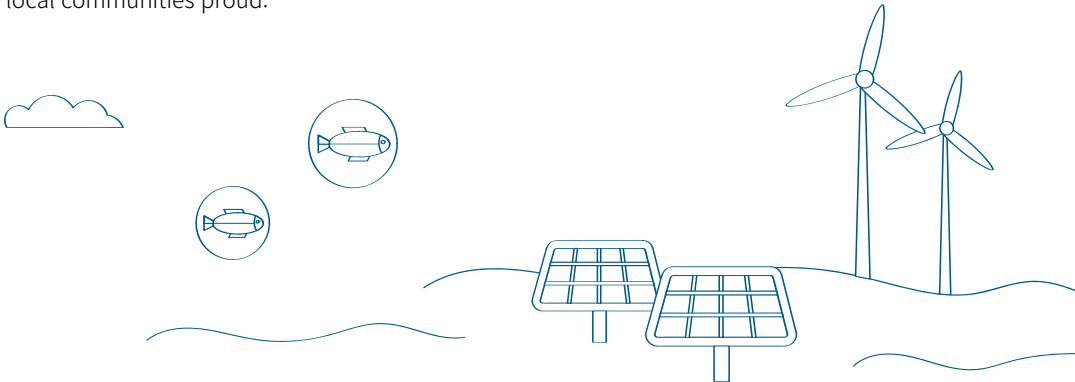
To navigate through uncertain and changing times, it is necessary for POSCO to break away from the rigid organizational culture that stems from our typical heavy industry characteristics and build

a “3S” corporate culture focused on “Soft, Skill, and Smart.” We will build a flexible and active “Soft” corporate culture, foster talent with job-related "Skills” to respond creatively to market changes, and promote the "Smartization” of field and office work based on digital technologies. Breaking away from the inertia of the past, we will rethink all tasks from a zero-base perspective, break inter-organizational silos from the perspective of company-wide optimization, and change into a culture that creates results based on creativity and collaboration. Based on such innovation of the corporate culture, we will make POSCO’s workplaces a happy place for everyone and establish the Corporate Citizenship management philosophy as our cultural identity, laying the foundation to become a centennial company.

Fifth, we will establish ESG management based on Corporate Citizenship and create a safe workplace through co-prosperity with our stakeholders.

POSCO will improve the treatment of outsourcing partners by creating a “joint labor welfare fund” and by further expanding the “benefit sharing” system with small and medium-sized suppliers to create a workplace of co-prosperity and sharing, while contributing to building a robust industrial ecosystem. In addition, we will establish a process for all employees to identify and address on-site risk factors, working from the perspective that “all disasters can be prevented.” Simultaneously, we will enhance our health and safety system by providing the same quality and level of safety training to all employees regardless of whether they work with POSCO, outsourcing partners or subcontractors.

For the new management system to be successfully adopted, as a holding company, POSCO must become a strong support as a core industry. To this end, based on the Corporate Citizenship management philosophy, all POSCO employees will strive seamlessly to build a company that our partners want to do business with, a company where employees want to work, and a company that makes local communities proud.



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## Governance

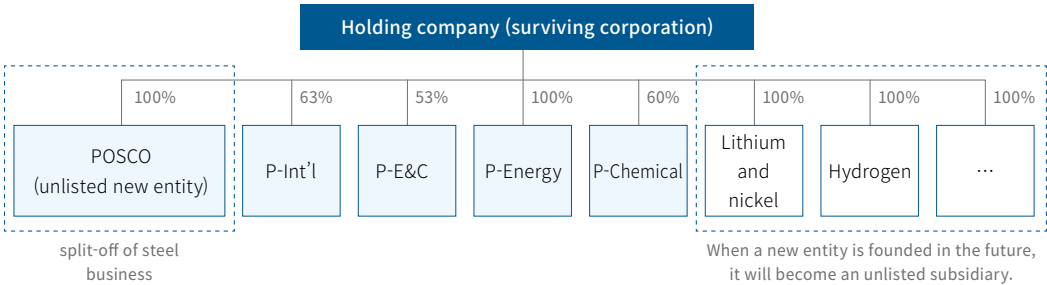
### Advancement of Governance via Transformation into a Holding Company

POSCO has sought various ways to achieve sustainable growth and enhance corporate value in a rapidly changing business environment considering factors such as the transition into a low-carbon and green era, accelerated technological innovation and enhanced ESG management. To achieve these most successfully and efficiently, we have shifted to a holding company system. As the management methods of the past could not guarantee sustainability and new management changes were needed more than ever, “POSCO Holdings,” a holding company within POSCO’s holding company system, remained a listed company and split-off the steel business into “POSCO”.

“POSCO” will focus on enhancing competitiveness in the steel business and lead R&D for low-carbon production technology for a transition into an eco-friendly production system, for example, by completing carbon capture use and storage (CCUS) technology and hydrogen-based steelmaking technology. To maintain the competitiveness that POSCO has built over decades in the steel industry, faster decision-making and precise management are needed. We will thus focus all our capabilities on the steel business to further strengthen our business execution power.

“POSCO Holdings” has selected steel, secondary battery materials, lithium · nickel, hydrogen, energy, building · infrastructure and food as the Group’s core businesses. POSCO Holdings will build a balanced growth system for the Group by strengthening the competitiveness of each business, creating synergies, and identifying and fostering new businesses.

To prevent damage to existing shareholder value, POSCO will keep its subsidiaries unlisted, ultimately developing an advanced corporate governance model in which the value of unlisted subsidiaries is directly linked to the value of the holding company’s shareholders.



## Governance of Transparency

### Structure of the Board of Directors

After the transition to the holding company system, POSCO appoints outside directors in accordance with Article 26 (number of directors) of the POSCO Articles of Incorporation to establish an advanced governance structure even though it is an unlisted company. At the inaugural general meeting held on March 2, 2022, the following executive directors were appointed: Hag-dong Kim (Vice Chairman), Tak Jeong (Head of Marketing Division), Si-woo Lee (Head of Steel Production & Technology Division), Ji-yong Kim (Safety Health Environment(SHE) Division), and Duk-il Yoon (Head of Corporate Planning & Finance Division). In addition, the following non-executive directors were appointed: Jae-hwan Park (Professor at Chung-Ang University) and Min-ho Lee (Former Professor at Kyung-Hee University). Jung-son Chon, Head of Management Strategy Team at POSCO Holdings, was appointed as another non-executive director. At the Board of Directors meeting following the inaugural general meeting, Vice Chairman Hag-dong Kim was appointed as Chairman of the Board of Directors.

Currently, the Board of Directors consists of eight members, including five executive directors, two non-executive directors, and one other non-executive director.

Classification	Name	Field of expertise	Key experience	Term of office
Executive Directors	Hag-dong Kim	Technology, Industry	Vice Chairman and CEO of POSCO Former Head of POSCO Steel Division ※ Metallurgy, Seoul National University; Materials Science (Master's), Carnegie Mellon University	March 2022 - March 2023
	Tak Jeong	Marketing, Trade	President and CEO of POSCO(Head of Marketing Division) Former Head of Steel Business Division (Vice President) ※ Department of Arabic Languages, Hankuk University of Foreign Studies	March 2022 - March 2023
	Si-woo Lee	Technology, Occupational Safety	Head of Production Technology Division (Vice President) Former Safety Environment Officer (Vice President) ※ Metallurgy, Hanyang University; Economics (Master's), Pohang University of Science and Technology	March 2022 - March 2023
	Ji-yong Kim	Safety, Technology, Industry	Safety Environment Officer (Vice President) Former Head of Gwangyang Steelworks (Vice President) ※ Metallurgy, Seoul National University; Physical Metallurgy (Ph.D.), University of Utah	March 2022 - March 2023
	Duk-il Yoon	Finance, Accounting, Policy	Head of Corporate Planning & Finance Division (Vice President) Former Head of Management Planning Headquarters, POSCO E&C (Senior Executive Director) ※ Accounting, Pusan National University; Business Administration (Master's), Ulster University	March 2022 - March 2023
Non-Executive Directors	Jae-hwan Park	Finance, Accounting	Professor, School of Business Administration, Chung-Ang University Former non-standing member of Securities and Futures Committee, Financial Services Commission ※ Business Administration (Bachelor/Master's/Ph.D.), Korea University	March 2022 - March 2025
	Min-ho Lee	Environment	Former Professor, Department of Environment, Kyung Hee University Former Head of Environmental Policy Office, Ministry of Environment ※ Geology, Seoul National University; Department of Civil and Environmental Engineering (Ph.D.), University of Delaware	March 2022 - March 2025
Other Non-Executive Directors	Jung-son Chon	Finance, Accounting, Policy	President, POSCO Holdings (Head of Management Strategy Team) Former Head of POSCO Management Structure Advancement TF Team Management Strategy Team (President) ※ Law, Korea University	March 2022 - March 2023

### Independence of the Board

Although POSCO is an unlisted company, non-executive directors have been appointed to enable an advanced corporate governance structure. Furthermore, to enhance the independence of the Board of Directors, all special committees operating under the Board of Directors are chaired by non-executive directors.

### Diversity and Professionalism of the Board

POSCO’s non-executive directors are individuals with rich experience and expertise spanning various fields including industry, finance, academia, law, accounting and public services, helping to ensure that they can support the rational decision-making practices of management without a bias toward a specific field.

### Evaluation of the Board

POSCO’s Board of Directors plans to conduct an annual self-evaluation and prepare a report on the evaluation results to identify areas for improvement regarding the Board’s function and to enhance external credibility.

In terms of the evaluation method, all directors will quantitatively and qualitatively assess the Board and the special committees to which they individually belong, and plan to evaluate the overall extent of related systems and operations such as the role, structure and operation of the Board. The evaluation results will be used for operational improvement via reporting to and consultation with the Board of Directors.

### Remuneration Policy for the Board

Directors are compensated within limits approved at the general shareholders meeting and in accordance with Article 388 of the Commercial Act and Articles of Incorporation. The CEO is paid an annual base salary plus incentives calculated according to standards set by the Board. The incentives consist of a short-term incentive, which is dependent on the company’s fiscal year results (i.e., operating profit, EPS, operating cash flow, and sales) as well as a long-term incentive, which is calculated based on the results of a long-term assessment (i.e., share price, ROA, Debt/EBITDA ratio, etc.) carried out on the business performance of the three previous years.

### Structure of Special Committees

POSCO operates two special committees (ESG Committee and Audit Committee) under the Board of Directors. The two special committees are chaired by non-executive directors.

#### Committees within the Board of Directors

ESG Committee	Audit Committee
Chairperson: Min-ho Lee	Chairperson: Jae-hwan Park
Jae-hwan Park, Non-Executive Director Ji-yong Kim, Executive Director Duk-il Yoon, Executive Director	Min-ho Lee, Non-Executive Director Si-woo Lee, Executive Director
Review of environmental and low-carbon policies Preliminary review of safety and health plan Monitoring of ESG-related implementation	Inspection of directors’ performance Audit of internal accounting

#### Qualifications of Directors

##### (Corporate Governance Charter 3-3: Qualifications of Directors)

- Directors shall possess an exemplary set of ethics, business sense, and integrity and the ability to enhance long-term value for all shareholders and fairly represent the interests of all stakeholders.
- Executive directors, as high-level managers of the corporation, shall have a wealth of experience and expertise related to the company’s business, and shall be capable of making managerial decisions in a reasonable and appropriate manner.
- Non-executive directors shall have a wealth of expertise and experience in a related field such as finance, economics, management, law, accounting or the public sector, shall hold no material relationship with the company, and shall be able to make decisions independently from the company and its shareholders.

#### Director's Responsibilities

##### (Corporate Governance Charter 3-5: Responsibilities of Directors)

- Directors shall strive to perform their duties with prudence and faithfulness in the best interests of the company and its shareholders. Directors shall not divulge or use any information obtained in the course of executing their role for their own or any third party’s benefit.
- Directors, as members of the company, shall abide by POSCO’s Code of Ethics and the Code of Ethics for Non-Executive Directors. The Board oversees the ratification of the behavioral procedures stated in the Code of Ethics.
- If a director violates the law or the Articles of Incorporation, or neglects his/her duties, he/she shall be held liable for damages to the company or a third party. However, managerial decisions by a director that are based on good faith and rational judgement shall be respected.
- To mitigate directors’ liability and to attract competent directors, the company shall purchase liability insurance coverage for the directors.
- A director shall resign if a conflict of interest between POSCO and such director arises. The director shall not engage in discussions or decision-making processes that may affect his/her personal or business interests.

**Corporate Citizenship Advisory Council**

POSCO’s Corporate Citizenship Advisory Council, which is under the direct control of the Group’s CEO, was founded in March 2019. Until 2020, it was referred to as the Corporate Citizenship Committee, but in consideration of recent changes in the business environment, it was expanded through the addition of experts in safety, environment, and organization. The council reviews and provides strategic consultation on matters such as corporate citizenship performance, occupational health and safety issues and overall ESG management.

The Corporate Citizenship Advisory Council meets quarterly and fulfills a range of roles such as consulting on corporate citizenship management strategies, brand expansion and changes in ESG trends, reviewing corporate citizenship performance, and responding to and preventing occupational health and safety issues. Since its inception in 2019, the council has contributed to establishing a strategic direction for the systematic internalization of the corporate citizenship management philosophy. It also played a big role in making the philosophy part of POSCO’s unique culture by providing strategic advice on matters such as the enactment of the Charter of Corporate Citizenship. Members of the council regularly discuss ways to promote the company via ESG trends by inviting outside experts to hear their opinions or carrying out debates on recent sustainable global business trends, including the UN’s SDGs.

Based on such discussions, not only did POSCO systematically respond to ESG demands, but it also established a system that enables the company to effectively communicate with the public about its corporate citizenship-related activities from an ESG perspective. In 2020, the council emphasized that various support activities are needed to encourage employees to voluntarily practice corporate citizenship actions across the POSCO Group. As part of this effort, the council offered strategy consultations on enacting CCMS (Corporate Citizenship Management Standards).

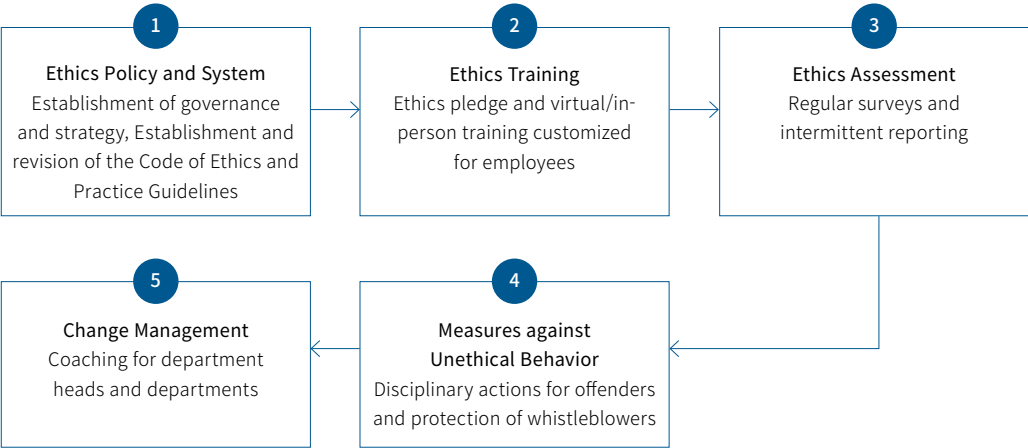
If the POSCO Charter of Corporate Citizenship is a compass that shows the direction toward the destination of corporate citizenship, the CCMS are a map that will lead the Group to specific goals. The CCMS are a guide to practicing corporate citizenship, which categorizes the company’s operations into 13 modules including strategy, finance, production, marketing, purchasing and R&D, and presents best practice cases for each module. The enactment and proclamation of CCMS is meaningful in that it offers a set of standards for management and employees to follow when practicing corporate citizenship so they can produce actual results. The council contributes to POSCO’s ESG management by providing strategic consultation on the standardization of ESG disclosures such as TCFD and SASB and directions for carbon neutrality. In 2022, the council will also cooperate closely concerning ESG issues with the ESG Committee under the POSCO Holdings’ Board of Directors and an in-company ESG council chaired by the Group’s CEO.

# Ethics Management and Fair Trade

## Ethics Management

### Process for Ethics Management

POSCO uses the following processes to practice ethics management throughout the tasks and daily lives of all employees. We integrate ethical practices into our daily lives by detecting and preventing unethical activities.



### Strategy for Ethics Management

“Doing the right thing the right way” is the core message of POSCO’s ethics management philosophy. This means that POSCO performs necessary and meaningful work in a fair and transparent manner, in terms of substance, execution, and practicality. For ethics management to take root as part of POSCO’s corporate culture, POSCO aims to grow one step further by setting an operational goal of preventing unethical behaviors and promoting a corporate culture of respect for humanity.

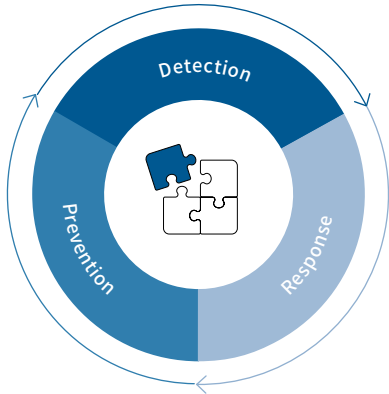
### Governance

The Corporate Audit Office under the direct control of the CEO, is responsible for ethics management at POSCO. The Business Ethics Risk Management Bureau of the Corporate Audit Office provides support for the establishment and implementation of policies on ethics management for the Group’s companies in Korea, overseas entities and business partners, carries out ethical training and campaigns for various occupational groups and classes, conducts audits when violations of human dignity are reported, and establishes networks at home and abroad, all while overseeing the activities of ethics management practices at the Group level. In 2021, POSCO established a Safety & Environment Audit Group to perform preemptive checks and prevent safety and environmental risks. Significant ethics management issues are reported to the CEO and senior management, and the ethics management performance results are reported biannually to the Audit Committee within the Board of Directors.

### Main Roles and Tasks of the Dedicated Organization

#### Ethics guidelines system, training and value of mutual benefit

- Expansion of ethics management to include business partners
- Enactment and revision of the Code of Ethics and relevant guidelines
- Operation and improvement of ethics management system
- Roll-out of ethics training and campaigns for employees



#### Reporting, Ethics Sessions and Monitoring

- Operation of reporting center for abuse of power, bullying and sexual harassment

- Ethics sessions for executives, department heads, section heads and overseas subsidiaries, and customized feedback
- Continuous monitoring of high-risk departments

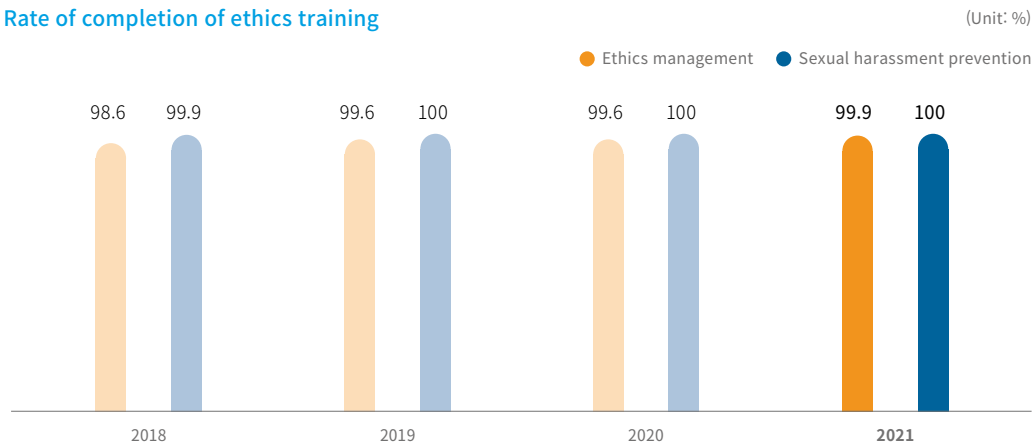
#### Audit of Unethical Conduct



- Audits of four major unethical conduct types: Bribery, embezzlement, sexual harassment and information manipulation
- \* A zero-tolerance policy applies to these four types of conduct.
- Audits of violations of human dignity: Sexual harassment, bullying and abuse of power
- Monitoring and auditing of special interest cases
- Audits of other business practices

### Ethics Training

Every January, POSCO’s employees make an online pledge to comply with the Code of Ethics. POSCO also runs online and in-person training programs for employees across all domestic and overseas worksites. In 2021, the company expanded its virtual training platform using a video conferencing system.

### Rate of completion of ethics training



<b>Online</b>  	<ul style="list-style-type: none"> <li>• Mandatory e-learning courses (ethics management / prevention of sexual harassment)</li> <li>• Sharing of ethics management campaigns with Group companies via the GIH (Global Information Hub) system (prevention of unethical conduct, bullying, sexual harassment, abuse of power, etc.)</li> <li>• Distribution of Integrity Management Letter for ethics management campaign (prevention of unethical conduct, bullying, sexual harassment, abuse of power, etc.)</li> <li>• E-mail training via distribution of ethics management lesson plans (Received by department heads to prevent unethical conduct; dissemination of training within departments)</li> </ul>	
	<b>Offline</b>  	<div> <b>In-Person</b> <ul style="list-style-type: none"> <li>• Introductory training for new employees in clerical and production positions</li> <li>• POSCO training for experienced employees</li> <li>• Specialized training for each department</li> <li>• ESG reinforcement training to secure supplier competitiveness</li> <li>• Ethics training for Group companies</li> </ul> </div> <div> <b>Contactless</b> <ul style="list-style-type: none"> <li>• POSCO Steel Bridge Internship Program</li> <li>• Training for new section heads and chiefs</li> <li>• Training for POSCO interns</li> <li>• Training before dispatching new expatriates to overseas branches</li> <li>• Ethics and human rights training for overseas branches</li> </ul> </div>



## Ethics Reporting Center

POSCO operates an Ethics Reporting Center, which both employees can use to report unethical behavior at any time. Any party concerned, within and outside the company, may file a report on unethical behavior, abuse of power, workplace bullying, or sexual harassment. POSCO strives to create a transparent corporate culture by documenting and managing all cases of inappropriate solicitation on the Clean POSCO System. Any executive or employee who is approached in an inappropriate manner must report the situation on the Clean POSCO System truthfully and without omission. Anyone who fails to register a case of inappropriate solicitation will face disciplinary measures.



### Reporting of Unethical Conduct

Reporting of accepting posts by POSCO employees as a matter of corruption



### Reporting of Workplace Harassment and Sexual Harassment

Reporting of bullying or sexual harassment at work



### Reporting of Abuse of Power

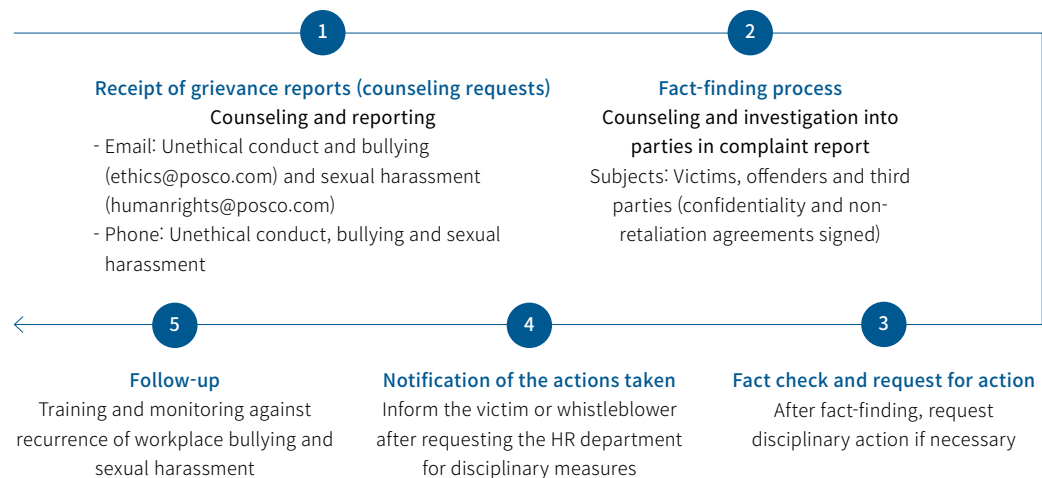
Reporting of verbal abuse and assault by employees of POSCO Group companies



### Counseling on Ethics Management for Partners

Ethics management communication channel for POSCO's business partners

## Grievance Handling Process

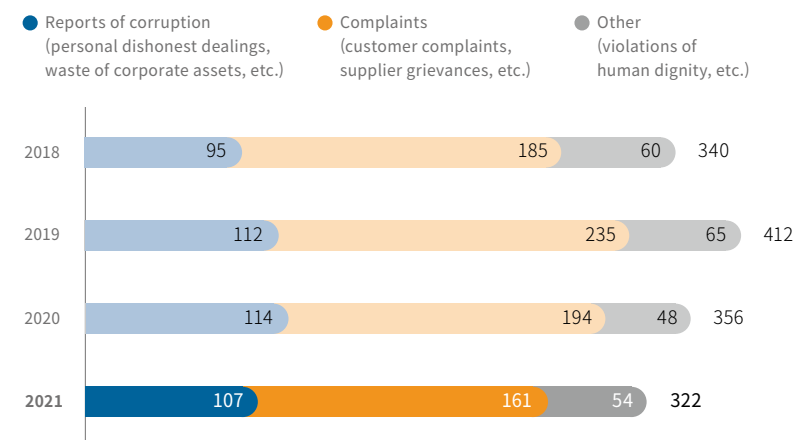


## Actions Taken Against Unethical Practices

POSCO has a zero-tolerance policy called the “One Strike Out Rule” regarding the four major unethical acts of bribery, embezzlement, violation of sexual ethics and information manipulation, and ensures that all ethics violations are subject to appropriate punishment. POSCO prohibits any and all acts which may reveal the identity of a whistleblower, and facilitates a system for the punishment of any violations. Employees of the Integrity Management Office strive to protect the identity of reporters by filling out the “electronic pledge to protect reporter identity” at the beginning of each year.

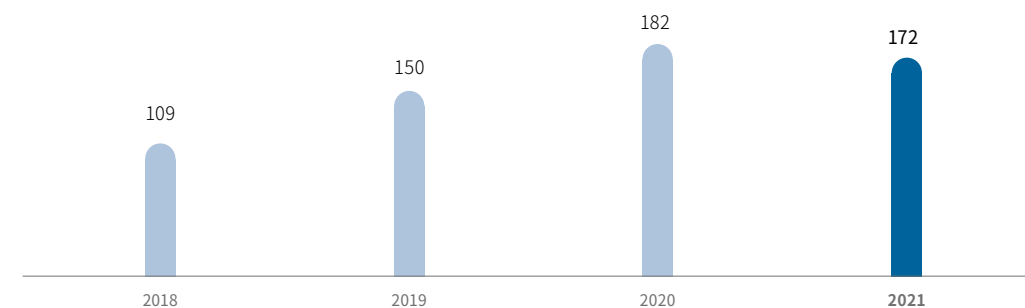
## Status of reports filed at Ethics Reporting Center

(Unit: number of cases)



## Status of counseling for unethical conduct and sexual harassment

(Unit: number of cases)







# Fair Trade

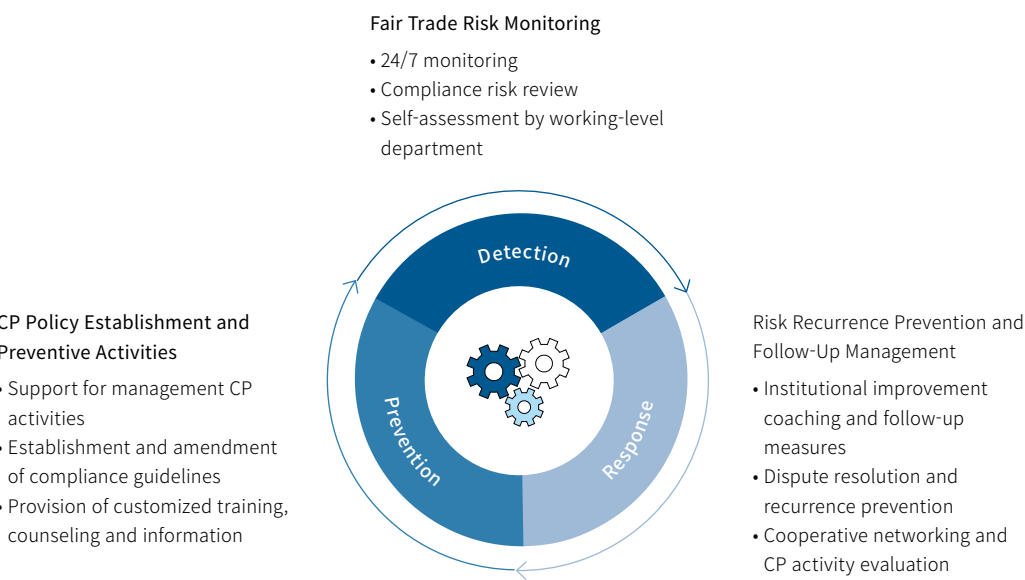
## Organization overseeing fair trade compliance

The Legal Affairs Office is in charge of ensuring that POSCO complies with fair trade practices. The office provides employees with fair trade training and consultation and performs regular reviews.

## Fair trade risk management

POSCO prevents risks and fosters a fair and transparent corporate culture through its Fair Trade Compliance Program (CP).

## POSCO CP Management System



## Fair Trade Compliance Program (CP)

POSCO's Fair Trade Compliance Program is an internal compliance system established and operated independently in accordance with the "Fair Trade Compliance Operational Guidelines." It provides necessary training and performs regular inspections with the goal of preventing any violation of fair-trade regulations. The program includes a Fair Trade Compliance Council and is based on the eight core elements recommended by the Korea Fair Trade Commission (KFTC). A total of 20 POSCO Group companies are currently running such compliance programs, with all of them working to broaden the practice of fair-trade compliance through the POSCO Compliance Academy.

## CP Operational Status (8 Core Elements + Compliance Council)

<b>1. Establishment and implementation of the CP standards and procedures</b> <ul style="list-style-type: none"> <li>- Enactment of "Fair Trade Compliance Program Operational Guidelines" (August 2002)</li> <li>- Enactment of "Guidelines for Corporate Groups and Disclosures" (March 2018)</li> <li>- Enactment of "Fair Trade Compliance Guidelines for Overseas Branches" (December 2019)</li> </ul>	<b>6. Establishment of an internal monitoring system</b> <ul style="list-style-type: none"> <li>- Reporting of CP performance and plans to the board of directors</li> <li>- Operation of internal and external fair trade counseling and reporting centers</li> <li>- Provision of consultation on and status reviews of vulnerable areas</li> </ul>
<b>2. CEO's commitment to compliance</b> <ul style="list-style-type: none"> <li>- Expression of commitment to fair trade compliance through CEO's message</li> <li>- Reception of annual fair trade compliance pledges</li> </ul>	<b>7. Disciplinary measures against offenders</b> <ul style="list-style-type: none"> <li>- Adoption of punishment standards according to the verification of illegal acts</li> <li>- Prompt enforcement of disciplinary actions against offenders</li> </ul>
<b>3. Appointment of Compliance Officers</b> <ul style="list-style-type: none"> <li>- Appointment of fair trade officers based on the decisions of the board of directors</li> </ul>	<b>8. Effectiveness evaluation and improvement measures</b> <ul style="list-style-type: none"> <li>- 2006-2012, 2021: Acquired AA in CP rating evaluation by Fair Trade Commission</li> <li>- 2012-2015, 2017, 2019, 2020: Acquired highest rating in Win-Win Growth Index evaluation</li> </ul>
<b>4. Development and use of compliance manuals</b> <ul style="list-style-type: none"> <li>- Regular distribution of fair trade compliance manuals for each sector (marketing, purchasing, large corporation assessment)</li> </ul>	<b>9. Operation of the Compliance Council</b> <ul style="list-style-type: none"> <li>- Establishment of Compliance Council comprised of heads of departments related to fair trade (marketing, procurement, etc.)</li> </ul>
<b>5. Implementation of continuous and systematic training</b> <ul style="list-style-type: none"> <li>- Provision of regular training on fair trade for working-level departments (procurement, sales)</li> <li>- Implementation of hierarchy-based training on fair trade (new employees, managers, etc.)</li> <li>- Operation of e-learning programs (Fair Trade Basics, Fair Trade Violations Case Studies)</li> </ul>	



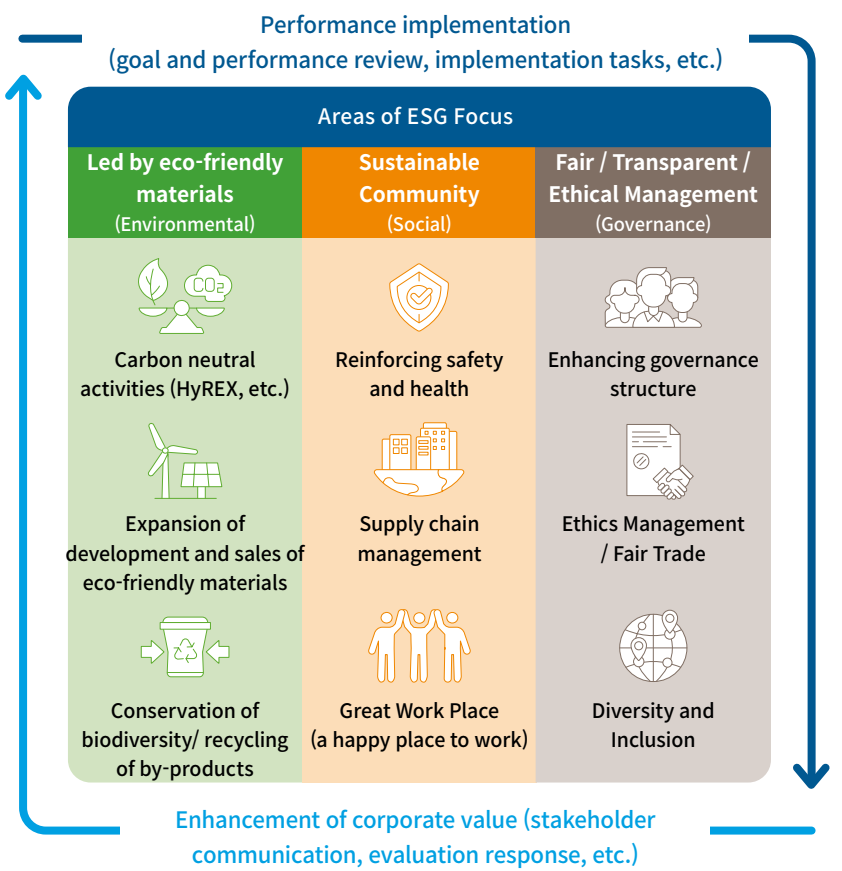
# Corporate Citizenship Management Philosophy & ESG Framework



## What does ESG management mean for POSCO?

Under the corporate citizenship management philosophy, ESG means that POSCO creates greater social value and achieves sustainable growth by demonstrating green leadership, contributing to the creation of a sustainable social community, and practicing fair and transparent ethics management.

### ESG Management Practice Framework





Introduction

Overview

Message from the POSCO CEO

Vision and Strategy of the Steel Business

Governance

Responsible Management,  
Integrity Management, Fair Trade

**Corporate Citizenship Management  
Philosophy & ESG Framework**

Materiality Assessment &  
Stakeholder Interview

[Special I] Five Brands for Corporate Citizenship

[Special II] Green Reporting and Measurement  
of Corporate Citizenship Value

[Special III] Preparing for the Future

Performance

ESG Factbook

ESG Policies & Positions

**POSCO  
CORPORATE CITIZENSHIP  
REPORT 2021**



## The Corporate Citizenship Management Philosophy System & the ESG Practices Framework

### Standards for the Ideals of Members of Corporate Citizen POSCO & Their Actions

POSCO embraces a management philosophy of "Corporate Citizenship: Building a Better Future Together." A corporate citizen is one that fulfills its responsibility of supporting coexistence and co-prosperity for social development by acting with the character of a regular modern citizen. A corporate citizen's goal is to create a business model that achieves and facilitates the virtuous cycle of economic and social value creation by actively participating in business beyond profit-making that seeks to address the problems faced by our society. POSCO has established "With POSCO" as a vision for this corporate citizenship management philosophy, embodying its commitment to growing together while communicating and empathizing not only with its shareholders, but with all stakeholders including customers, employees and society.

As a corporate citizen, POSCO promises to take a step closer to various stakeholders in the country and local communities with empathy, consideration and co-prosperity. As a corporate citizen, POSCO defines all business areas of the company under three areas of Business, Society and People. We will create value with our partners (Business With POSCO), build a better society together (Society With POSCO) and foster a culture of trust and creativity (People With POSCO).

The POSCO Charter of Corporate Citizenship articulates the directions and values that POSCO pursues as a corporate citizen and provides specific principles for each of the B/S/P areas to realize the management philosophy. These principles reflect key ESG factors such as harmony with society, shared growth, fair transparency, environmental protection, safety, and diversity and inclusion. That is, if the principles of the Charter of Corporate Citizenship are implemented properly, a virtuous cycle will already be in place, which naturally leads to excellent ESG performance.

### ESG Approach

Corporate citizenship is the starting point for ESG management as POSCO's management philosophy and cultural identity. For POSCO, ESG may be considered as a means of and an activity for realizing corporate citizenship. To embody ESG management and systematically manage its performance, POSCO has created the ESG practice framework. By establishing important areas of activities for each area of ESG, we are building a company-wide consensus on ESG management and enhancing the understanding of our employees, thereby internalizing ESG management.

Furthermore, based on the ESG practice framework, POSCO is improving its practices and management system to enhance ESG performance. POSCO runs an ESG Committee, a special committee operating under the Board of Directors, and regularly reviews goals and performance on key ESG issues through major consultative bodies including the Carbon Neutrality Committee. From 2022 onwards, all executives are required to develop and implement tasks related to ESG practices, broadly enhancing the ESG management practices of the company.

POSCO seeks to strengthen the confidence of our stakeholders by transparently disclosing its performance and management system. We disclose the relevant information in compliance with major global ESG disclosure guidelines including the TCFD and SASB, and endeavor to communicate with stakeholders after measuring the integrated corporate value in consideration of ESG performance in line with global trends in non-financial value assessment.

*Management Philosophy  
ESG Practice Framework*

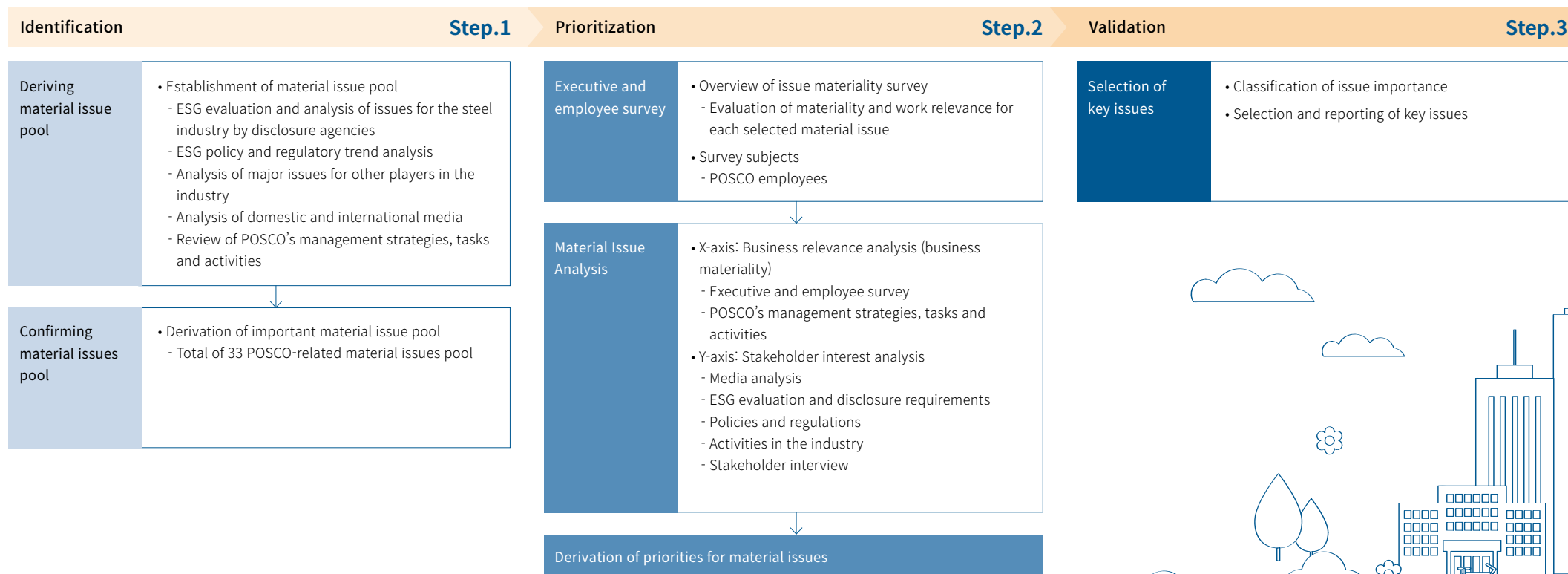
# Materiality Assessment & Stakeholder Interview

POSCO conducts a materiality assessment every year. We identify and manage relevant issues from the perspective of future trends, business risks and opportunities of the steel industry.

In 2021, POSCO applied the materiality principle and the double materiality concept of the Global Reporting Initiative (GRI) Standards. It emphasizes that external environmental and social factors that affect a company's financial position should be considered as well as the external influence

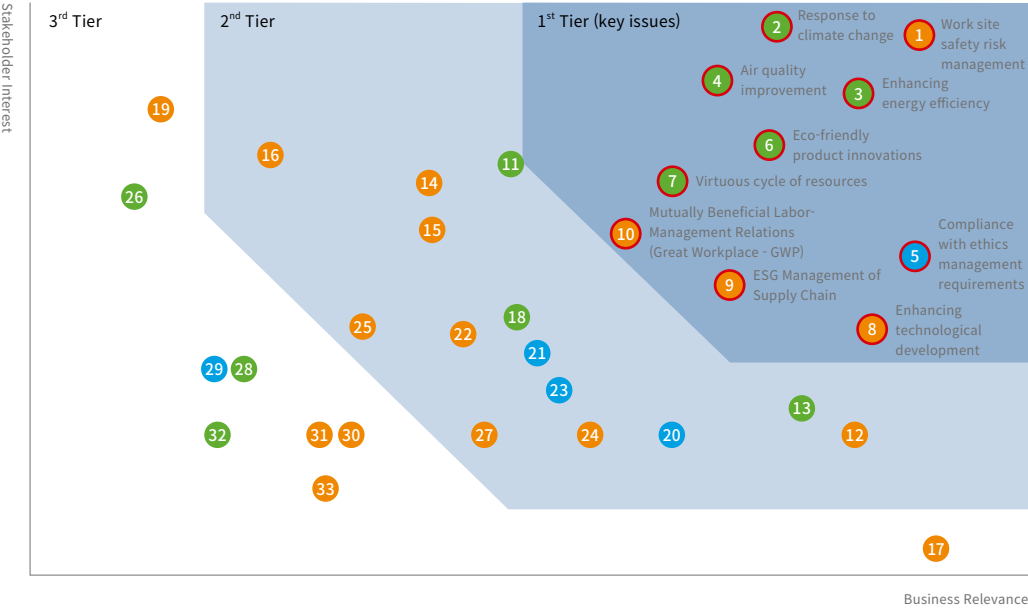
a company can have. Accordingly, to better understand the demands of internal and external stakeholders, POSCO collected and reviewed the ESG management issues of each department from a company-wide perspective and analyzed the external business environment, including domestic and overseas ESG regulations, policies and initiatives.

## Materiality Assessment Process





Matrix for ESG Key Issue Identification













Materiality Assessment Outcomes



Key issues	Global Disclosure Frameworks and Initiatives				
	GRI	SASB	TCFD	WEF	SDGs
1 Work site safety risk management	GRI 403 (2018)	EM-IS-320a.1		Health and well-being	SDGs 3
2 Response to climate change	GRI 201 (2016) GRI 305 (2016)	EM-IS-110a.1, EM-IS-110a.2 EM-IS-130a.1, EM-IS-130a.2	●	Climate Change	SDGs 7, 11, 13
3 Enhancing energy efficiency	GRI 302 (2016)	EM-IS-130a.1			SDGs 7
4 Air quality improvement	GRI 305 (2016)	EM-IS-120a.1		Air Pollution	SDGs 11
5 Compliance with ethics management requirements	GRI 205 (2016)			Ethical behavior	SDGs 16
6 Eco-friendly product innovations	GRI 302 (2016)		●	Innovation of better products and services	SDGs 9
7 Virtuous Cycle of Resources (Use of recycled materials such as steel scrap)	GRI 301 (2016)			Resource availability	SDGs 11, 12
8 Enhancing technological development	Non-GRI		●	Innovation of better Products and services	SDGs 9, 12
9 ESG Management of Supply Chain	GRI 308 (2016), GRI 414 (2016)				
10 Mutually Beneficial Labor-Management Relations (Great Work Place - GWP)	GRI 402 (2016)			Dignity and equality	SDGs 8

## Managing 10 Major Material Issues\*

POSCO objectively analyzes the company’s ESG risks and status through active communication with stakeholders on 10 major material issues based on the materiality assessment. Moreover, we have specified management goals for the 10 major material issues and systematically manage the issues in connection with the KPIs of top management. We will continue to build a sustainable future by managing core ESG issues.

Critical Issues	Issue background and Our Approach	KPI	Performances in 2021	Targets for 2022	Activities
 <b>Workplace safety risk management</b>	POSCO has always worked to promote a culture that prioritizes safety and has strictly carried out safety management. To this end, the existing health and safety management system has been restructured with a focus on nine elements, such as strengthening the health and safety related obligations of the executive management, and matters for improvement are addressed through regular in-house inspections, approval of the board of directors and the assessment of external specialized agencies.	Number of injured employees	20	0	p.71
 <b>Climate change responses</b>	Based on the 2050 Carbon Neutral Vision, POSCO has established the 2050 Carbon Neutrality Roadmap, including the mid- to long-term comprehensive strategies and the low-carbon strategy. At POSCO, we will continue to strengthen our ability to achieve carbon neutrality by focusing on the three areas of decarbonization of production processes to reduce greenhouse gas (GHG) emissions, expansion of green products, and information sharing and cooperation with stakeholders.	GHG emissions	78.5million tons	74.8million tons	p.38~48
 <b>Enhancing energy efficiency</b>	POSCO is producing 88% of the electricity required by the steel mill in 2021 by using the energy generated in the steel production process. POSCO will continuously enhance the efficiency of its existing power generation facilities and further increase the use of the by-product gases generated in the steelmaking process toward maximizing the amount of autonomous power generation.	Rate of by-product gases generated	1.17%	0.71%	p.42
 <b>Air quality management</b>	POSCO has developed and implemented various plans to manage air pollutants. While managing the total quantity of air pollutant emissions with KPIs, Pohang Steelworks and Gwangyang Steelworks entered voluntary agreements with the government and reduced their air pollutant emissions by approximately 6% year on year. We continue to improve our air quality management by, for example, closing down open yards and expanding denitrification facilities	Total emission of air pollutants	61.5 thousand tons	60.8 thousand tons	p.51
 <b>Compliance with ethics management</b>	In order to establish ethical management as POSCO's corporate culture, POSCO operates ethical policies and other management processes to support all employees to practice them.	Completion for ethics training rate	99.9%	100%	p.15, p.127
 <b>Eco-friendly product innovation</b>	Beginning with 'INNOVILT,' POSCO has prepared 'e Autopos' and 'Greenable' as its three brands specializing in green materials, and is seeking to continuously pursue marketing strategies focused on the relevant steel materials and solutions development.	Eco-friendly product sales	6.32million tons	6.4million tons	p.46
 <b>Virtuous cycle of resources</b>	To ensure that the water resources and by-products of worksites are efficiently used for sustainable management, POSCO has implemented various plans for recycling and alternative resources. We focus on minimizing consumption through a virtuous cycle of most resources by increasing the alternative supply rate of water for the worksites and recycling most of the by-products generated from the steelworks across various fields.	By-product reuse rate	98.6%	98.4%	p.52~53
 <b>Enhancing technological development</b>	To build the low-carbon steelmaking process required for the carbon neutral era, HyREX, a hydrogen-based steelmaking technology, is under development, in addition to digitalization technologies such as AI. POSCO is endeavoring to develop steel products to enhance the product competitiveness.	WTP-F product development cases	51	47	p.35, p.42~43, p.95
 <b>Supply chain ESG management</b>	As a basic principle, POSCO promotes ESG purchases by procuring from suppliers that have eco-friendly operating processes and fulfill their social responsibilities.	Green Purchasing	USD2,661 million	USD2,628 million	p.62
 <b>Realizing a Great Workplace</b>	POSCO has actively provided support for systematically and fairly- selected employees to ensure that they can strengthen their professional competencies with a practical awareness and a caring attitude as corporate citizens. Furthermore, through a stable labor-management relationship based on trust and harmony, the POSCO Labor Union is also participating in activities to help achieve carbon neutrality, while promoting efforts to create a great workplace for everyone including partners.	P-GWP survey results	88points	87points	p.75

\* According to the materiality assessment result, of the 10 largest issues, workplace safety risk management, climate change response, and the enhancing energy efficiency of the 10 major material issues have been classified and managed as the core issues, while supply chain management and biodiversity (51p) have been classified and managed as emerging risks. (104-105p)

## Interviews with stakeholders



**Client**  
Purchasing Group,  
DA Division,  
Samsung Electronics  
Seung-hak Lee  
Principal Professional

I think POSCO has carried out the ESG management activities very well in 2021, relatively speaking. In particular, in addition to the presentation on POSCO's ESG policy conducted in advance, specific activities were also carried out based on practical collaboration to develop different types of steel. Furthermore, I think that it is necessary to work proactively by anticipating emerging regulations and issues in each country and region, such as net zero policies, and preparing in advance preparations accordingly. As a global supplier, POSCO must anticipate the various regulatory risks which may cause supply or cost issues for customers. Collaborative activities are essential in terms of joint research on the steel applied for the products. If Samsung Electronics and POSCO strengthen cooperation based on the technologies they hold in their respective fields and join forces to respond to global issues, they could create a sustainable future and contribute to strengthening the national competitiveness.



**Supplier**  
**Kyoungdo Industry**  
Yoon-soo Kim  
CEO

Kyoungdo Industry Co., Ltd. is actively participating in the various win-win growth programs operated by POSCO, such as the performance sharing system, smartization competency strengthening consulting, and the corporate citizen friends. From the perspective of small and medium-sized partners, it is so easy and natural to participate in the ESG management simply by joining in the various small programs that are helpful to us; as the saying goes, 'The journey of a thousand miles begins with a single step.' This is perhaps the most important aspect of POSCO's ESG management. Collaboration with all suppliers and customers in the supply chain is important in order for companies to grow into more complete and sustainable ESG management. This is because, from the macro perspective, the entire industry will eventually move as one. Currently, Kyoungdo Industry is participating in various programs in collaboration with POSCO to help improve the mutual competitiveness, but by expanding the collaboration in the fields of environment and safety, an important axis of the ESG management and currently the hottest topic, we expect that POSCO will be able to present a new paradigm for ESG management in the global steel industry as a "steel company free of environmental pollutions and disasters."



**ESG Specialist**  
Jipyong LLC  
Sung -taek Lim,  
Managing Partner

Before ESG management became mainstream in Korean society, POSCO raised the topic of 'corporate citizenship' and has made genuine efforts to build its social responsibility. POSCO is doing very well with its expansion and transition towards ESG management, internalizing the perspective on corporate citizenship across the company and management in this era of ESG. To help strengthen the implementation of ESG management, much progress needs to be achieved across the fields of ESG management, human rights management, responsible supply chain management, strengthening compliance with ESG integrated and stakeholder communication. First, it is important to pursue "human rights management" in depth from the perspective of various stakeholders. Strengthening the human rights mediated social dialogue from the perspective of workplaces, supply chains and local communities, internalizing various human rights perspectives inside and outside of the company, and endeavoring to create a community impact which takes human rights into consideration are the best solution required by investors and local communities, second only to the environment. It is also necessary to observe and anticipate not only domestic regulations but also trends in international regulations. For instance, the EU Carbon Border Adjustment Mechanism and the supply chain human rights related due diligence laws are challenging for POSCO. In addition, it is important to integrate the compliance system in order to manage the ESG risks beyond compliance and would also be desirable to closely communicate on and actively respond to the needs and flows of stakeholders such as the government, supply chain and consumers.



**Partner**  
**Roy Hill**  
Jen Letts Manager  
Communications

Roy Hill through its parent company Hancock Prospecting is committed to partnering with POSCO on Improving energy efficiency through its operations and on low-carbon steel raw material production. We think this collaboration is important for both POSCO and Roy Hill to develop a fundamental understanding of the economics of new energy generation and ironmaking processes in both Korea and Australia. We think this collaboration is important for both POSCO and Roy Hill to develop a fundamental understanding of the economics of new energy generation and ironmaking processes in both Korea and Australia. The joint research to establish a system for hot briquetted iron (HBI) production, using hydrogen-based steelmaking technology is a good example of this. We are beginning with one pathway but by working together we can evolve to new pathways as technologies are commercialized. Roy Hill is also committed to adopting advanced technologies that improve energy efficiency, lower operating costs, and improve our rail and mining network. Working with POSCO on these technologies will benefit both groups.



**Financial  
industry**  
**ESG Division**  
**KB Financial Group**  
Hye-sook Moon  
Managing Director

While POSCO has engaged in its core business of steel, which has attracted the most attention among the carbon neutral items, POSCO's declaration of carbon neutrality by 2050 is a remarkable achievement. Sustainable growth will be possible if POSCO proactively develops technologies and expands its investments in future core competencies for the low-carbon production, such as hydrogen-based steelmaking, in the context of having its current core competencies. If POSCO continues to pay closer attention to and support its supply chain so that they can smoothly implement the ESG management, POSCO's ESG management will really start to shine. POSCO and its supply chain will need to make tremendous investments in the process of making their transition towards eco-friendly facilities. This means that if collaborations are carried out together with KB Financial Group, excellent examples can be achieved. When the K-Taxonomy takes root, it is expected that a lot of investment funds in the market will flow into economic activities which conform to the K-Taxonomy. So, over the mid- to long-term, POSCO needs to make a transition into a production process that can satisfy the standards presented by the K-Taxonomy. Furthermore, it would be nice if preparations for diversification of procurement methods such as the ESG-linked financing methods such as sustainable bonds and loans are also made in parallel.

# Five Major Corporate Citizenship Brands

Special I

Our Five Major Corporate Citizenship Brands reflect POSCO's dedication to seeking out and practicing corporate-level roles toward a better society. Based on these, POSCO will participate in addressing social issues, and continue to grow as a company recognized and respected by all stakeholders to become a centennial company.



**A company you  
want to grow with**

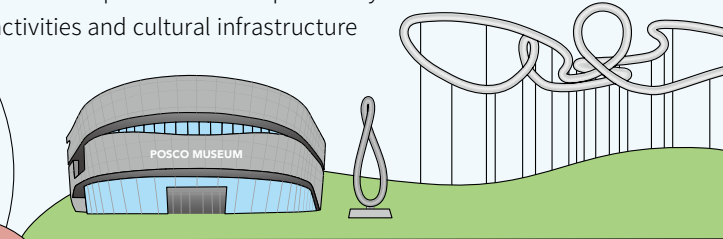
Creating the POSCO  
Venture Platform, which will  
set the stage to discover new  
business opportunities for  
sustainable growth

Challenge  
With POSCO

Community  
With POSCO

**A company you engage with  
for the local community**

Presenting a shared growth model for both  
companies and community through promoting  
various corporate social responsibility  
activities and cultural infrastructure



Together  
With POSCO

**A Company you want to work with**

Life  
With POSCO

**A company you build  
a future with**

Setting the corporate role model for  
resolution of the low birth issue and providing  
quality education for future generations to  
foster as global exemplary citizen



**A company you want to do  
business with**

Nurturing a robust supply chain  
and business ecosystem through  
collaboration and mutual growth  
with business partners



Green  
With POSCO

Signature

**A company you protect the environment with**

Declaring and implementing plans to achieve 2050  
Carbon Neutrality and bringing changes in everyday  
life to lead the environmentally friendly future





# Together With POSCO

## A company that you want to do business with

### e-Catalog (open sourcing)

- A supplier product promotion system that makes it easy for material suppliers to promote their products without visiting the steelworks. POSCO sources substitute products and excellent products and provides them to the departments where they are used.

### Fair and Timely Payment

- A fair trade style bidding system to prevent deterioration of the competitiveness of partner companies through excessive price competition and to improve POSCO's quality control
- A subcontract win-win payment system that allows primary and secondary trading companies to be guaranteed cash payment on the date of settlement, and allows the settlement payment to be cashed at a low financial cost even before the settlement date
- Full cash payment to small and medium-sized enterprises (SMEs) within three business days after delivery, twice a week (Tuesdays and Thursdays), to support liquidity

For half a century since its foundation, POSCO has played a leading role in shared growth activities, through which we have presented a new paradigm for the industry. High levels of business competitiveness can only be achieved when there is a robust industrial ecosystem and all companies in the value chain are prospering. POSCO will continue to pursue economic as well as social value creation by constructing a robust supply chain through its competency development.

### Benefit Sharing System

- A "Made in POSCO" shared growth program through which participating companies and POSCO jointly perform PJT-based improvement activities and share the results
- Participating companies promote structural improvements and technological development via voluntary improvement, while POSCO secures long-term competitiveness and realizes quality improvement.

### Productivity Innovation

- Smart capacity-building consulting that promotes productivity improvements such as management/manufacturing innovation and process improvement of SMEs, while providing the consulting needed for smart factory construction by assessing smartization levels and discovering tasks through Quick Six Sigma (QSS) innovation activities
- A support project to build a win-win smart factory for SMEs to realize waste-free factories by using advanced IT to optimize production processes, and to improve the performance and productivity of SMEs

### Corporate Citizenship Friends

- A program to practice the management philosophy of corporate citizenship in local communities through joint social contribution activities with partners (e.g., supporting vulnerable groups, improving safety and environment, etc.)

### POSCO Youth Dream Job Matching

- A program that provides practical training to young job seekers and links them with employment opportunities, to ensure that SME partners can hire excellent talent

### Shared Growth Consulting Section

- An employee-participating consulting program that supports the growth of partner companies through competence, infrastructure and the expertise of experts from each department of POSCO



Corporate Citizenship Friends\_Forest Development Project



POSCO Youth Dream Job Matching



Shared Growth Consulting Section

# Challenge With POSCO

## A company you want to grow with

### Opened “CHANGeUP GROUND Pohang”

Launched in July 2021, “CHANGeUP GROUND Pohang” is a start-up incubation space that identifies and fosters excellent venture companies by providing regular support before startup based on Korea’s leading industry-academia-research infrastructure. Since the launch of CHANGeUP GROUND, the number of employees in resident companies has increased by about 30% to approximately 750, and the total corporate value has also increased by about 50% to KRW 800 billion. POSCO, together with the City of Gwangyang, is planning



to open “CHANGeUP GROUND Gwangyang”, following Seoul and Pohang, in connection with the urban regeneration project of the Ministry of Land, Infrastructure and Transport.



Article about introductory video of "CHANGeUP GROUND"

### Biz-Day, extending support for market development for venture companies

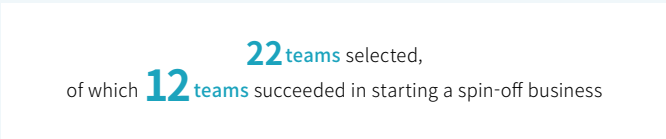
Biz-day, which has been in operation since 2020, is a program that supports market development through business connection between POSCO Group and venture companies. A typical successful case of 'biz-day' is 'Nodtox', which developed 'smart safety ball', a multifunctional portable gas detector. POSCO aims to increase the opportunity for this program by systematizing the 'biz-day' process, switching to regular operation, at the same time, and expanding the scope of POSCO Group participation.

POSCO is the first large-scale company to have launched a startup discovery and nurturing program. Since then, we have supported remarkable venture companies and developed an in-house venture nurturing program. In particular, the POSCO Venture Platform, which consists of the Venture Valley and Venture Fund, is serving as a driving force for the innovations and sustainable growth of the POSCO Group by discovering, nurturing, and investing in these promising venture companies.

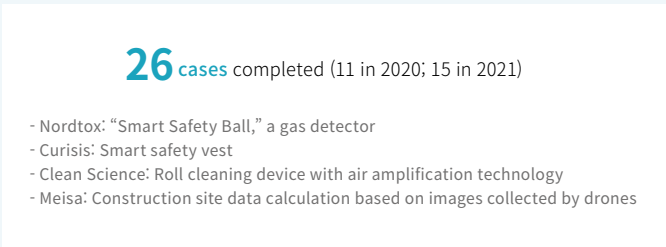
### “POVENTURES,” an in-company venture development program

Since June 2019, POSCO has run POVENTURES, an in-company venture development program, to create an ambitious and creative culture and discover new growth businesses. The teams selected for POVENTURES go through an incubation period of up to one year before deciding whether to start a business. During the incubation period, they receive support in the form of office space, marketing funds and mentoring. Among the notable in-company venture companies are Iomtech, which produces “Slastic,” a composite material for use in construction that combines steel slag and waste plastics, and Posregen, which processes ferronickel byproducts to produce ground solidification materials.

#### POVENTURES performance for 2019-2021



#### Biz-Day Matching for 2020-2021



### Venture Fund Establishment and Investment

POSCO Venture Fund works to increase value for its shareholders by creating optimal funds for each growth stage of the venture companies with the best investment managers at home and abroad under the principle of “full cycle-global-virtuous cycle.” Thus far, KRW 272 billion has been committed for 14 funds to form a fund of KRW 1.4 trillion or more, and over KRW 550 billion has been invested in more than 650 domestic and foreign companies. It has been planned to continuously reinvest returns on investments made from the Venture Fund to ensure that the Venture Platform can continue to operate, and to expand the investment pool each year in connection with creating POSCO’s new growth engine.

### 10th anniversary of POSCO IMP, a gateway for ventures

POSCO IMP (Idea Market Place), recognized as a nationwide venture company recruitment portal, is a start-up discovery and fostering program that was launched in Korea in 2011, and is POSCO’s classic venture start-up support program. Through POSCO IMP, POSCO invites ideas from those hoping to start their own start-up as well as venture companies that have been around less than three years, and helps them to build a network with investors, or makes direct investments in them up to a maximum of 500 million.

#### 10 years of IMP, by the numbers

venture companies selected over 10 years 411 (22 times in total)	IMP-supported venture companies valued at a total of KRW 2 trillion	invested by POSCO KRW 21.8 billion (in 134 companies)
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## Green With POSCO

### A company you protect the environment with

#### Development of hydrogen-based steelmaking

As a key means of achieving carbon neutrality, POSCO is developing its own innovative hydrogen-based steelmaking technologies. Furthermore, as a global steelmaker and corporate citizen, we are promoting carbon neutrality across the steel industry worldwide by hosting the Hydrogen Iron & Steel Making Forum, which is participated in by global steelmakers.



A man from the future

#### Silicate Fertilizers

POSCO supplies slag, a representative steel by-product generated when molten iron is extracted from a furnace, as a raw material for silicate fertilizer. According to studies by specialized agencies, silicon (Si), the main component of slag, is an essential element in rice growth. Si also improves the texture and taste of rice, and increases yields by strengthening the stem of rice more than three-fold. In addition, given the effect of iron ions (Fe3+) contained in the blast furnace slag, the activities of methanogens are reduced in rice fields sprayed with silicate



fertilizer. This reduces the amount of methane gas, which contributes to lowering greenhouse gas emissions by the agricultural sector.

With the goal of achieving carbon neutrality by 2050, POSCO engages in a range of activities to promote a low-carbon circular economy. In addition to our internal innovation efforts, we are considering and implementing various low-carbon, green activities, working in solidarity and collaboration with our stakeholders.

#### Recycling of waste shells for the steelmaking process

POSCO is contributing to improving the local environment by recycling abandoned waste shells piled up along local coasts such as Tongyeong, Goseong, and Yeosu. Waste shells used to be a major issue for the local communities due to difficulties in disposal, low recycling rates of 10%, odors caused by neglect, and wastewater and dust problems. Yet, using the fact that these waste shells are mainly made up of calcium compounds that are similar to limestone, a secondary material used for the steelmaking process, POSCO developed a waste shell application technology and obtained the relevant licenses. Through such efforts, POSCO has formed a value chain of processing, producing, and supplying all the waste shells generated every year.

\* Shell: Collective name of shells from oysters, clams, etc.

#### Realizing low-carbon logistics using LNG cargo vehicles

Furthering the efforts to reduce carbon emissions in the steel production process, POSCO is promoting the introduction of LNG cargo vehicles to reduce the carbon footprint of transporting steel products. Not only do LNG tractors emit 19% less carbon dioxide (CO<sub>2</sub>) compared to diesel vehicles in the same class, but they also reduce emissions of nitrogen oxides (NOx) and ultrafine dust (PM2.5) by over 95%. Logistic companies in Pahang and Gwangyang are now operating 11 LNG cargo vehicles and POSCO plans to expand the low-emissions tractors.



#### Carbon reduction activities in the daily lives of employees

POSCO employees are making small changes in their daily lives to become carbon neutral. All employees are actively participating in efforts to reduce carbon emissions in their daily lives by using tumblers instead of disposable cups. Since last year, they have been running the “Courageous Lunch Box” project has been launched and operated, in which work lunchboxes were changed from disposable to reusable containers. In addition, POSCO has organized “My Little Challenge,” in which all employees make small efforts to reduce their carbon footprint by using public transportation, taking the stairs and saving power.



What are “My Little Challenges” that I can address through Small Habits to Practice?



# Life With POSCO

## A company you build a future with

### Implementation of a proactive childbirth and childcare support system, and providing a “reliable safety net for employees, whenever needed”

POSCO has implemented a childbirth-friendly system to consider the life cycle of its employees and foster a childbirth-friendly workplace culture. Particularly, we are promoting the physical and psychological stability of employees preparing for childbirth, infertility treatment, spouses’ birth, etc., by extending the “work from home for childcare without career interruption” introduced in 2020. In June 2021, POSCO held the “Joint Declaration Ceremony for Shared Growth with Partners.” We provide the “POSCO Full Scholarship for Shared Growth” to children of employees at partner companies from kindergarten through college and university, through which we are taking the lead in alleviating the burdens of child-rearing. Meanwhile, using the Joint Work Welfare Fund, we are easing the burden of child rearing by offering the POSCO Win-Win Cooperation Full Scholarship, which covers tuition fees for children of partner company employees from kindergarten to university.

### Joint research and holding a seminar on childbirth-friendly policies, Proposing legal and institutional ideas

In cooperation with the Population Association of Korea and the Migration Research & Training Centre, POSCO conducted research on inclusive policies to help foreign nationals residing in Korea, including ways to help overseas talent settle in Korea. In November 2021, a population policy seminar was held with academia and government ministries such as the Ministry of Justice and the Ministry of Employment.

We are working with local governments to create great cities to raise children, centering on Pohang and Gwangyang, where the business sites are located. In addition, we are collaborating with colleges at home and abroad to help future generations grow into leaders with corporate citizenship, and we are also operating various programs to create jobs for young people.

### Promoting “Population Education Good Class Sharing Contest” by Public-Private Academic Partnership Forming Birth-Friendly Values for Growing Future Generation

POSCO signed an MOU with the Ministry of Health and Welfare for cooperation in the population education project and holds a contest every year (for three years from 2021) so that students can have positive thoughts on marriage, childbirth, and family-friendly life.

### Opening Corporate Citizenship courses at domestic colleges · registering them as an MBA example at Stanford University, Spreading ‘Concepts and Values of Corporate Citizenship’ to future global leaders

POSCO endeavors to educate college and university students on the concepts and practices of corporate citizenship. Six universities in Korea have organized corporate citizenship as a regular course, and the Stanford Graduate School of Business has registered “Case of POSCO’s Practice of Corporate Citizenship Management Philosophy” as an official case study. This case study will be used as educational content not only at Stanford, but also at world-class graduate schools such as Harvard, which has a case study sharing agreement with Stanford. In this way, POSCO is promoting corporate citizenship to inform future generations of the importance of coexistence and co-prosperity between society and companies.



### Youth Employment and Startup training program ‘For U Dream,’ Broad support to improve employment competitiveness and foster SMART talents Employment Academy (3 weeks)

Through the Employment Academy, POSCO provides support for young adults working to acquire basic skills for employment, such as employment strategy, cover letter coaching, mock interviews and AI competency testing. We are also enhancing the practical competitiveness of young adults by having them perform corporate tasks using the Design Thinking methodology.

### AI/Big Data Academy for Youth (12 weeks)

AI/Big Data Academy for Youth is a program that provides practical, competency-focused training on topics ranging from AI/Big Data principles and application techniques to problem-solving tasks, with the goal of fostering the future talents who will lead the 4th industrial revolution.

### Startup Incubation School (4 weeks)

The Startup Incubation School provides prospective entrepreneurs with startup knowledge in areas such as strengthening startup items, verifying business feasibility and writing business plans. The program also provides expert coaching to those who have developed excellent technological products to ensure that they can be selected for government-subsidized projects.

(2019-2021)

Employment Academy	AI/Big Data Academy for Youth	Startup Incubation School
2,435 Completed (1,082 Hired)	567 Completed (271 Hired)	277 Completed (151 Started business)

# Community With POSCO

## A company you engage with for the local community

### Global Good Citizens Week

The Global Good Citizen Week is a special volunteer week that POSCO Group’s employees have been participating in to solve social problems and contribute to local community development. This POSCO’s special CSR activities, which initially began with ‘Global Volunteer Week,’ changed its name to ‘Global Good Citizen Week’ in 2020 to further emphasize its role as a corporate citizen and co-prosperity with the local community. With the theme of ‘Raise the temperature of hope, and lower the temperature of the Earth,” the Global Good Citizen Week was held from June 1 to 8, 2021, in 53 countries around the world and focused on sharing hope with neighbors who have become more in need of help due to the prolonged COVID-19 and on conducting eco-friendly activities to save the Earth. In particular, participants this year were discovered in advance



with external organizations such as volunteer centers that have cooperated with POSCO in each region, and the quarantine rules were thoroughly observed.

### Support for art and culture

POSCO has made numerous efforts to expand the cultural infrastructure in the local communities in which we operate. We have donated sports and cultural facilities in Pohang and Gwangyang to local residents, while creating many other opportunities for residents to improve their health and enjoy their cultural lives.

Since our founding, POSCO has believed that growing together with local communities is a social responsibility. We are striving to develop business models that focus on having both the company and the community grow together by resolving common societal problems.

### Opening of Park1538 Pohang

Launched in April 2021, Park1538 Pohang was created as a space in which visitors can feel art and nature while enjoying a tour of the History Museum, Public Relations Hall, Hall of Fame and the Steelworks. 32,000 people have visited so far, and it has transcended its role as a corporate PR center to establish itself as a complex cultural space. Local residents and visitors can experience various contents to learn about the history and passion of POSCO and experience the environment friendly steel. Park1538 Pohang has also been recognized for its excellence in design and content and has received numerous awards, both domestically and internationally.

**Major Achievements**

- 2021 Republic of Korea Landscaping Award presented by the Minister of Land, Infrastructure and Transport (Landscape)
- 2021 Good Design Award presented by the Commissioner of the Korean Intellectual Property Office (Architecture/Landscape)
- 2021 Steel Award, Communication Program Award
- 2022 N-Award Digital Content Grand Prix (Interactive Cinema)
- 2022 Asia Design Prize, Grand Prize (Interactive Theater)
- 2022 Germany’s iF Design Award (Landscape, Integrated Sign, Kinetic Art Exhibition)



Park1538 Pohang main content "Iron Civilization"



Appearance of Park 1538 Pohang



The Spacewalk at Hwanho Park in Pohang

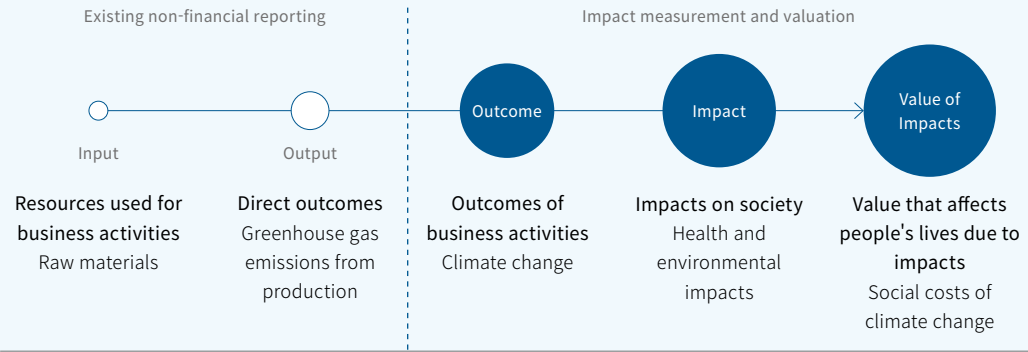




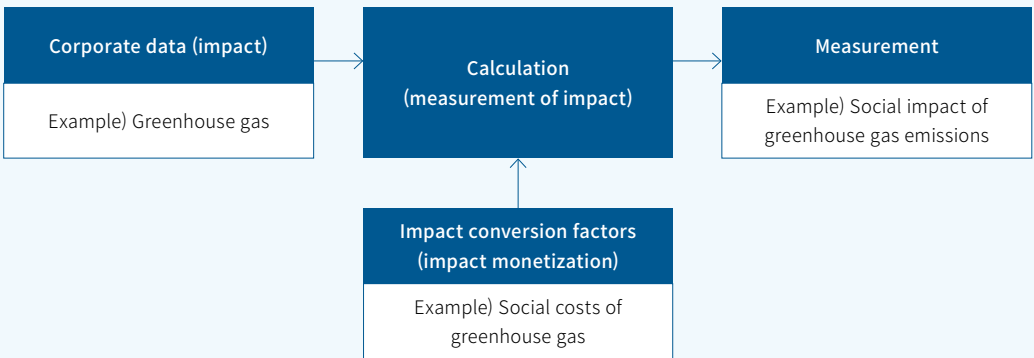
Method for Measuring Corporate Citizenship Value

While the existing non-financial reporting involved reporting input costs or activity outputs for management activity performance, corporate citizenship value measurement focuses on the actual results and impacts on society. To measure corporate citizenship value, we identify a pathway leading to the input, activity, output, and result, and measure the monetary value by formulating equations.

Measurement approach



Measurement process



Sustainability Disclosure and ESG Performance Data Application

ESG performance disclosure demands domestically and internationally are being strengthened due to the announcement of disclosure standards by International Sustainability Standards Board (ISSB), climate disclosure demands from the US Securities and Exchange Commission, and the ESG disclosure legislation by the Korea Exchange, etc.

To disclosures, it is expected that company-wide changes such as ESG performance management, ESG strategy/goal/KPI establishment, risk management and establishment of an integrated management system are required.

Accordingly, POSCO plans to develop an integrated system that manages ESG Performance Data by the end of the year and to improve the internal process for the disclosure.

As the impact of ESG performance on corporate evaluation has increased, we will continue to improve our corporate value by systematically managing and improving performances.

Disclosure of Measurement Results and Future Plans

Corporate citizenship value measurement constantly refines the measurement method and objective validity. This year, we are directly participating in the global standardization process by joining the “Value Balancing Alliance,” which develops methodologies for measuring social value. In the future, we plan to apply the VBA methodology to advance the corporate citizenship value measurement system. When measurement reaches a reasonable level, we will develop it into a global standard model for the steel industry by disclosing the measurement results and cases to our stakeholders.

# Corporate Citizen POSCO, Preparing for the Future

Special III

## Leading the global collaboration to accelerate the hydrogen era for the steel industry

Hydrogen-based steelmaking is expected to be a key means by which the steel industry can achieve carbon neutrality. Major global steelmakers are developing hydrogen-based steel technologies, and POSCO also plans to expand our introduction of hydrogen on a phased-in basis in line with regional conditions. Last year, POSCO held the Hydrogen Iron & Steel Making Forum, supported by worlsteel TECO, to promote the exchange of hydrogen-based steelmaking technologies across the steel industry and encourage collaboration at the global level.

### HylS Forum 2021 by the numbers

Participants	online 1,975, offline 53
<b>2,028</b>	348 organizations from 48 countries participated, including government agencies, academia, investors, energy companies and automobile companies
Presenters	5 associations, 2 international organizations, 11 steel companies, 1 raw materials company, 2 hydrogen suppliers, 5 engineering companies
<b>28</b>	

## Launching the world's first international forum on hydrogen-based steelmaking

POSCO held the “HylS: Hydrogen Iron & Steel Making Forum 2021” in Seoul and Pohang for three days from October 6 to 8, 2021. The forum was held based on a shared consensus between POSCO and the global steel industry on the need for steel experts to discuss measures for carbon neutrality. A total of 2,000 people attended from 48 countries, with the participation of 29 companies including hydrogen suppliers, international organizations in the energy sector and steel associations. Various topics on reducing carbon emissions in the steel industry were presented through three presentation sessions on Policy, Technology and Collaboration. The knowledge and experience of experts on the development of hydrogen-based steelmaking technology were shared. Together with the Swedish steel

company SSAB, one of the leading companies for hydrogen-based steelmaking technology, POSCO reported the progress on it's development of own hydrogen reduction steelmaking (HyREX) technology. In addition, information was shared throughout the steel supply chain on topics such as facility engineering solutions and the role raw materials and energy suppliers can play in hydrogen-based emissions reduction. The HylS forum is significant for promoting collaboration for the era of net zero steel, and POSCO plans to make the forum a regular one. Through the forum, POSCO seeks to establish an open development platform for a hydrogen-based steelmaking technology, which will be key to the steel industry achieving carbon neutrality. Based on this, POSCO aims to take the lead in accelerating decarbonization innovations throughout the steel value chain.



HylS Forum 2021



HylS Forum 2021



Smart Factory 2.0 for Digital Transformation

With Smart Factory 1.0 (2016-2020), POSCO established and developed a foundation for organizational improvement, talent cultivation, efficient infrastructure construction and smart technology development for unit processes. Since 2021, POSCO has been promoting Smart Factory 2.0. Smart Factory 2.0 features integration and connection between processes through intelligence, and expansion of smart technology across the entire value chain. Through this, we plan to secure super competitiveness and achieve our future goal of transforming into a Digital Twin steelworks.

Strengthening competitiveness through smart technology

<div> <div></div> <div>Cost</div> </div>	<div> <div>Establishment of a cost analysis system (PosPLOT) based on Digital Twin</div> <div>By implementing a Digital Twin-based virtual steelworks, POSCO has developed and operated a PosPLOT system, which comprehensively determines profitability and cost analysis according to the changes in mixing ratios and raw materials. With this, we have minimized the opportunity costs of changing raw materials and laid the foundation for decision-making from a company-wide “Total Merit” perspective. Moving forward, we plan to expand its application from a simple fuel cost optimization solution to an analysis system for carbon neutrality.</div> </div>
<div> <div></div> <div>Facilities</div> </div>	<div> <div>Establishment of a facility failure prediction system</div> <div>After collecting various facility data and operational data such as currents, videos, web cameras and vibrations, POSCO has developed a facility failure prediction system that uses smart techniques such as AI models to detect and prevent facility failures. We plan to minimize accidental failures by first applying this system to core facilities, and ultimately to reduce facility failures by expanding and developing all processes in the future.</div> </div>
<div> <div></div> <div>Safety</div> </div>	<div> <div>Application of Smart Safety solutions</div> <div>POSCO is building an accident-free workplace by applying “Smart Safety,” which incorporates smart technologies into existing safety activities. We have ensured worker safety by automating manual tasks, applying robotics solutions to high-risk work, such as zinc pot dross removal robot. We have also developed smart solutions such as Smart Safety Jacket and a Smart Safety Ball which detect workers’ unsafe behaviors and dangerous situations in advance and prevents accidents through promptly sharing the relevant information. By applying these solutions, we plan to build, advance and expand Smart safety model plants across the company.</div> </div>

- 1

Production Plan

Reduced design time for small lot orders

AI reduces the average processing time of small lot from 12 hours to 1 hours.
- 2

Ironmaking (Raw Material Yard)

Real-time tracking of raw materials and inventory measurement using drones

We track raw unloading, stacking and transferring of raw materials to the blast furnace in real time, simulate the optimal mixing of raw materials, and safely and accurately measure raw materials yard inventory using drones.
- 3

Ironmaking (Sintering ~ Blast Furnace)

Fully connected control of raw material - blast furnace

We operate with high efficiency and eco-friendliness based on the synergies between optimization through the automatic control system in processes prior to sintering and AI blast furnace with an integrated automatic control system.
- 4

Steelmaking

Heat loss reduction through smart technology

We reduce heat loss through the real-time management of temperature and lead time for each process. This includes real-time molten steel temperature prediction, TLC logistics optimization from blast furnace departure to steel production arrival, and the PTX (Posco Steelmaking eXpress) system between shipping and steelmaking processes.
- 5

Rolling

3D virtual plants Advancement of sensing technology

We have secured the stability of our facilities and operational data using advanced sensing technologies that

- incorporate image recognition and lasers. Through this, we are upgrading the operational system by improving the accuracy of existing forecasting models.
- 6

Galvanizing

Process Integration AI Control

To apply individual AI models to the core plating process and maximize operational performance (production, quality, and cost), we have established a process-integrated AI control that integrates the control of several AI models. Through this integration, we are achieving optimal operation, quality, and logistics that would be difficult to accomplish with a focus only on unit processes.
- 7

Shipment

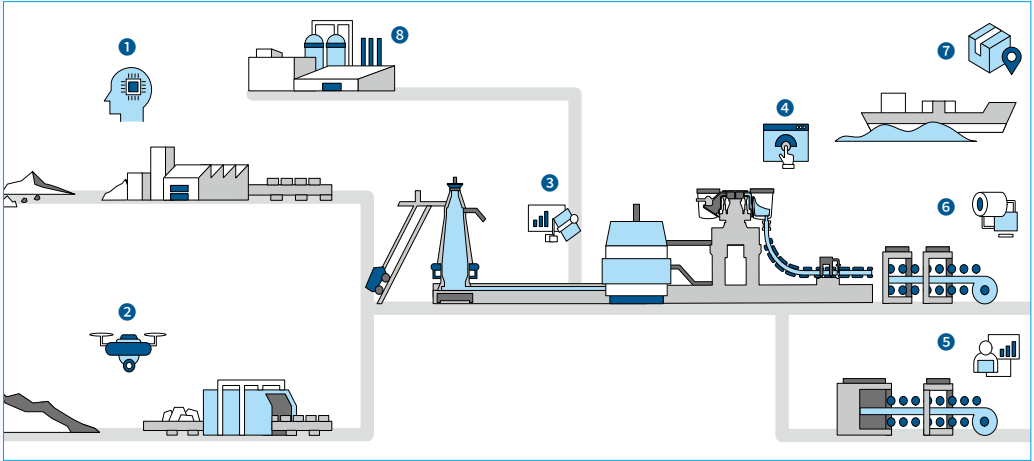
Timely supply to customers based on data-driven inventory forecasting

From warehousing to shipment, we predict short- and long-term inventory and manage real-time vessel information based on big data analysis and deliver products to customers in a timely manner.
- 8

Energy

Optimal control of power plants through by-product gas supply and demand forecasting

We integrate the by-product gas generation plant, power plant, and energy use data and learn using AI to accurately forecast by-product gas generation and energy use. In addition, we utilize zero-waste energy to minimize the waste of electric power by operating a power plant based on supply and demand forecasting.





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Eco-Friendly Steelworks

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POSCO  
CORPORATE CITIZENSHIP  
REPORT 2021



# Business



## We nurture a robust business ecosystem with business partners

We put the values of fairness, transparency and ethics into practice across all business activities. We pursue collaboration and mutual growth with partners and suppliers based on a culture of consideration and respect. We support customer success by providing the finest products and services.

- Among the principles of the POSCO Charter of Corporate Citizenship -



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# Achieving Carbon Neutrality

## Accelerating Carbon Neutral Transformation by 2050

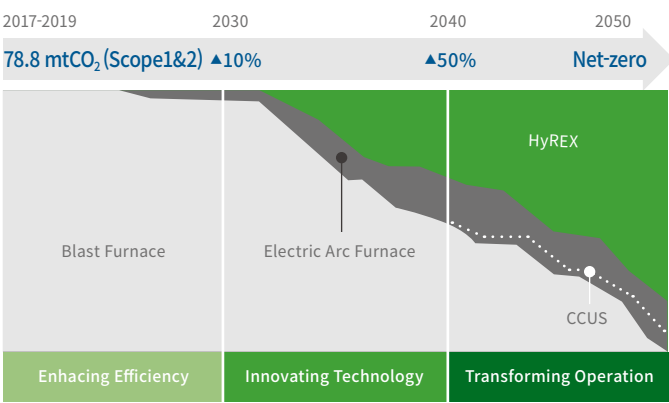
The UN IPCC Special Report, published in October 2018, highlights the importance of limiting the expected global average temperature increase by 2100 to 1.5°C above pre-industrial levels if the world is going to control the numerous threats posed by climate change. Many governments around the world, including Korea, have since pledged to achieve carbon neutrality by 2050. Major investment groups, businesses and their customers have followed suit, and are demanding other investment firms and their suppliers participate in this move. This is why POSCO recognized the urgent need to respond to climate change and established the “POSCO Carbon Neutral 2050” vision in December 2020 with the Board’s approval. We published the Climate Action Report in accordance with the guidelines of TCFD. Through these efforts, POSCO is endeavoring to be an exemplary

corporate citizen while increasing our competitiveness through transitioning into a low-carbon production line and restructuring our business model.

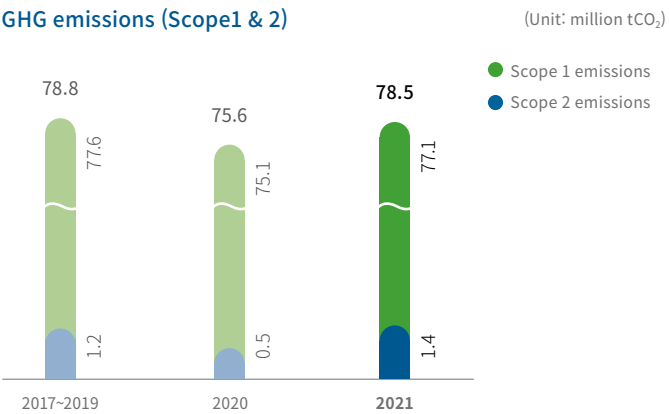
To realize the Carbon Neutral 2050 vision, POSCO has established the “2050 Carbon Neutrality Roadmap” that includes comprehensive mid- to long-term strategies in areas such as raw materials, investment, energy and technology development. As a short-term goal, we plan to introduce EAFs(electric arc furnaces) before the commercialization of hydrogen-based steelmaking technology. Moreover, we plan to use low-carbon raw materials by utilizing facilities currently in operation and reduce our coal and energy use by developing bridge technologies such as low-HMR operation and CCUS technology. As a long-term goal, we plan to achieve carbon neutrality by gradually introducing HyREX

facilities and electric furnaces based on renewable energy. POSCO expects the speedy commercialization of its hydrogen-based steelmaking (HyREX) technology given that it is based on the existing commercialized FINEX process. In addition, POSCO held the world’s first international Hydrogen Iron & Steel Forum, successfully forming a global consensus on technology development and establishing an international network of cooperation. To reduce our emissions, we continue to supply low-carbon products, expand the use of byproduct resources and expand the supply of secondary battery materials. Through such actions, we will meet the demands of our stakeholders, maintain our market competitiveness and contribute to a global reduction in greenhouse gas (GHG) emissions. (Target for 2030: 10% for reduction at worksites, 10% for avoided emissions)

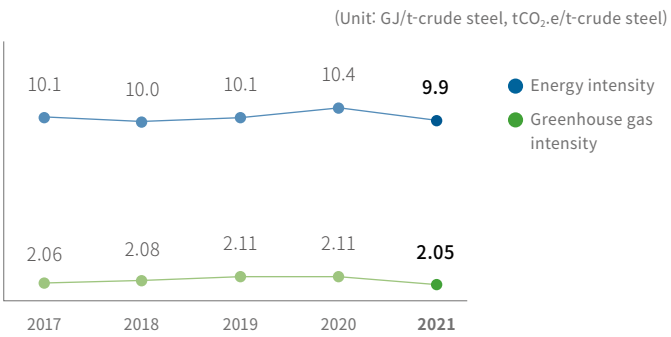
Net-zero Roadmap



GHG emissions (Scope 1 & 2)



Energy and greenhouse gas intensity<sup>1)</sup>



1) Coal used as a reducing agent is excluded from energy use.

## Status of GHG Emissions

In 2021, POSCO’s greenhouse gas emissions amounted to 78.5 million tons, a decrease of 0.4% compared to the base year of the 2050 carbon neutrality roadmap (2017-2019 average). Crude steel production increased by 37.6 million tons, a 1.6% increase compared to the base year, which resulted in an increase in emissions. However, following the use of expensive, low-carbon raw materials such as scrap and pellets and improvements to blast furnace and FINEX operation efficiency, the emissions quantity was improved to 2.05 tCO<sub>2</sub>/tS, which was a decrease of 2.1% compared to 2.09 tCO<sub>2</sub>/tS for the base year.

## Climate Change Risk Management

### POSCO’s 1.5°C climate change scenario: Risks and opportunities

The UN IPCC published a special report in 2018 stating that the global temperature rise must be kept to 1.5°C compared to pre-industrial levels or below if we are to prevent disasters caused by climate change. Global investors are calling for companies to assess risks and explore opportunities under the 1.5°C scenario as suggested in the TCFD guidelines. With thorough risk and opportunity analysis, POSCO will accelerate the low-carbon transition in the steel industry and expand new businesses in second battery materials and hydrogen.

### Response Strategy




POSCO’s low-carbon response strategy consists of three core areas: Green Process, Green Product and Green Partnership. Green Process focuses on technology development and investments to reduce GHG emissions in the production process. Examples include improving energy efficiency in the

production of steel and materials, investing in and developing low-carbon technologies and facilities, increasing the use of steel scrap, applying CCUS technology, and commercializing hydrogen-based steelmaking technology. Green Product refers to low-carbon steel materials, new materials and byproducts that can contribute to avoiding emissions, and POSCO will continue to expand the supply of Green Products. In addition, we plan to further strengthen the existing Green Partnership by transparently disclosing carbon information to investors, customers, governments, the World Steel Association and other stakeholders, while complying with domestic and foreign carbon policies and promoting technological development.

### Management System

Through regular personnel reorganization in 2022, POSCO has newly established a Carbon Neutrality Task Force to accelerate the transformation of the system of green steel production-technology-sales-raw materials-investment. We have also established the Carbon Neutrality Strategy Group, which is responsible for systematic implementation of the carbon neutrality roadmap, and the Electric Furnace Business Task Force, which is responsible for establishing electric furnaces, a core carbon-reducing project. Moreover, we have reorganized a research organization under the Low-Carbon Process Research Center to accelerate the development of technology including hydrogen-based steelmaking technology (HyREX) and research on electric furnaces.

### Risks & opportunities based on the climate scenario analysis

Type	Risk	Opportunity	Business
<div>Steel</div> <div>  </div>	<ul style="list-style-type: none"> <li>Expansion of low-carbon competitive products</li> <li>Reinforcement of carbon regulations</li> <li>Increase in electricity bills</li> <li>Increased exposure to natural disasters for steelworks</li> </ul>	<ul style="list-style-type: none"> <li>Increased cost competitiveness via low-carbon innovative technology</li> <li>Increased product competitiveness with high-efficiency steel materials</li> </ul>	<ul style="list-style-type: none"> <li>20% emissions reduction by 2030, 50% by 2040</li> <li>High-tensile EV automotive steel sheets and supply</li> <li>Expansion of supply of high-tensile steel sheets and high-efficiency electrical steel sheets</li> <li>Commercialization of carbon-neutral technology based on hydrogen reduction</li> </ul>
<div>Secondary battery materials</div> <div>  </div>	<ul style="list-style-type: none"> <li>Early reduction of EV subsidies</li> <li>Reduced EV demand due to rising price of electricity</li> <li>Declining demand due to lagging mileage improvement</li> </ul>	<ul style="list-style-type: none"> <li>CO<sub>2</sub> reduction effect compared to internal combustion vehicles</li> <li>Marketing opportunities in connection with EV steel sheets</li> </ul>	<ul style="list-style-type: none"> <li>Expansion of supply of high-capacity positive and negative anode materials for EVs</li> <li>Lithium business, waste battery resource recovery</li> </ul>
<div>Hydrogen/ LNG</div> <div>  </div>	<ul style="list-style-type: none"> <li>Business restrictions when Korea Gas Corporation’s monopoly is maintained</li> <li>Fall in prices for crude oil and renewable energy</li> <li>Safety issues including economic feasibility of securing hydrogen and explosions</li> </ul>	<ul style="list-style-type: none"> <li>Expansion of LNG and hydrogen using the government’s 9th power and hydrogen roadmap policy</li> <li>Easy to expand new business in connection with the current business (mining area/terminal - power generation)</li> </ul>	<ul style="list-style-type: none"> <li>Expansion of LNG terminal business</li> <li>Building of hydrogen vehicle infrastructure based on byproduct hydrogen</li> <li>Mass production of green hydrogen by water electrolysis</li> </ul>



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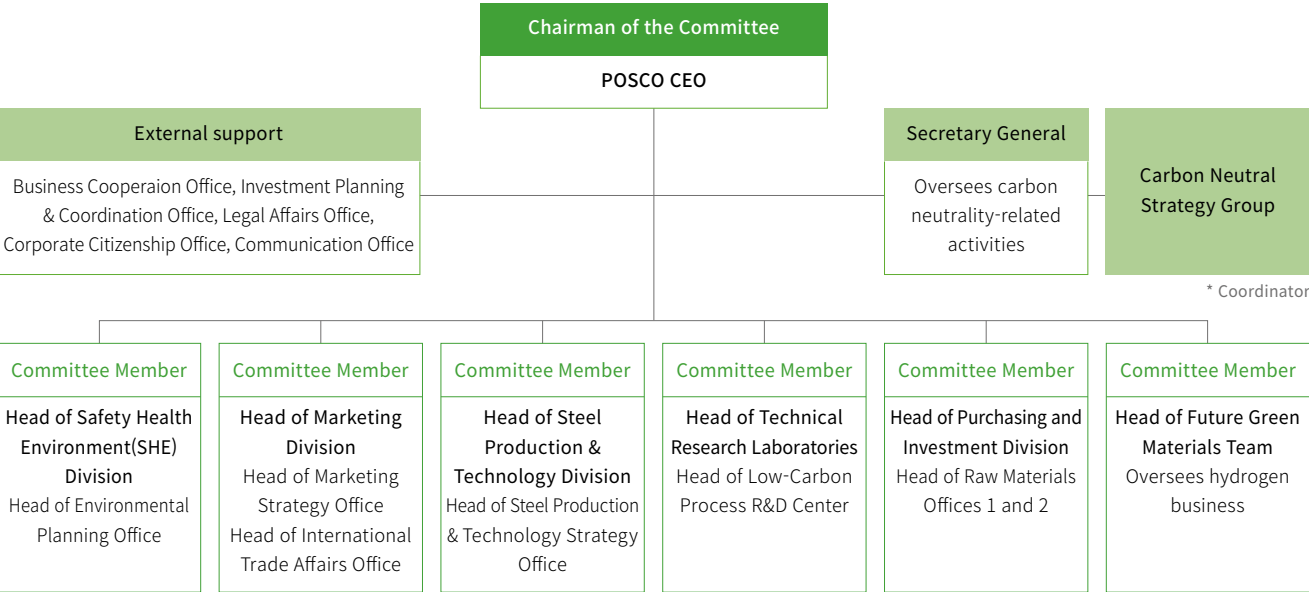
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POSCO has established the Carbon Neutrality Committee as a control tower to manage whether the carbon neutrality strategy is being implemented as planned and to resolve issues arising from the strategy implementation in a timely manner. Headed by the CEO, the Committee consists of management-level officers from the Safety Health Environment(SHE) Division, Marketing Division, Steel Production & Technology Division, Technical Research Laboratories, Purchasing and Investment Division and Future Green Materials Team. The Committee convenes quarterly or periodically and plays an important role as a carbon-neutrality decision-making body. Moreover, POSCO has established an advisory group for carbon neutrality, which consists of external experts, in order to listen to external opinions on its carbon neutrality strategy and direction. The important matters of discussion of the advisory group are addressed in conjunction with the Carbon Neutrality Committee.

Organizational Chart of the Carbon Neutrality Committee



The progress on POSCO’s carbon neutrality and GHG emissions are disclosed internally through internal operation meetings every month, and externally through the board of directors.

### Carbon Management System

#### Compliance of emissions trading scheme

POSCO established the greenhouse gas energy system in 2006 to implement systematic greenhouse gas reduction activities. In addition, we reorganized the system before enforcing the domestic emissions trading system to effectively manage the supply and demand of emission rights and costs and increase the transparency and reliability of the emissions measurement, reporting, and verification (MRV) processes.

In 2021, the first implementation year of the emissions trading system’s 3rd planning period (2021-2025), we improved the emissions unit by 2.1% compared to the base year by expanding the use of low-carbon raw materials and improving blast furnace and FINEX operational efficiency. Nevertheless, since emissions were expected to exceed the quota for emissions rights, emissions rights were purchased from the allowance market.

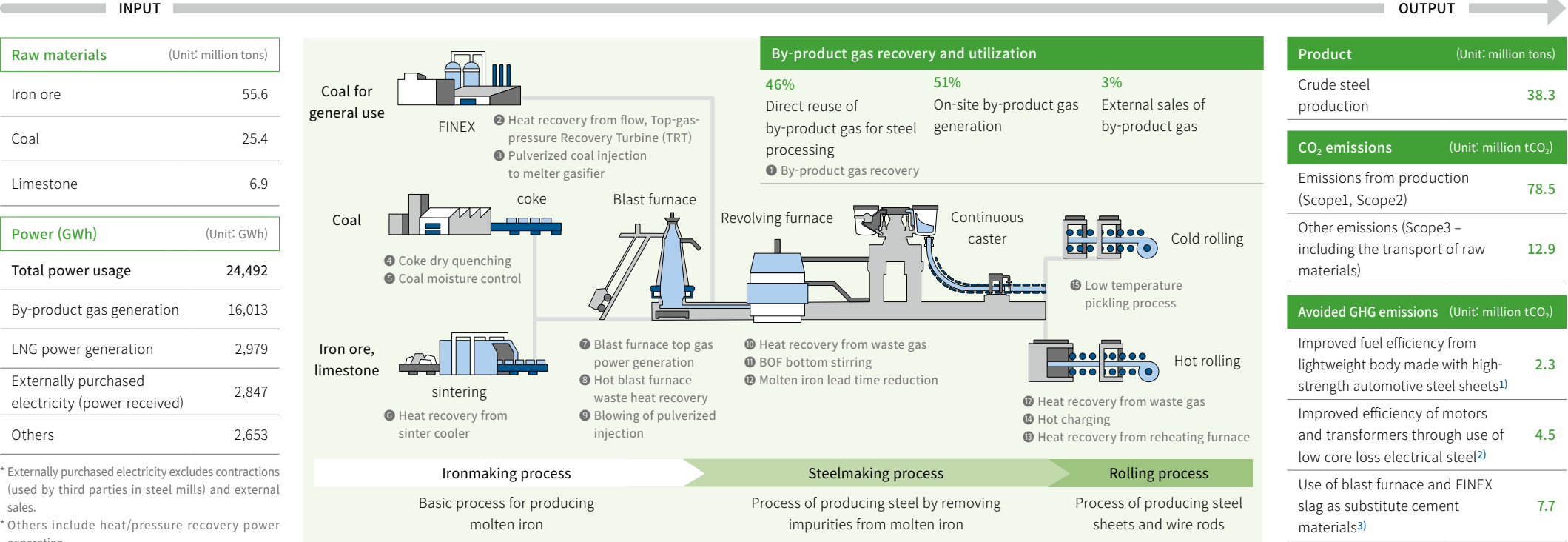
POSCO acquired ISO 50001 certification in September 2012 to systematically manage greenhouse gas and energy. We respond to the ISO 50001 certification requirements of our customers and stakeholders by managing and maintaining the certification through re-examination each year. Furthermore, in a Korean first, 13 POSCO steel products<sup>1)</sup> were certified in 2019 with the “Environmental Product Declaration (EPD)”<sup>2)</sup> by the Ministry of Environment. Also, POSCO was the first steel company in Korea to acquire a “low-carbon product” certification<sup>3)</sup> for steel and hot rolled steel sheets. In 2018, we were the first to receive environmental performance labeling for our Giga Steel products from UL<sup>4)</sup> Environment, a global certification agency of the United States, and have since been undergoing recertification every year. Due to reinforced carbon regulations and green social responsibility, our customers increasingly require third-party certification of our CO<sub>2</sub> emission units. We respond to such demands by using the EPD certificates. In 2021, we responded to this need with EPD certification of our CO<sub>2</sub> emission units, as required by Korean and foreign automobile and auto parts companies. The EPD certificates for each POSCO product are registered on Steel-N.com and available for download.<sup>5)</sup>

1) A total of 13 products including steel sheet, wire rod, hot rolled steel sheet, cold rolled steel sheet, hot-dip galvanized steel sheet, electroplated steel sheet, electrical steel sheet, stainless steel, PosMAC, etc.  
2) The eco-friendly product certification using Life Cycle Assessment (LCA) introduced by the Ministry of Environment in 2001 to provide consumers with accurate information on the environmental impact of production and to induce eco-friendly consumption. LCA is a methodology for assessing environmental impacts associated with all the stages of production, distribution, and disposal.  
3) Low-carbon product certification is granted if the greenhouse gas emissions of a product with a systemic carbon footprint certification are less than the average emissions of other products in the same category  
4) Underwriters Laboratories  
5) POSCO Business Portal site (www.steel-n.com): Divided mainly into e-Sales and e-Procurement that conducts sales and purchasing, respectively; supplier matching, electronic bidding, and exchange of various transaction documents and information are available



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POSCO Carbon Flow and Reduction Technology Status



## Low-Carbon Strategy

### Green Process

Most of POSCO's carbon emissions come from coal, limestone, LNG, or electricity. In 2021, iron making, which uses coal, made up 81% of the total. POSCO uses a number of reduction technologies to reduce GHG emissions, and is also developing new technologies in this area.

We are also strengthening our efforts to secure clean energy, in addition to the development of steel technology. We plan to invest in solar power generating facilities in parking lots and factory roofs, and also plan to gradually expand the use of renewable energy by signing power purchase agreement (PPA) and purchasing renewable energy certificate (REC).

### Improving energy efficiency

POSCO strives to improve energy efficiency by enhancing and managing the steelmaking process and maximizing power generation. As of 2021, we have generated 88% of our plants' power with byproduct gases from steelmaking. Furthermore, we have maximized our generating power through developing a technology to monitor and predict the amount of by-product gases produced and supplied for generation in real time. In addition to these efforts, we plan to streamline inefficient outdated equipment to boost efficiency and minimize the amount of wasted by-product gases.

### Investing in and developing low-carbon technology

In 2021, POSCO made a dedicated effort to improve the energy efficiency of the plants through investing in the enhancement of the steelmaking process as well as in the renewal, supplementation and replacement of recovered facilities. As a notable example, we have invested in the development of LDG

mixing technology within Pohang BFG to recover additional LDG and supply it to power plants. In this way, we are working on improving facilities and R&D to increase the recovery of byproduct gases.

### Reducing reliance on coal and adopting low-carbon alternatives

POSCO seeks to reduce greenhouse gas emissions by developing and applying smart technologies. Applying smart technology to our blast furnaces and FINEX leads to better control of the condition of the furnace, which in turn, will enable us to remedy operational variations and reduce coal consumption. Creating more uniform sintered ores through smart technology in the sintering process could also reduce coal use. Other efforts to reduce carbon emissions include shuttering inefficient small-scale facilities like Pohang blast furnace plant 1 and sintering plant 1, purchasing pellets, and installing new facilities.

### Increasing the use of scrap

Key advantages of steel include the fact that it is easy to sort and recover, and that it can also be recycled repeatedly. POSCO

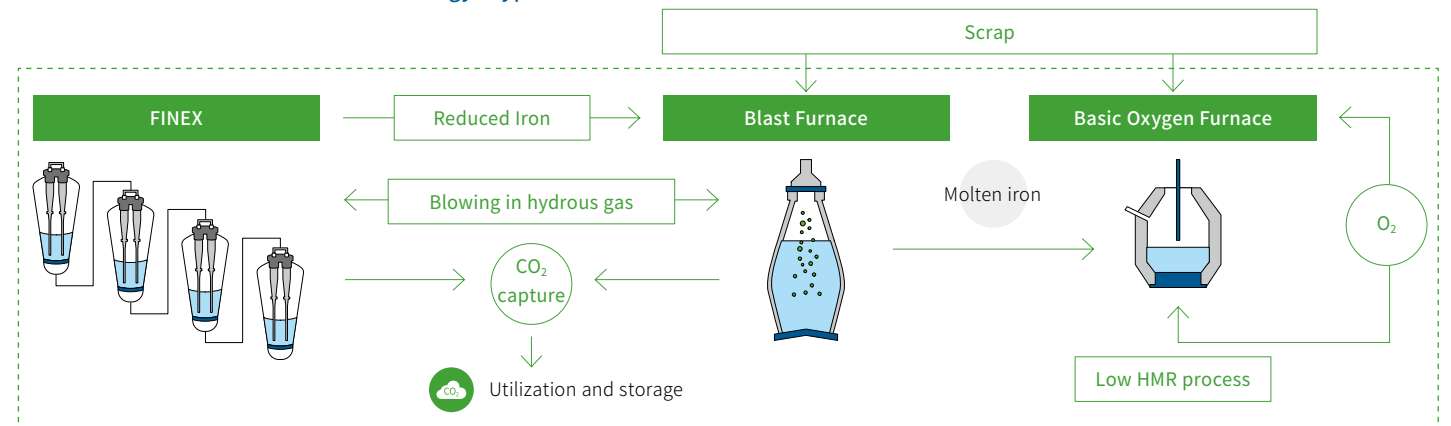
is working on "Low Hot Metal Ratio (HMR) technology," which can use a large amount of low-cost steel scrap in place of hot metal. When this technology is perfected, we can lower the molten iron input ratio (HMR) in the converter of the steelmaking process by 70%. Naturally, with lower HMR output, we will emit less greenhouse gases. We plan to introduce electric furnaces before 2030 and flexibly adjust the operation rate according to the supply and demand of raw materials and the relevant market conditions.

### Carbon capture utilization and storage (CCUS) technology

CCUS technology is an artificial method of capturing GHG in the atmosphere, in contrast to natural means such as forest and ocean absorption. The technology has been garnering attention ever since the Korean government pledged carbon neutrality by 2050. POSCO operates one of the biggest carbon capture facilities in the world, which separates CO<sub>2</sub> from the byproduct gases resulting from the FINEX process.

The exhaust gas of our CCUS facility contains 75% CO<sub>2</sub>, which is used as a process material in coke ovens and then turned into a coke process byproduct gas. We are also exploring various

### Blast furnace-based innovative technology (Hyper BF-BOF)



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ways to utilize the captured CO<sub>2</sub> as a raw material for chemical products or other alternative fuels. In addition to this, we are considering supplying captured carbon once a safe and sufficient storage infrastructure is established.

### Hyper BF-BOF for HyREX transition

POSCO defines its “Blast Furnace-Based Innovative Technology (Hyper BF-BOF)” as a stepping-stone technology that will lead to a stable and economical supply of renewable energy and green hydrogen generated power. We are well on track to developing and applying the new technology that will enable us to recycle the hydrogen in the byproduct gases from the coke and FINEX processes to extract and utilize natural gases that contain hydrogen.

### POSCO’s Hydrogen Reduction Technology

Hydrogen-based steel production is a revolutionary technology

that reduces GHG emissions by replacing coal, a reductant and a heat source in the iron making process, with hydrogen. POSCO’s FINEX process is known as one of the key technologies to complete hydrogen-based steelmaking as it has already applied hydrogen input and direct-reduced iron (DRI) manufacturing technology, the key elements of hydrogen-reduced steelmaking. The HyREX method, POSCO’s own hydrogen-based steelmaking approach, produces DRI in a fluidized bed reactor in the existing FINEX process by using green hydrogen, and produces steel by smelting DRI in the electric furnace that uses 100% renewable energy. POSCO will continue to develop hydrogen-based steelmaking technology by gradually increasing the hydrogen concentration in the two Pohang-based fluidized bed reactors to 1.5 million tons and 2 million tons each, annually. Our goal is to complete commercialization of the HyREX technology process after finalizing pilot tests and HyREX technology development within the next 10-20 years while gradually converting the blast furnace

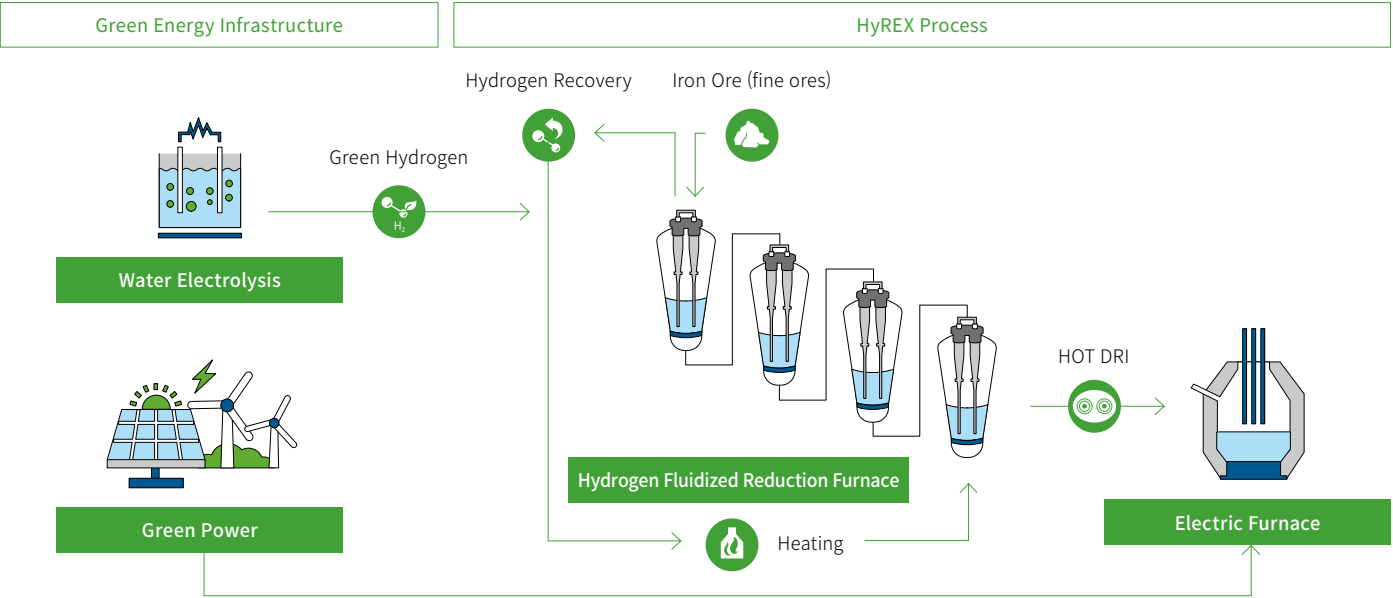
facilities to HyREX facilities.

For successful HyREX transition, POSCO needs 3.7 million tons of clean hydrogen and 4 GW of power generated by renewable energy per year. Consequently, a stable and affordable supply of clean hydrogen and electricity generated by renewable energy are the backbone of achieving carbon neutrality through hydrogen-reduction steel in in the industry. In light of this, the government’s support when building nationwide infrastructure is more important than ever. Recent policies such as the Green New Deal embody the government’s commitment to carbon neutrality. POSCO is also committed to this vision and will strive to achieve carbon neutrality in the steel industry through HyREX, which will be built upon successful infrastructure.

## Green Product

In addition to the GHG emissions reduction at worksites, POSCO endeavors to achieve indirect avoided emissions through the supply of low-carbon products and byproduct gases. We are expanding product solutions that contribute to reducing the carbon footprint throughout the value chain, such as by reducing the weights of automobiles using high-tensile steel sheets and by improving the energy efficiency of motors and transformers using high-efficiency electrical steel sheets. In addition, we are contributing to direct avoided emissions by recycling byproducts. Replacing cement clinker\* with granulated blast-furnace slag, supplying calcium silicate fertilizer that reduces GHG emissions in farming, and recycling TRITON that facilitates marine afforestation are all part of these efforts. POSCO plans not only to take the lead in building hydrogen infrastructure to utilize the hydrogen contained in byproduct gases from steelworks, but also to actively cooperate in building state-led hydrogen supply infrastructures.

\* Clinker: Cement raw materials such as limestone that are calcined at high temperature and become cement when pulverized.



### High-Strength Automotive Steel Sheet / High-Efficiency Electrical Steel Sheet

Ever since the government declared Carbon Neutrality 2050, many industries have been seeking measures to reduce GHG emissions. Particularly in the transportation sector, there is a growing need for lightweight materials as regulations on GHG emissions calculated by fuel efficiency are being imposed. POSCO is increasing sales of giga-class ultra-high-strength steel sheets, and sales of automotive steel sheets are also increasing. The sheets contribute to reducing GHG emissions by making vehicles much lighter and improving fuel efficiency. Electric motors are used throughout all sectors of industry, from transportation and construction to home appliances. In particular, the demand for high-efficiency electric motors in the transportation sector is growing, as the market for electric vehicles is expected to expand. Accordingly, POSCO plans to increase the proportion of sales of super high-efficiency electrical steel sheets that contribute to reducing GHG emissions by improving energy efficiency compared to conventional electrical steel sheets. In 2021, these sales contributed to reducing GHG emissions by 7 million tons.

### Granulated blast furnace slag

Granulated blast furnace slag is used as a substitute for cement clinker and siliceous fertilizer. As the slag has a chemical composition similar to that of cement, it can be pulverized and used as a substitute for cement. Its use as a substitute for cement facilitates a reduction in the energy used and GHG emitted during cement firing. In 2021, POSCO supplied 11.24 million tons of granulated blast furnace slag, eliminating 7.65 million tons of GHG emissions. Moreover, the silicate fertilizers we supply are made with granulated slag that has been pulverized and shaped into small beads. They suppress the generation of methane in farming, a by-product of the decomposition of

organic matter by microorganisms, and ultimately help lower GHG emissions.

## Green Partnership

### Disclosure of carbon information

Since 2003, POSCO has been included in the Dow Jones Sustainability Index (DJSI) and participated in the Carbon Disclosure Project (CDP) to transparently deliver climate-related information. In 2020, POSCO became the first Korean manufacturing company to declare support for the TCFD and disclose its carbon information according to the TCFD recommendations. Along with our announcement of carbon neutrality by 2050, we also publish a Climate Action Report reflecting the TCFD recommendations as well as a Corporate Citizenship Report disclosing the implementation, status and performance of our GHG reduction plans each year. POSCO has been proactive in carbon disclosure to meet the growing demands of our stakeholders through publishing our GHG emissions rate in our business report, holding performance presentations for investors, earning LCA-based eco-friendly product certification (EPD) and low-carbon product certification, and satisfying the ISO 50001 requirements. Moving forward, we will continue to pursue additional opportunities to share our progress with our stakeholders on the environmental front.

### Climate change partnership (government, industry, customers, and investors)

POSCO signed Carbon Neutrality Joint Declaration 2050 at the inauguration ceremony of the Green Steel Committee in February 2021, together with five other leading domestic steel companies. The Joint Declaration proposes numerous ways to achieve net-zero carbon. For instance, it suggests improving

energy efficiency, replacing existing fuels with low-carbon fuels, increasing iron scrap recycling, transitioning towards hydrogen-based steelmaking technology, and developing rolled steel for transporting stored hydrogen. Furthermore, through the formation of the Green Steel Committee, policy tasks for carbon neutrality are identified and discussed, and efforts are made to improve future competitiveness based on government R&D, hydrogen energy infrastructure construction, and support for the conversion of the production structure.

POSCO is also cooperating with the World Steel Association's actions to counter climate change in the global steel industry. We have actively engaged with World Steel to understand the steel industry's carbon footprint and find sustainable solutions through participating in the World Steel Association's Climate Change Policy Group and the World Steel Association's CO<sub>2</sub> Data Collection Project. As a result, we were included as a "World Steel Climate Action Member" ,launched in 2008, consecutively from 2008 to 2020 and were the first Korean steel company selected as a Sustainability Champion. In the second half of 2021, we held the world's first hydrogen-based steelmaking forum (HylS: Hydrogen Iron & Steel Making Forum 2021), through which we were able to discuss carbon neutral measures for the steel industry with 29 participants including major steel companies, raw material suppliers, engineering companies, hydrogen suppliers, international organizations in the energy sector and national steel associations.

In February 2021, POSCO joined the Ministry of Environment's K-EV100 project (Korean pollution-free vehicle transition), and has been actively cooperating with the Ministry of Environment. POSCO has replaced 9.3% of public vehicles owned and leased by the company with pollution-free vehicles internal combustion engine vehicles with pollution-free vehicles (such as electric vehicles and hydrogen vehicles) in 2021 and plans to gradually replace 100% of the vehicles with pollution-free vehicles by 2030.

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We are also strengthening partnerships with our customers through the POSCO Auto Steel Strategy (PASS), and are engaged with the Early Vendor Involvement (EVI) initiative that builds a foundation for cooperation in the field of green vehicles, by, for instance, developing materials for global automakers.

### Avoided emissions

To achieve the goal of carbon neutral, POSCO is making social reduction efforts by reducing work sites and expanding the supply of products and byproducts. Avoided GHG emissions are GHG emissions that can be reduced or avoided through low-carbon products compared to standard products across the entire value chain. We are expanding our portfolio of low-carbon steel products, such as high-strength steel sheets to make automobiles lighter, and high-efficiency electrical steel sheets that reduce power loss in motors and transformers. POSCO is also contributing to the social reduction of greenhouse gases by expanding the use of byproducts such as Triton, which promotes the creation of sea forests. Social reduction is a way to achieve emission reductions beyond what can be achieved with a focus on worksites alone, and POSCO will contribute to achieving carbon neutrality by continuously expanding the supply of low-carbon products and byproducts.

\* Clinker: Cement raw materials such as limestone, which are calcined at high temperature and become cement when pulverized.

In November 2021, POSCO Research Institute devised “Accounting and Reporting Guidelines for Avoided GHG Emissions: Along the Value Chain of Steel Products and By-products” with the Korea Business Council for Sustainable Development (KBCSD) and the Korea Iron & Steel Association (KOSA). As the first steel-



industry-focused guidelines on avoided emissions in Korea, they provide instructions on how to reliably calculate avoided emissions. POSCO seeks to provide reliable information for our customers and stakeholders by calculating its avoided emissions in accordance with the Guidelines.

## Issuance of ESG bonds\*

### Issuance of green bond exchangeable bonds

In September 2021, POSCO successfully issued 1.1 billion EUR in green bond exchangeable bonds, the first Euro-denominated green bond exchangeable bonds issued by POSCO. Since becoming the first steel company in the world to issue 500 million USD in sustainable bonds in July 2019, POSCO has effectively communicated its specific and unwavering sustainability management goals and management policies, attracting the attention of many ESG investors.

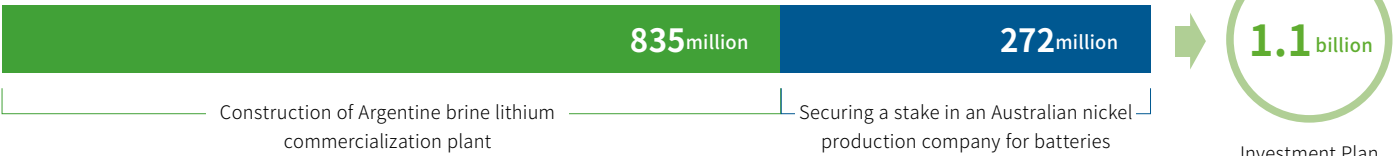
\* Green bonds are special-purpose bonds to finance green projects such as renewable energy, electric vehicles and high-efficiency energy.

#### [Sustainable Financing] Green bond exchangeable bonds issued in September 2021

ISIN	XS2376482423 (Reg S)	Share price Number of shares exchanged	KRW 341,000 (closing price on August 13, 2021) 2,932,480shares
Date of maturity	September 1, 2026 (5 years)	Premium	45%
Currency/amount of issuance	EUR 1,065,900,000	Exchange target	POSCO treasury shares

### Green Eligible Projects Investment Plan

Investment plan of 1.1 billion euros in secondary battery material for electric vehicles such as lithium and nickel



\* ESG bonds were transfered to the POSCO Holding’s debt following the split-off

### ESG bond issuance related funds

POSCO is actively engaging with green policies, which are drawing attention globally, and is pushing forward the lithium secondary battery material business to fulfill its role as a corporate citizen in the emerging era of electric vehicles. A major strategy for POSCO’s secondary battery materials business involves a focus on materials such as lithium and anode materials based on our technological prowess and our relationships with global automakers. POSCO Lithium Extraction (PosLX) technology can be used for both salt lakes and ores. POSCO has also secured the raw materials of high-quality brine from Argentina and ores from Australia. We plan to use the funds raised to build a plant to commercialize brine and ore lithium in Argentina, and in 2021, we spent KRW 364.8 billion (EUR 272 million) on a stake in an Australian battery nickel producer to secure a stable supply of the battery materials.



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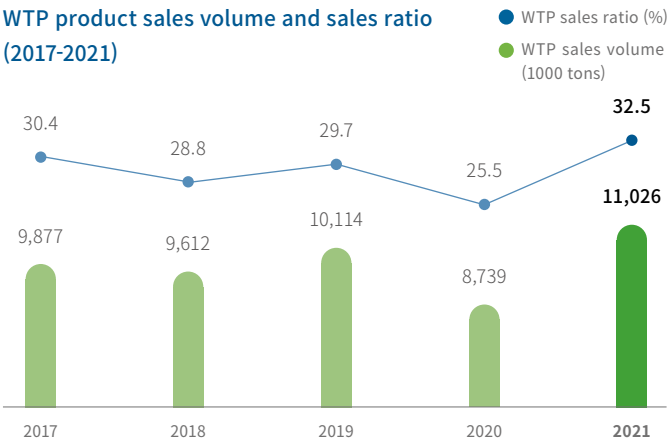
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# Innovating Green Materials

## World Top Premium Products

POSCO pursue a marketing strategy centered on high-value-added products based on World Premium (WP) concept and World Best (WB) products to form World Top Premium (WTP) products that focus on strengthening our premium marketing approach. In 2020, we were developing products that have high future potential by segmenting our marketing strategy into World Top Premium Future (WTP-F), World Top Premium Candidate (WTP-C) and WTP(Harvesting). These strategies take into account the life cycle, technological completeness and profitability of our products. In 2021, the sales of WTP products showed high growth of 11,026,000 tons, and the ratio of sales of WTP products was 32.5%.



## Green Industries, the Future Flagship Market

POSCO continues to broadly expand its green product groups to dominate future growth markets. To proactively respond to the needs of the green energy sector, POSCO reorganized the organization dedicated to green energy (wind power, solar power and hydrogen energy) within the marketing organization. We have selected 38 specific products that reduce emissions of CO<sub>2</sub> and harmful substances, and further classified and advanced green product groups within target markets. Following this, we established a mid-term product

development roadmap to identify opportunities to reduce CO<sub>2</sub> across the entire life cycle of customer products and link them to development whenever market demand is demonstrated. POSCO plans to expand its sales target of green products to 6.4 million tons by 2022 and to focus on developing the relevant steel materials and solutions. While promoting our mid- to long-term green marketing strategies, we will also work on three major green brands of e Autopos, Greenable and INNOVILT, actively contributing to achieving carbon neutrality by 2050.

Definition	Key Market	Green Products	
Steel products for green energy generation facilities	Wind power	• Structures (towers and substructures, etc.)	• NO
	Solar power	• PosMAC	• GI, GI(H)
	Hydrogen	• Fuel cell bipolar plate	• High pressure vessel/pipes, etc.
Steel products for green energy use	LNG	• Cryogenic steel for tanks	• LNG propulsion container ship/transport icebreaker applied steel
		• 304L for cargo hold of transport ships	• Steel pipe for terminal ground structure
	Green vehicles	• Battery cases • Advanced high-strength steel (AHSS) • Steel pipe for hyperloop	• NO for traction motor • Ni-plated steel sheet for secondary cell
Steel products contributing to reducing carbon emissions by increasing energy efficiency	Internal combustion engine vehicles	• Advanced high-strength steel (AHSS)	• Fuel efficiency improvement/heat treatment omitted steel
Steel products contributing to reducing environmental pollution and worker safety	Home appliances	• Graphite free-cutting steel	
	Others	• ANCOR steel • Ni-plated steel sheet for secondary cell	• Steel for desulfurization/selective catalytic reduction (SCR) facilities



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## ‘INNOVILT,’ Green Premium Brand of Construction Steel Products

Since launching the “INNOVILT” brand in November 2019, POSCO has had a total of 208 steel construction materials certified as INNOVILT products as of December 2021, and signed an alliance agreement with 124 customers with INNOVILT certified products. POSCO offers the INNOVILT certification for products with green safety performance that can lead future sustainability.

Made with high-strength steel, our various INNOVILT construction products help reduce carbon emissions, as they boast efficient structural performance and construction quality that enables the use of building materials to be reduced and the construction period shortened. The interior and exterior materials, made with PosART technology, can give the feel of wood and stone without damaging nature by logging or quarrying. The base materials used for fixing interior and exterior materials apply a non-welding fastening method that does not involve heat sources. By minimizing field work, accidents can be prevented, and dust and noise can also be significantly reduced.

POSCO is actively promoting and marketing INNOVILT-certified products. In 2021, we carried out active target marketing and took part in the following exhibitions and fairs: the Sharp Gallery interior and exterior materials exhibition in July, the international steel and nonferrous metal industry exhibition in October, and Korea Build Seoul and Busan — the largest construction materials fairs in Korea — in August and September, respectively. Through these events, we were able to invite about 1,000 people from construction companies, construction design companies, customers and reconstruction associations, in addition to 37,000 general visitors. Beyond all of this, we were able to use INNOVILT-certified products in various projects through the alliance collaboration with POSCO affiliated companies in construction such as POSCO E&C and POSCO A&C.

By setting eco-friendliness and safety as our core values, POSCO will continue to strengthen ESG competitiveness in the construction industry by supplying excellent steel building materials and solutions in cooperation with our customers.

## ‘e Autopos’ an Intergrated Brand of Eco-friendly Vehicles

POSCO has increased its sales of green vehicle products by over 110% compared to 2020 through active promotion and utilization of the integrated green vehicle brand, “e Autopos.” In this way, we were able to contribute to the growth of the electric vehicle market.

By working in collaboration with Korean auto parts makers, POSCO has lightened auto parts and reduced production costs by providing customized solutions. As well, POSCO has collaborated with POSCO Group companies such as POSCO Chemical and promoted e Autopos products and solutions to major global automakers and auto part makers. We have also established a strategic cooperation system with numerous customers including automakers in North America, and are proactively responding to customer needs by developing new products, including POSCO's battery packs and lightweight battery pack materials using composite materials.



A Booth of POSCO at 'Steel & Metal Korea 2021'

Moving forward, POSCO will lead the market while meeting carbon neutral and ESG needs by consolidating the expertise of Group companies including POSCO International, POSCO Chemical and POSCO Mobility Solutions in order to provide customized solutions and steel and secondary battery material products for green vehicles.

## Launching ‘Greenable,’ Green Premium Brand of Steel Products for Green Energy

Launched in November 2021, “Greenable” is a brand that integrates steel products and solutions applied for the production, transport and storage of future green energy such as wind power, solar power and hydrogen energy. This is POSCO’s third green product brand following “INNOVILT,” our premium green construction materials brand that was launched in 2019, and “e Autopos,” our integrated green vehicle brand launched in 2020. Greenable's main products include heavy plates for wind power towers and substructures, highly corrosion-resistant steel plates for base materials in solar power facilities, and hot-rolled steel plates for hydrogen piping and high-pressure vessels. Under the Greenable brand, POSCO will not only provide customized products and solutions for each energy industry but also will expand cooperation with global power generation developers and proactively target global markets by utilizing our overseas networks and the competencies of the Group companies.

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## Creating Joint Values for the Value Chain with Product Solutions

### Energy - PosMAC Super, steel for green energy

PosMAC’s newest product “PosMAC Super” is an innovative hot-dip galvanized product developed with POSCO’s first-class technology that demonstrates excellent performance in extremely corrosive environments thanks to its increased content of magnesium and aluminum. As it is 10 times more resistant to corrosion than general hot-dip galvanized steel sheets with the same coating weight, it can be applied in highly saline and humid aquatic environments or in island coastal areas that have been limited to conventional high-corrosion-resistance steel sheets. As a result, PosMAC Super will be at the forefront of steel for green energy that can respond to the rapidly changing market centered on low carbon and greenness. With pilot production launched in early 2020, PosMAC Super is currently being sold in prototype form and will officially be marketed starting from September 2022.

### Energy – Performance-enhanced steel for wind power

The global wind power market is expanding, with a primary focus on large-capacity offshore wind power. In response to the growing need for economical design to reduce LCOE,<sup>1)</sup> POSCO has developed steels with superior performance compared to existing standards. In cooperation with DNV, an energy-specialized technology agency and certification body, we are working on a steel type approval to ensure that our performance-enhanced steel can be reflected in the design of wind towers and substructures. These steels guarantee a certain strength even with increased thickness, and improved fatigue performance compared to conventional steels. As such, they will serve as solutions to improve the safety of wind towers and substructures and reduce the amount of steel used.

1) Levelized Cost Of Energy (LCOE): Calculated unit price of electricity produced by generator

### Shipbuilding – Cryogenic high-manganese steel for green LNG storage

In 2021, Daewoo Shipbuilding & Marine Engineering won a contract from Hapag-Lloyd (Europe) to build six container ships (23,660 TEU). These container ships are equipped with an LNG fuel tank, green technology to

reduce carbon emissions, and the tanks are made with high-manganese steel, marking its first-ever use as a fuel tank material. POSCO is providing solutions for the overall processing and welding technologies for manufacturing companies and tank manufacturers applying high-manganese steel for the first time. Based on this application case, the application of high-manganese steel for the LNG storage tanks on the LNG-powered ships will likely expand moving forward.



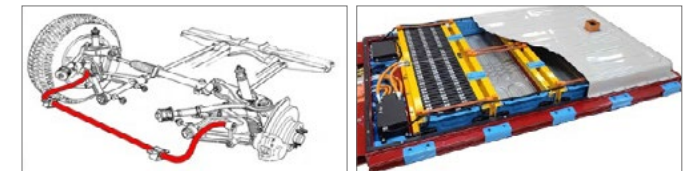
### Shipbuilding – STS steel for green LNG storage tanks

POSCO is developing and supplying the membrane-type STS steel used in the storage tanks for LNG, which is attracting attention as a next-generation clean fuel. Through such efforts, we are contributing to the expansion of global demand for eco-friendly ships. The membrane-type STS steel produced with POSCO's strict quality control has been internationally recognized for its excellence and is used for most STS membrane-type LNG propulsion ships. POSCO is actively diversifying the market, for example, in land storage tanks and fuel tanks for LNG propulsion ships.

### Automobiles – Green GIGA STEEL

Markets are being reorganized around green mobility due to environmental regulations, and the industry paradigm is shifting along with rising supply chain issues. To respond to such changes, POSCO is actively developing and expanding sales of “GIGA STEEL,” the next-generation automotive steel sheet. Compared to competing materials

such as aluminum and carbon fiber enhanced plastic (CFRP), GIGA STEEL has material competitiveness in terms of weight reduction, production cost and greenness. DP steel, CP steel, TRIP steel, third-generation steel, Mart steel and HPF steel are among the GIGA steels that are currently being mass-produced and developed.



Utilizing Post Heat Treatment Steel, Stabilizer Bar

Battery pack applying GIGA Steel such as Mart

### Home Appliances – Hyper NO\*, steel that innovates the home appliances industry

POSCO is making continuous efforts to develop and produce electrical steel sheets, a core material for motors that convert electrical power into kinetic power. A non-oriented electrical steel sheet factory with an annual capacity of 300,000 tons is under construction to meet the rapidly increasing demand for motors to achieve carbon neutral. POSCO is striving to supply electrical steel sheets even before the construction of the factory is complete. The magnetic properties of the premium Hyper NO produced by POSCO make the motor more efficient, saving energy and providing more power.

\* Hyper NO: A core material that is essential for motors used in premium home appliances requiring high efficiency, such as refrigerators and vacuum cleaners



Drive motor core using POSCO Hyper NO

Hydrogen vehicle motor using POSCO Hyper NO

# Eco-Friendly Steelworks

## Environmental management and investment

### Environmental strategy

Environmental management is an essential element in realizing sustainable management. Under its integrated environmental and energy management policy, POSCO strives to realize a sustainable low-carbon, green economy. To this end, we proactively respond to the rapidly changing external conditions and systematically carry out various activities to improve the environment in the local communities in which we operate. When we decide on mid- to long-term business strategies and new major businesses, we minimize potential environmental risks by reviewing and evaluating environmental impacts in advance. In 2021, we ran the Low-Carbon Green Council every quarter, supervised by the head of the Steel Division, to share major domestic and international environmental trends, and review and analyze environmental management goals and major issues. Since 2022, we have reported low-carbon green performance and issues to top management every month.

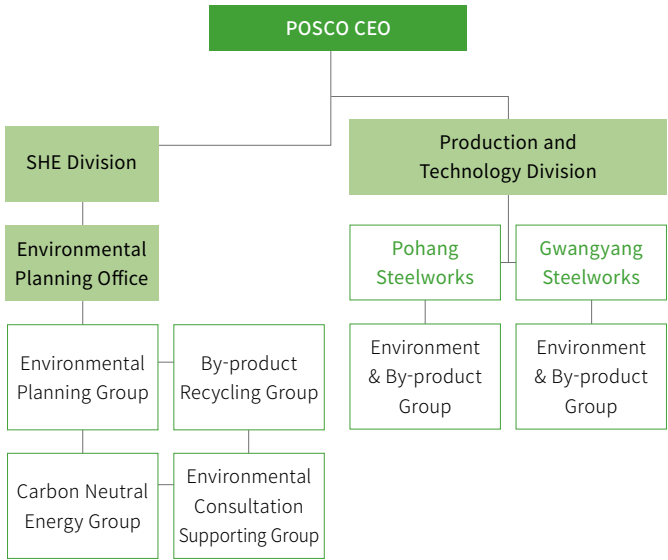
### POSCO Group Integrated Environmental and Energy Management Policy

To realize a sustainable low-carbon, green economy as a corporate citizen that is working with society to build a better future together, POSCO Group shall pursue the following priorities.

- We shall establish an integrated environmental and energy management system and comply with relevant regulations in accordance with ISO 14001/50001.
- We shall establish goals for our environmental and energy management activities and provide the resources necessary for achieving them to continuously improve the environmental and energy integration system, as well as performance.
- We shall reduce greenhouse gas emissions and minimize the impact on climate change by expanding the use of clean energy and introducing low-carbon process technologies.
- We shall practice resource conservation and environmental protection throughout the entire business process by efficiently using natural resources and byproducts, and developing green products.
- We shall minimize the emission of pollutants by applying green production processes and optimal prevention technology.
- We shall regularly inspect the integrated environmental and energy systems and performance, and report to and communicate with management.

### Environmental organization

POSCO operates the Environmental Planning Group, the Carbon Neutral Energy Group, the Byproduct Recycling Group and the Environmental Consultation Supporting Group under the headquarters’ Environmental Planning Office. These Groups establish company-wide environmental strategies and monitor their implementation. The Pohang Steelworks’ and Gwangyang Steelworks’ Environmental Resources Groups are implementing on-site environmental improvement activities to minimize the emissions of pollutants generated in production processes.



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Environmental investment

POSCO makes significant efforts in environmental investment to reduce emissions of stack pollutants and recycle byproducts. In the past 5 years (2017-2021), POSCO has invested KRW 1.49 trillion in coal silos, steelmaking dust collectors, and facilities for reducing NOx in sintering and power generation. Beyond this, we plan to invest approximately KRW 1.78 trillion in environmental facilities from 2022 to 2024, and do our utmost to suppress the generation of scattering dust by sealing the raw material yard. We will also continue to invest in improving the environment around our operation sites so that local residents near the steelworks can perceive it positively, while complying with environmental laws.

Key contents	
<div>Air Quality Management</div> <div></div>	Investment in reduction of NOx such as in sintering/power generation/rolling areas (SCR, SNCR, etc.)
	Investment for reduction of dust scattering in coal yards (silo, dustproof net, etc.)
	Investment for dust collection facilities to reduce fugitive dust in the steelmaking areas (roof dust collector, etc.)
	Investment in Tele-Metering System (TMS), blast furnace dust collecting bleeder facilities, etc.
<div>Water Quality Management</div> <div></div>	Investment in wastewater treatment facilities and management systems in raw material areas
	Investment in facilities to increase wastewater treatment and purification capacity (BET facilities, etc.)
<div>Recycling of Byproducts</div> <div></div>	Investment to increase processing capacity of recycling facilities for slag, dust, sludge, etc.
	Installation of waste storage facilities, investment in utility expansions, etc.
<div>Others (chemicals, soil, etc.)</div> <div></div>	Investment in reinforcement of management of hazardous chemical handling facilities (diffusion prevention facilities, warning facilities, etc.)
Total	

(Unit: KRW 100 million)

Total Investment (2017-2024)	
Cumulative Performance (2017-2021)	Planned (2017-2024)
6,247(80.4%)	7,773
2,018(21.1%)	9,547
1,846(39.6%)	4,658
3,808(50.3%)	7,573
54(10.6%)	510
401(21.2%)	1,886
29(14.0%)	205
221(92.6%)	238
292(97.1%)	301
KRW 1.4915 trillion (43.7%)	KRW 3.2690trillion



# Protecting the Ecosystem: Environmental Management / Recycling of Byproducts / Biodiversity

## Integrated environmental management

### Air Quality

POSCO is engaged in a number of different activities to comply with environmental regulations and improve air quality.

POSCO has selected the total amount of air pollutant emissions as one of the company's KPIs, and manages the target and the implementation of detailed plans. In line with this air quality control effort, Pohang Steelworks and Gwangyang Steelworks have signed a voluntary agreement with the government to reduce the generation of fine dust from December to March, when concentrations of fine dust are already high, and to reduce emissions by 5-10% year on year. In 2021, the amount of air pollutants (sulfur oxide, nitrogen oxide and dust) emitted

through the chimneys of the steelworks was 61 thousand tons, a 6% reduction compared to the 66 thousand tons emitted in 2020. In the long run, we aim to reduce annual air pollutant emissions to 49 thousand tons or less by 2024.

\*Calculation standards are applied in accordance with the "Special Act on Air Quality Improvement in Air Control Zones"



Clean Safety Valve(yellow) installed in Gwangyang Steelworks furnace#1

To realize sustainable environmental management, POSCO plans to make extensive investments in air quality improvement. In consideration of the properties of the raw material and operational efficiency, the coal yards will be enclosed primarily by 2026. The iron ore yards and other yards will be enclosed sequentially. The iron ore yards and other yards will be sealed on a phased-in basis. The sealing of all open yards is expected to improve fuel management efficiency and fundamentally block the scattering of dust, which can dramatically improve the air quality for local residents.

With regard to the nitrogen oxides contained in combustion gases emitted from the sintering process, POSCO intensively reduces and manages the emissions by operating denitrification facilities, using SCR\* and SNCR\*\* technologies. To this end, in 2021, 19 denitrification facilities were newly installed (4 in Pohang and 15 in Gwangyang). A total of 54 denitrification facilities are currently in operation (23 in Pohang, 31 in Gwangyang).

\*SCR : Selective Catalytic Reduction

\*\*SNCR : Selective Non-Catalytic Reduction

POSCO completed the installation of reduction facilities at Gwangyang Blast Furnace 1 and Pohang Blast Furnace 3 in July and October 2021, respectively, to ensure that discharged gases go through a pollutant reduction facility even when the blast furnace be blown down during maintenance (dust collecting bleeder). Following a safety verification, the remaining six blast furnaces will be installed by the first half of 2022 (2 at Pohang, 4 at Gwangyang).

POSCO has significantly improved the operation method of TMS, an automatic chimney measuring device, and continues to expand its facilities in order to better monitor fine dust at the steelworks and surroundings areas. In cooperation with the Ministry of Environment, we amended the relevant policies in December 2021, and introduced the wireless communication (LTE) method of TMS data, a first in the industry in Korea. This is considered a successful example of deregulation for the industry, as it has significantly lowered the risk of accidents by eliminating the long-distance cable construction and making maintenance easier. As of 2021, 72 TMS facilities are in operation, and this is expected to increase to 300\* by the end of 2023. It is believed that this will allow for more than 95% of the total emissions of the steelworks to be measured.

\* Based on the plan in December 2021

Both steelworks operate environmental monitoring centers 24/7 to strengthen local environmental monitoring, and have systems in place that enable immediate actions to be taken for vulnerable areas. Information on air quality around the steelworks is always managed transparently on the local environmental information disclosure boards.

Water

Recognizing that water resource management is an important issue for sustainable management. POSCO strives to minimize the risk of water shortages by optimizing water management and expanding recycling. In particular, we systematically implement and manage the reduction of surface water consumption, effluent quality control and increased wastewater recycling as key management issues.

To reduce the amount of surface water and groundwater use, POSCO is endeavoring to secure alternative sources of industrial water. To this end, Pohang Steelworks has been participating in a project to reuse treated water from sewage treatment facilities in Pohang since 2015, and has secured a stable supply of 80,000 tons of water per day. Gwangyang Steelworks established a desalination facility in the Donghoan region in 2014 to respond to the mid- to long-term water supply and demand prospects with the aim of attracting new businesses, and utilize about 20,000 ton of water per day. Consequently, in 2021, the Pohang and Gwangyang Steelworks replaced about 40% of the surface water used, while contributing to addressing the issue of water shortages for the local communities.

Water Pollutant Emissions (kg) *Data : Domestic Worksites	2018	2019	2020	2021
Suspended Solids (SS)	141,180	192,910	209,036	297,870
Chemical Oxygen Demand (COD)	595,793	624,368	705,886	562,455

To minimize the impact on the water quality around the steelworks, POSCO strictly manages the quality of the effluent. The withdrawn water is purified at the water treatment facility and supplied to each plant as fresh water. The water used at each plant is caught through an independent drainage system. Wastewater containing organic matter goes through primary physical and chemical treatments, followed by a secondary biological treatment, and is finally discharged to waters after a final treatment at a wastewater terminal treatment facility. To minimize the environmental impact, POSCO has established internal standards to maintain the concentration of major pollutants, such as COD and T-N, in the final effluent at a level of 20-80% of the legal limit.

While the nature of the integrated steelworks means that it is essential to use a large quantity of water, POSCO is working to recycle the wastewater by reusing it to the furthest possible extent, including relatively low-quality water used in processes. For example, we treat and recycle wastewater with low chlorine ion (Cl-) concentration generated in the rolling area at a raw water treatment facility through a separate pipe. Additionally, cooling water, along with rainwater and yard and road spray water, is collected at rainwater treatment facilities and recycled after reprocessing.

In recognition of such water management efforts, POSCO received the highest rating (Leadership A) in the 2021 CDP Water Security.

Chemicals

POSCO makes efforts to respond systematically to the reinforcement of domestic chemical management standards. In 2018, we registered four types of manufactured and imported chemical substances in line with the enactment of the “Act on Registration and Evaluation of Chemical Substances.” In

2019, we reported 100 types of existing chemical substances in advance according to the amendment of the Act in March 2018. Furthermore, in 2021, we joined the Joint Registration Council and completed the registration of 25 existing chemical substances that we handle in amounts of 1,000 tons or more per year.

Due to the nature of our production process, POSCO imports or manufactures various chemical substances. As such, since 2016, we have operated a system that monitors the distribution process from storage to use, as well as a location tracking system for vehicles carrying chemicals to minimize damage in the event of an accident. To comply with the strengthened chemical handling facility standards, we have also improved our on-site facilities by installing a leakage detection system.

POSCO focuses on preventing chemical accidents. In accordance with our plan for chemical accident prevention management implemented in 2021, we have established an emergency response system to secure the safety of hazardous chemical handling facilities and to minimize damage from accidents, and provided group training for employees who handle chemicals. Of particular importance are our Safety and Disaster Prevention Group at the steelworks, as well as the Safety Disaster Prevention Center equipped with special disaster prevention vehicles and specialized personnel. Through periodic private-public joint drills and special self-defense fire drills for each plant, we are improving our capability to successfully respond to chemical accidents at the earliest stage.

In addition, POSCO has established the MSDS system to systematically collect management information from the initial stage of a contract. For each manufactured product, a report on environmentally hazardous substances is issued for each material and disclosed for external stakeholders via the electronic transaction system (E-Sales).



## By-products

POSCO recycles various byproducts generated in the production process, including slag, dust and sludge. In 2021, we recycled 98.6% of all byproducts generated at the steelworks.

There are two types of slag, blast furnace slag and steel slag, and they account for about 80% of the total amount of byproducts. Blast furnace slag is a rocky material that is left after producing molten iron in a blast furnace. When the molten iron slag is cooled in high-pressure water, granulated slag is created. Conventionally, over 90% of blast furnace slag is granulated slag. Such granulated blast furnace slag can be used as a substitute for slag cement clinker\*. It has recently been attracting attention as an eco-friendly material since it allows for reduced GHG emissions in cement production compared to limestone. Together with RIST and POSCO E&C, POSCO is contributing to reducing GHG emissions and recycling byproducts by developing and distributing PosMent\*\*, which has an increased slag content of up to 58% compared to conventional slag cement.

Granulated blast furnace slag is used to make silicate fertilizers, as it contains a large amount of silicic acid, which is an essential nutrient for rice growth. The silicate fertilizers made with POSCO's slag help improve the quality of rice by making rice stems 300% stronger, increasing rice yields and lowering protein content to improve texture and taste. In addition, POSCO has conducted a study with a specialized institution on the effect of its slag silicate fertilizer, and confirmed that slag silicate fertilizers reduce GHG emitted when growing rice by about 14% due to the iron ions ( $\text{Fe}^{3+}$ ) in the slag lowering the activity of methanogens in rice fields. Going forward, POSCO will further promote the supply of silicate slag fertilizers to contribute to increasing farm household incomes and protecting the environment.

Steel slag is generated when refining molten iron in furnaces. It consists primarily of natural rock components such as lime and silicon dioxide, which are useful substitutes for construction aggregates. Dust and sludge are also generated during the operation of environmental facilities such as dust collectors and water treatment facilities. Dust and sludge with high iron (Fe) content undergo separate processing and are reused as raw materials for iron and steel making. POSCO strives to develop new recycling technologies and improve relevant processes for incinerated or landfilled byproducts that are difficult to recycle.

\* Clinker: Cement raw materials such as limestone, which are calcined at high temperature and become cement when pulverized

\*\* PosMent: A type of slag cement that uses a stimulant developed by POSCO to increase slag content up to 58% and improve product performance

## Biodiversity

POSCO has continuously worked on the sea forest cultivation project to restore the marine ecosystem. Steel slag, the main material of Triton, has high content of minerals such as calcium and iron, which are useful for marine ecosystems. POSCO has developed an artificial reef, Triton, and installed Triton reefs in coralline flat areas to promote the growth of plankton and the adhesion of algae spores, which in turn helps restore the marine ecosystem. To date, more than 7,000 Triton reefs have been installed along the coastline affected by the whitening in Korea. The achievements of the sea forest cultivation activities have been introduced in major Korean and foreign institutions such as Boston College, and been hailed as a best practice in Corporate Citizenship.

## Environmental Training

POSCO runs a variety of training programs to strengthen the environmental management of its steelworks. In 2021, we provided in-depth group training on environmental regulations and key risk prevention for on-site managers at the steelworks. We have newly established an e-learning program, “POSCO's Environmental Management Made Easy” for junior level employees, to improve their understanding of environmental management at the steelworks. Moreover, through weekly labor-management joint committee activities, we strive to improve practical management by sharing information that requires focused management across each environmental field with site employees at the steelworks.

Details of activities	Subjects	Training performance (2021)
ISO 14001 Internal Auditor, Working Level Manager Training Program	Supervisors for each worksite	April and June (197 persons)
In-depth training on environmental management for on-site environmental managers	Site manager and environment manager	August (214 persons)
Steelworks environmental management: e-learning program	All POSCO's general employees	May-December
Environmental training for new employees	New recruits	All times
Partner environmental management training	Senior management and executives at partner companies	June (27 companies)

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Stakeholder Communication

POSCO transparently communicates the detailed results of the company's environmental management activities to its employees, as well as to external stakeholders such as local communities and NGOs. To closely share all environmental issues, POSCO regularly conducts joint labor-management committee activities for all of its employees. To continuously communicate with the local communities on environmental issues, the two steelworks are active members of the Pohang City Council for Sustainable Development and the Gwangyang City Council for Sustainable Environment, respectively. By launching an industry-academia-research environmental consultative group with academia and research institutes, POSCO is working to find a role that suits the changing environment. In June 2021, POSCO signed the joint Clean Gwangyang Clean-Road Agreement with the City of Gwangyang, Gwangyang Steelworks and our partners. Under this agreement, we work on reducing local fine dust by cleaning roadsides with water wagons and vacuum vehicles. We also provide environmental and energy consulting for small local businesses, business partners and social welfare facilities.

Environmental consulting support

Environmental Consultation Supporting Group

On February 1, 2021, POSCO launched the Environmental Consultation Supporting Group (hereinafter the Support Group). The Support Group identifies and articulates the causes of the odor problem within the Pohang Steel Industrial Complex and provide solutions in cooperation with the Environment, Equipment, and Procurement Departments, the Pohang Institute of Industrial Science and Technology (RIST) and the city of Pohang. The Support Group's top priority is to resolve the odor problem within the Pohang Steel Industrial Complex. The city of Pohang has been making its own effort to solve this problem by investing in waste gas incineration facilities for major odor-emitting worksites at the Steel Industrial Complex, but the effect was limited. Therefore, the Support Group is working to solve problems by using the diverse facility operational knowledge and environmental improvement technology of the steelworks. First, the Support Group formed a working-level consultative group involving city of Pohang and 14 companies that operate major odor-emitting worksites on February 26, 2022. The Support Group selected companies in need of intensive improvement by analyzing the status of each business site, and regularly monitors and shares the progress of the improvement

activities. Through regular on-site surveys that included visits to each business site to conduct odor measurement, the odor-generating raw materials (binder and paper sludge, etc.) and odor-causing substances (NH3, TVOC, etc.) were comprehensively identified. Afterward, technical diagnosis was conducted for the prevention facilities (dust collectors, etc.) and the combustion facilities that collect and remove odorous substances, which helped to reduce odors, lower fuel consumption, and provide solutions to increase energy efficiency. Thanks to the Support Group's activities and efforts to reduce odors at the site, complaints have been significantly declined concerning odors from the Pohang Steel Industrial Complex in 2021. Moving forward, the Support Group will publish the Green Consulting Report summarizing its experience of such odor reduction activities, and will continue to provide them to companies requiring odor reduction efforts. While promoting the replacement of odor-causing fuel materials with byproducts of the steelmaking process, POSCO will also continue to support the resolution of the odor problem by jointly developing technologies that replace fertilizer manufacturing binders to odorless one with RIST.



Meeting to support eco-friendly consulting and activities



Biodiversity

Recognizing the importance of restoring natural ecosystems and protecting biodiversity, POSCO has carried out various activities for biodiversity to help protect the well-being of humankind and the earth. In particular, considering the nature of our business of operating seaside steel mills, we focus on marine ecosystem conservation and restoration activities such as surveying marine water pollution levels, creating sea forests and collecting marine waste. Furthermore, in June 2022, POSCO joined TNFD\*, a consultative body for the disclosure of financial information related to nature and expressed its commitment to protecting biodiversity.

\* Taskforce on Nature-related Financial Disclosures

Protection of marine ecosystem

POSCO uses slag to make the TRITON reef, which is installed in the ocean to restore marine forests. TRITON reefs are high in iron and minerals, which promotes the growth of marine plankton and the attachment of algae spores. In addition, POSCO carries out research on 'Blue Carbon', which refers to carbon captured and stored by the Triton reefs when marine algae take up atmospheric CO<sub>2</sub>. Furthermore, we have been promoting the fry release activities since 2009 together with local environmental groups. To mark the Marine Day on May 31 each year, 350,000 black sea bream fry were released from 2017 to 2021. The Clean Ocean Volunteer Group, an employee volunteer group for marine cleanup activities, collected 1,969 tons of marine waste through a total of 706 activities until 2021.



Forest restoration and the creation of green spaces

As part of its efforts to help protect and conserve the natural ecosystem of the local communities and a pleasant working environment, POSCO is dedicated to greening the areas near its workplaces. When we founded the steelworks, we made efforts to create green spaces under the slogan of “steelworks in the park.” For Pohang and Gwangyang Steelworks, a total of KRW 69 billion has been invested in landscaping and greening projects over the past 5 years. Since 1997, we have managed a tremendous forest in the steelworks by creating an ecological forest of about 9,900 m<sup>2</sup> at both steel-byproduct landfill. The environmental ecological forest has become a place for ecological restoration research, as it has been established as a habitat for various plants (milkweed and lime trees, etc.), animals (red squirrels and wild migratory birds, etc.), and insects.





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**POSCO**  
**CORPORATE CITIZENSHIP**  
**REPORT 2021**



# Society

## We are at the forefront in addressing social issues and making society better

We take a leading role in confronting social challenges at the corporate level, with a sense of empathy. We carry out activities for the common good for the development of local communities and environmental protection. We actively participate in philanthropy as part of our commitment to sharing with our neighbors and society.

- Among the principles of the POSCO Charter of Corporate Citizenship -



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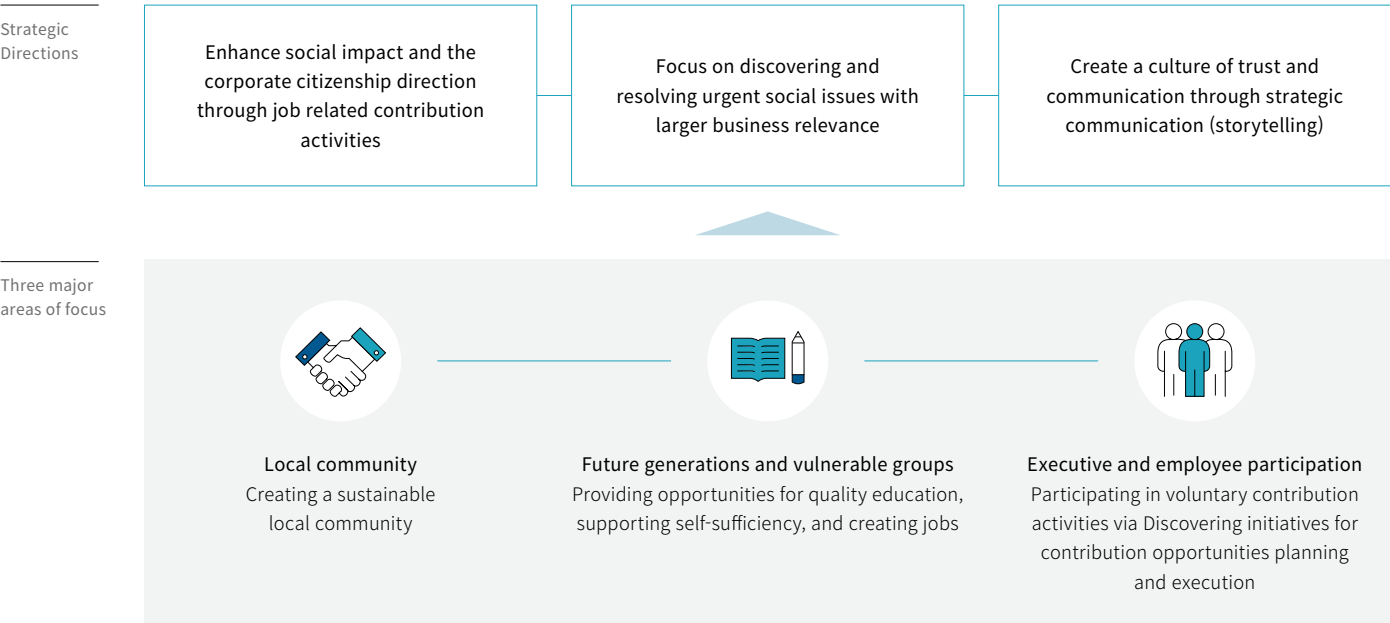
# Co-prosperity with Stakeholders

## Social Contribution

### Genuine Efforts for Regional Development

Based on the management philosophy of “Corporate Citizenship: Building a Better Future Together,” POSCO has worked actively to resolve the diverse issues faced by local communities. To create a social impact, all POSCO employees have participated in social contribution activities through a systematic and creative approach.

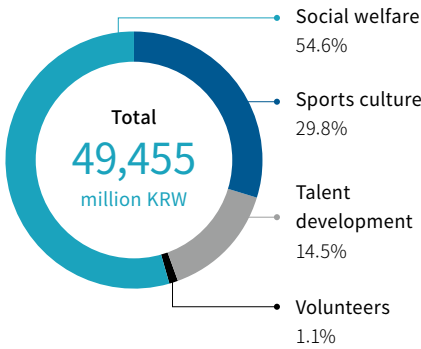
### Strategic Directions and Focus Areas



### Local Community Highlight in 2021

#### POSCO Social Contribution Expenditure

Social contribution expenditure of POSCO consists of social welfare, sports culture, talent development, and volunteer expenses and is managed in accordance with the standard set by Federation of Korean Industries. We are also disclosing fund details of donations, community investments, and others (Commercial Initiative) since 2013.



Community Chest of Korea - Donations for neighbors in need

KRW 10 billion

(POSCO: KRW 8 billion; Group companies: KRW 2 billion)

Executive and employee volunteer activities  
(total cumulative hours in 2021)

296,729 hours

Average volunteer activity per person, per year

16.0 hours



### Local Community

Based on its long-term relationships with the local communities in which it operates, POSCO continues to fulfill its social responsibilities to its local communities by performing various contribution activities.

Name of Activity	Key Content	Key Activities in 2021-2022	Operational Performance in 2021
Sisterhood Villages	<ul style="list-style-type: none"> <li>Began in Hagwang Village, Gwangyang in 1998</li> <li>One department is twinned with one Sisterhood Village, regular connected activities performed</li> </ul>	<ul style="list-style-type: none"> <li>Purchase of regional food specialties, assistance in seasonal farming labor</li> <li>Village facility repairs</li> <li>Environmental cleanup activities</li> </ul>	<ul style="list-style-type: none"> <li><b>205</b> sisterhood villages (123 in Pohang, 82 in Gwangyang)</li> </ul>
Soup Kitchens	<ul style="list-style-type: none"> <li>Established in Pohang and Gwangyang in May 2004</li> <li>Supported operating expenses, such as food and facility costs, for soup kitchens</li> <li>Meal service with participation of employees</li> </ul>	<ul style="list-style-type: none"> <li>Provided meal kits to resolve undernourishment issues related to soup kitchen closures due to COVID-19</li> <li>Donated rice through funds raised by employees for neighbors in need</li> </ul>	<ul style="list-style-type: none"> <li>Operated 5 soup kitchens (3 in Pohang, 2 in Gwangyang)</li> <li>Provided operating expenses totaling KRW <b>486</b> million (Pohang: KRW 225 million, Gwangyang: KRW 261 million)</li> </ul>
COVID-19 Aid Activities	<ul style="list-style-type: none"> <li>To aid medical staff who are exhausted due to accumulated fatigue from the prolonged COVID-19 crisis and thank hospital employees for their hard work on holidays, a letter of thanks and a gift set containing dietary supplements were delivered to hospitals treating COVID-19 in Seoul and its nearby cities, Pohang, and Gwangyang.</li> <li>Considering the rapidly decreasing number of blood donors due to the prolonged COVID-19 crisis and the increasing difficulties with the blood supply, employees actively participated in blood donation campaigns and contributed to resolving the blood supply shortage.</li> </ul>	<ul style="list-style-type: none"> <li>Delivered thank-you letters and gift sets</li> <li>Many employees regularly donated blood, with some employees having donated blood over 200 times.</li> </ul>	<ul style="list-style-type: none"> <li>Over <b>300</b> employees handwrote thank you letters and delivered <b>3,000</b> gift sets.</li> </ul>
Installation and Donation of Spacewalk at Hwanho Park in Pohang	<ul style="list-style-type: none"> <li>Created the largest art installation in Korea, "Space Walk," with world-class artists Mutter and Gentz, to make Pohang Hwanho Park a famous landmark for which POSCO donated KRW 20 billion in 2001.</li> <li>Walking along the 333-meter-long steel structure track, one can appreciate the surrounding scenery including Hwanho Park, Pohang Steelworks, Yeongilman Bay and Yeongildae Beach, contributing to the vitalization of local tourism.</li> </ul>	<ul style="list-style-type: none"> <li>At the end of March 2022, a photo and video contest was held with visitors to commemorate the site becoming a landmark</li> </ul>	<ul style="list-style-type: none"> <li>Production and installation completed with an investment of KRW <b>11.7</b> billion</li> </ul>
Culture and Arts	<ul style="list-style-type: none"> <li>Operated a history museum, art gallery and art halls in Pohang and Gwangyang, with complimentary performances and exhibitions for all local residents</li> </ul>		<ul style="list-style-type: none"> <li>Visitors to POSCO PR Hall (Park 1538): <b>19,452</b> people</li> <li>Visitors to POSCO History Museum: <b>16,395</b> people</li> <li>Number of exhibitions held at POSCO Museum of Art: <b>6</b> exhibitions</li> </ul>



Volunteer activities for sisterhood villages  
– Assistance during the farming season



Expressing gratitude and presenting gifts  
for medical workers



Space Walk at Pohang Hwanho Park

Future Generations & the Vulnerable

To provide high-quality educational opportunities for children and youth in the local community, POSCO has established and operated elementary, middle and high schools. We also offer a scholarship to the young talents who will become the leaders of our future society. By providing stable jobs to the vulnerable, POSCO helps them to become active members of society through reinforcing their self-sufficiency.

Name of activity	Key Activities	Operational Performance in 2021
Beyond (College student volunteer group)	<ul style="list-style-type: none"> <li>In 2021, entering the post-COVID era, this was converted into a domestic program for farming and fishing villages facing social issues in Korea including low fertility, aging population, and polarization between cities and provinces.</li> <li>For Damupo Whale Village located in Pohang, the Beyond members directly planned and executed a regional revitalization project to regenerate the village with experts.</li> <li>Implemented a public art project that recycled materials, such as plastic waste and marine waste, to recognize the seriousness of marine debris problem and promote the need to reduce the use of disposable products.</li> <li>Through contact-free camps using the metaverse, the Beyond campaign was conducted with food packed without using disposable containers at restaurants and plogging to pick up street garbage with friends or family.</li> </ul>	<ul style="list-style-type: none"> <li>Beyond members (cumulative): <b>1,463</b> (domestic: 1,340, overseas: 123)</li> </ul>
Social Enterprise (POSCO Humans)	<ul style="list-style-type: none"> <li>Launched POSCO Humans in January 2013 after establishing the first domestic 'Subsidiary-type Standard Workplace for the Disabled (POSWITH)*' in December 2007</li> <li>* Subsidiary-type Standard Workplace for the Disabled (POSWITH): The system introduced to provide stable employment opportunities to severely disabled people, who have difficulties in securing employment in a competitive labor market. This fulfills POSCO's duty in accordance with the Act on the Employment Promotion and Vocational Rehabilitation of Persons with Disabilities.</li> <li>Selected as "the educational institution for improving awareness of disabled in the workplace" in April 2021. Presented a new momentum to our society's awareness on the disabled through training instructors (13 people), who delivers improving awareness of the disabled in the workplace.</li> <li>Operating various educational programs, such as job applications, self-reliances, lifelong education, and cultural leisures, etc., in order to strengthen the ability of disabled employees as well as the systems of supporting disabled employees</li> <li>Systems to Support for Disabled Employees               <ul style="list-style-type: none"> <li>- Subsidize lease payments and provide funds for devices like hearing aids and artificial legs for the employees with less than one year of employment for theri stable work performances</li> <li>- Recognize up to 8 hours of work per month when the disabled employees are in need of medical treatments, and recognize up to 16 hours per month when hemodialysis treatments is needed</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Locations of worksites: Pohang, Gwangyang, Seoul, Songdo (Incheon)</li> <li><b>317</b> disabled employees out of a total of 666 employees (<b>47.6%</b>)</li> </ul>



Beyond, a university student volunteer corps



POSCO Humans, a social enterprise



POSCO TJ Park Award

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Name of activity

Key Activities

Operational Performance in 2021

POSCO TJ Park Foundation

- The POSCO TJ Park Foundation, which began as the Steelmaking Scholarship Foundation in 1971, operates various scholarship programs such as the POSCO TJ Park Award, POSCO Asia Fellowship, POSCO Science Fellowship, and POSCO Youth Fellowship to foster talents for the Asia region as well as the local community.
- Main projects of the POSCO TJ Park Foundation

POSCO TJ Park Award	- Awarded across four fields that reflect POSCO’s founding spirit	- Cumulative total of 52 recipients (Science Award, Service Award, Education Award, Technology Award)
POSCO Asia Fellowship	- Asian Students Studying in Korea Scholarship (since 2005) - Scholarship for local university in Asia (since 2005) - Asia Opinion Leader Fellowship (established in 2019)	- Cumulative total of 445 applicants from 33 countries - Cumulative total of 5,186 applicants from 33 universities, 19 countries - Cumulative total of 20 invited trainees from eight countries
POSCO Science Fellowship (2009-)		- Cumulative total of 420 applicants
POSCO Youth Fellowship	- POSCO Vision Scholarship (2006-) - POSCO Heroes Fellowship (established in 2019) Support for upstanding citizens, or upstanding citizens' children * With POSCO Lighthouse Scholarship (temporary scholarship for overcoming COVID-19) - 251 scholarships for high school students in Pohang and Gwangyang	- Cumulative total of 487 scholarships for - college students in local communities - Cumulative total of 46 applications  - 251 students applying for scholarships in Pohang and Gwangyang

POSCO Educational Foundation

- Launched in 1971, the Foundation operates a total of 12 schools, from kindergarten to elementary, middle, and high schools, including six schools in Pohang, five schools in Gwangyang, and one school in Incheon.
- Each student’s skills and aptitude are identified in kindergarten and elementary school and managed until high school for 13 years.
- Contributed to fostering future talents by cultivating future leaders with the global perspective needed in this era of globalization, who can fulfill their responsibilities and roles as members of society.

- **546** beneficiaries / cumulative number of beneficiaries: **12,733**



POSCO Asia Fellowship



POSCO Youth Fellowship



POSCO Educational Foundation



## Participation of Employees

POSCO employees have actively engaged in volunteering and sharing through systematic contribution activities. In particular, the ‘talent volunteering’ activities, which utilize the employees’ personal job skills and special abilities, provide practical help for the local community and make the volunteers gain self esteem and feel accomplished. In 2021, POSCO operated a total of 104 talent volunteer groups in Pohang, Gwangyang, and Seoul.

Talent Volunteer Groups	Key Details of Activities	Cumulative number of volunteers as of 2021
Multicultural Friends Volunteer Group	<ul style="list-style-type: none"> <li>Supporting multicultural weddings and adaptation to Korean culture through mentoring</li> <li>Operating various cultural exchange programs including cooking classes for married migrant women and children, Korean traditional music classes, and opportunities to attend sports events</li> </ul>	994people
Woodcraft Volunteer Group	<ul style="list-style-type: none"> <li>Manufacturing and installing customized furniture to support stable residential lives for disadvantaged families</li> <li>Producing furniture through the talent of employees in the designing, cutting, assembling, and finishing stages</li> </ul>	2,046people
Cultural Assets Preservation Volunteer Group	<ul style="list-style-type: none"> <li>Cleaning the environment in and around cultural assets, and developing inherited traditional culture through their management and maintenance</li> </ul>	636people
Wall Painting Volunteer Group	<ul style="list-style-type: none"> <li>Improving the local community environment and providing emotional stability through painting and wall painting</li> </ul>	790people
Photography Group	<ul style="list-style-type: none"> <li>Taking photographs of local elders, underprivileged group family photos, and local community festivals and events</li> </ul>	194people
Culinary Volunteer Group	<ul style="list-style-type: none"> <li>Visiting vulnerable individuals at local children’s centers and disabled person’s welfare facilities and offering handmade bread, refreshments, and side dishes</li> </ul>	662people
Musical Talent Group	<ul style="list-style-type: none"> <li>Performing with band at local community events and when visiting disadvantaged individuals</li> </ul>	365people
Landscaping Volunteer Group	<ul style="list-style-type: none"> <li>Pruning welfare facility and public facility trees, trimming shrubs, and planting flowering trees</li> </ul>	594people
House Repair Volunteer Group	<ul style="list-style-type: none"> <li>Visiting vulnerable individuals’ residences and offering wallpapering, electrical repair, dustproof net replacement, and household rearrangement services to ensure pleasant living spaces</li> </ul>	1,361people
Calligraphy Volunteer Group	<ul style="list-style-type: none"> <li>Providing messages of hope and education to children, youth, and senior citizens in local communities through calligraphy</li> </ul>	1,426people
Clean Ocean Volunteer Group	<ul style="list-style-type: none"> <li>Executing marine ecosystem preservation activities with POSCO employees</li> <li>Restoring coastal and undersea environments in fishing regions near local communities</li> </ul>	1,830people
Study Guide Volunteer Group	<ul style="list-style-type: none"> <li>Supporting learning guidance for children and adolescents using local children’s centers</li> <li>Supporting growth with a positive mindset by mentoring for adolescents’ concerns and improving their intellectual abilities</li> </ul>	1,350people
Good Voice Volunteer	<ul style="list-style-type: none"> <li>Provide a voice recording book by record directly to support the learning ability and psychological stability of visually impaired and multicultural families</li> </ul>	114people
Fancy Balloon Art Volunteer	<ul style="list-style-type: none"> <li>Support various social care groups such as children, adolescents, youth, multiculturalism, the disabled, and the elderly with joy, emotional stability, etc. through fancy art technologies such as balloons, origami, and crafts</li> </ul>	561people
Happiness Joint Washing Volunteer	<ul style="list-style-type: none"> <li>Provide integrated home welfare services such as collecting, washing, drying, and delivering futon laundry for families with disabilities and also examine the home environment</li> </ul>	428people



Bungee-ppang of Love Volunteer Group



Photography Group



House Repair Volunteer Group

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CORPORATE CITIZENSHIP


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The POSCO 1% Foundation

The POSCO 1% Foundation is a non-profit public foundation established in 2013 with donations from the POSCO Group and employees of partner companies through a voluntary 1% donation from their salaries, along with the POSCO Group's Matching Grant.<sup>1)</sup> As of 2021, 98% of all POSCO Group employees are participating in the program.

1) Matching grant: A method in which companies participate together to promote charitable donations by employees, by donating at a certain rate according to the amount of donations made by employees.



The POSCO 1% Foundation



Number of Donors in 2021

34,490

(As of end of December 2021)





Project Revenue


Total KRW 10.06 billion


(As of 2021, executive and employee donations, company matching, interest income, etc.)





Video of POSCO 1% Foundation  
<Encounter Becomes Art>

 <b>Future Generations</b> We support the healthy growth of future generations.	
1% Art School	A participatory culture and art program for the healthy growth of marginalized children 1,099 participants from 80 regions
Science Beyond Imagination	An experiential science classroom for local middle school students, providing opportunities to grow into talents in science through creativity development 2,773 participants for 20 science classrooms
Do Dream	Support for youth transitioning to independence from out of home cares(nursery school/group home), including financial aid for independent living, as well as academic and career support programs, such as one-on-one mentoring (Ages 18~25) 65 youth members benefited
Dream School	Online academic mentoring programs to bridge the gap in education among local middle and high school students Total of 311 participants (mentees: 215; mentors: 96)

 <b>Multicultural Families</b> We support the healthy independence of multicultural families.	
Support for Married Immigrant Women's Education	Support for obtaining academic qualifications necessary for employment, and support for examinations and basic IT education to improve basic learning ability Total of 320 people benefited
Career Support for Children from Multicultural Families	Career counseling for middle and high school students and scholarship support for outstanding university students Total of 300 people benefited (280 for career support, 20 for scholarship students)

 <b>Culture and arts</b> We support culture and arts for the underprivileged.	
Encounter Becomes Art	Support for artistic activities via collaboration between the disabled and able-bodied to popularize artists with disabilities and create new opportunities through video productions and YouTube postings to promote the artistic value of disabled artists Total of 12 teams of disabled artists participated, with cumulative views on 24 videos of 4.54 million.
Change My Town	A donor-led project where donors take interest in the community and propose and implement ideas to identify and solve community problems (local community support, flood recovery support, etc.) 49 projects total
1% Marichae (My Little Charity)	A small-scale year-end sharing program for donors, built and operated as an online donation platform in line with the COVID-19 contact-free situation, and a donation participation program where employees directly recommend and select a donation recipient Total of 150 donations, 28,533 employees participated

 <b>The Disabled</b> We support better lives for those with disabilities.	
Wings of Hope	Production and support of customized assistive devices for the disabled in local communities without government support Total of 174 people selected and benefited
Space of Hope	Support for the remodeling of public facilities for the disabled in the local community by applying a space design that enhances convenience for the disabled Total of 15 facilities remodeled, 895 people benefited
Highly Advanced Assistive Device Project for the People of National Merit	Support for advanced assistive devices for war veterans Total of 32 people selected and benefited



## Sustainable Supply Chain

## Supply chain management strategy

POSCO operates four major supply chain strategies based on its corporate citizenship management philosophy.

## The Four Major Supply Chain Management Strategies

## Fair, Transparent, and Ethical Management

- Fair and transparent transactions
- Disclosure of purchasing information
- Compliance with fair trade

## Realization of ESG Purchases

- Expansion of green purchasing
- Enhancement of responsible mineral management
- Preferential treatment for socially responsible companies
- GEM Matching Fund

## Strengthening the Supply Chain

- Technical cooperation
- Management stability
- Training and consulting support
- Welfare support

### Enhancement of Purchases Competitiveness

- Implementation of optimal value purchasing
- Strategic purchasing based on product characteristics
- Continuous discovery of excellent suppliers

## The Four Major Supply Chain Strategies and Policies

## Fair, Transparent, and Ethical Management

POSCO gives suppliers seeking to trade with the company the opportunity to apply for registration at any time, promotes fair purchasing policies (disclosure of transaction information, expansion of competitive purchasing, etc.), and discloses 100% of sourcing group (purchasing product group) information. To prevent any unfair insider trading, POSCO also operates the Insider Trading Review Committee to ensure fair purchasing.

## Realization of ESG Purchases

POSCO is expanding green purchases to realize carbon neutrality. We are also promoting cooperation for hydrogen development and low-carbon and low-cost technology

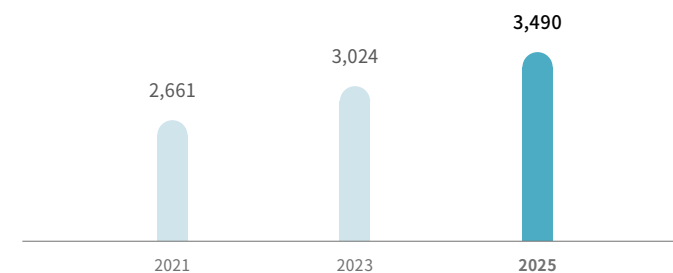
## ESG Purchasing Strategy

Declared corporate citizens as its management philosophy, POSCO leads sustainable purchases by procuring from suppliers, who have eco-friendly operation processes and fulfill their social responsibilities.

development with our overseas coal and iron ore suppliers, while pursuing systematic supply chain management activities to help address social issues related to mining such as conflicts, human rights abuses and environmental issues. To this end, POSCO is committed to practicing responsible and sustainable procurement by establishing a management system linked to the responsible minerals policy, risk management, strengthening of internal and external stakeholder competencies and external communication, among others.

POSCO has also created “GEM (Go the Extra Mile) Matching Fund” via the one-on-one matching method with its raw material suppliers to create social value. We continue to realize ESG purchases via preferential treatment of socially responsible companies and the fair trade Compliance Program (CP) certification system for suppliers.

Target amount of purchase for Green Purchasing (Unit : USD million)



POSCO has defined green purchasing products from a 3R (Recycle, Reduce, Reuse) perspective. The “Green Purchasing” method is actively adopted to utilize steelmaking by-products and waste, procure eco-friendly alternative materials and widen the use of ferrous scrap for carbon reduction.

## Strengthening the Supply Chain

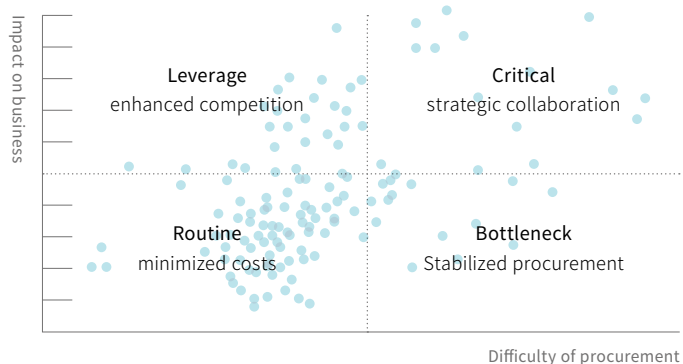
To build a stable procurement system for the supply chain, the sustainable management of our existing small and medium-sized suppliers is crucial. For this reason, POSCO promotes technological cooperation with small and medium suppliers, operates programs to support management safety and supports competency improvements through training and consulting.

※ Refer to [Shared Growth] (page 67) 

### Enhancement of Purchase Competitiveness

POSCO continues to establish a stable and sustainable supply system and enhance its competitiveness by purchasing based on TCO from an optimal value perspective in consideration of the overall costs, including environmental costs, maintenance costs, quality costs and logistics costs. We are securing purchasing competitiveness by identifying excellent suppliers with whom we can build a robust supply chain and implement purchasing strategies that reflect the characteristics of each product.

### Purchasing Strategies by Item Characteristics



## Supplier Code of Conduct

In June 2010, POSCO announced the POSCO Group Supplier Code of Conduct to embody its vision for all partners to fulfill their duties as global corporate citizens. The code of conduct is comprised of seven sections and 49 clauses, with basic categories such as environment and human rights, shared growth, fair trade and quality management as stipulated by the RBA (Responsible Business Alliance). All suppliers trading with POSCO are required to agree to the Supplier Code of Conduct.



POSCO Group Supplier Code of Conduct

## Supplier Code of Conduct Summary



## Respect for Human Rights

- Voluntary employment
- Prohibition of child labor and discrimination
- Comply with working hours
- Wages and benefits
- Humane treatment and prohibition of discrimination
- Freedom of association



## Health and Safety

- Occupational Safety
- Emergency response measure
- Hygienic working environment, education



## Environment

- Environmental license
- Prevention of pollution and reduction of resource use
- Material regulation



## Ethics and Fair Trade

- Business integrity
- Prohibition of unjust enrichment
- Intellectual property protection



## Management System

- Duties and responsibilities of management
- Regulations and customer requirements
- Audit and evaluation/  
procedure for corrective action



## Shared Growth and Social Contribution

- Shared growth
- Social contributions



➤ Quality management

- Strengthening quality control in the supply chain

## ESG Risk Management for the Supply Chain

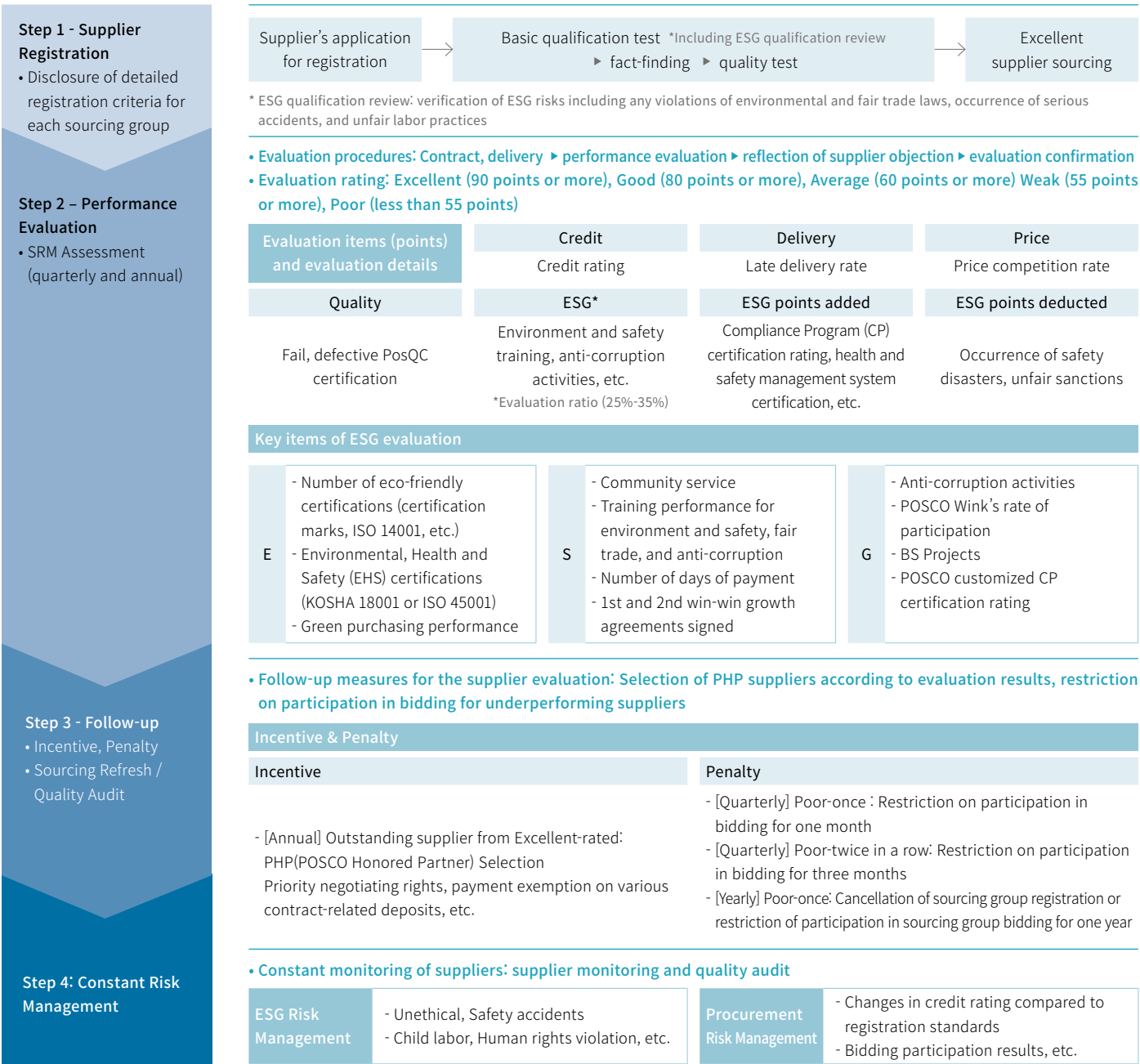
To build a robust supply chain system, POSCO operates the ESG risk management process from supplier registration to performance evaluation, along with follow-up management of contractual performance.

### Supplier Registration

POSCO operates the ‘Sourcing Group,’ an item unit that considers the supply market of purchased goods, product characteristics and contract convenience, and makes the detailed registration standards for each sourcing group available at all times. To register with the Sourcing Group, suppliers must agree to the Code of Conduct and the Special Ethics Terms and Conditions. As for ESG items, the hurdle system is applied, and thus if there is even a single violation, such as in terms of environmental laws, major accidents, unpaid wages or non-payment of taxes, registration will not be completed. Basic qualifications such as credit rating, financial capability and supply capacity are reviewed once this requirement is satisfied. POSCO then visits the supplier site in person to conduct a fact-finding survey, and if needed, selects excellent suppliers through the quality tests.

### Supplier Relationship Management (SRM)

POSCO implements Supplier Relationship Management (SRM) to evaluate the sustainability of its suppliers. The evaluation criteria include credit, delivery date, price, quality, ESG and more. Suppliers with a previous trade history with POSCO are subject to evaluation. Since 2021, POSCO has improved the ESG items that include three in the “Environmental” area including green purchasing performance, four in the “Social” area including social service activities, and four in the “Governance” area including participation in POSCO Wink, which increased the ratio from 15% to 35%.



Also, we are managing our supply chain based on the assessment grades. The 3-grade system has been expanded to 5-grade system with "Excellent, Good, Average, Weak and Poor" since 2021.

## Supplier Evaluation Follow-up Management

POSCO publishes quarterly and annual reports for SRM evaluations of suppliers. POSCO Honored Partners are specially selected among the Excellent-rated suppliers and offered preferential treatments such as price preference and contract deposit payment waivers. Suppliers with a rating of Poor are required to submit an action plan for improvement of their shortcomings. Suppliers who continue to show a lack of improvement are restricted from participating in bids for a period ranging from three months to one year. Based on the evaluation results, POSCO provides feedback on suppliers' strengths and weaknesses and offers opportunities for improvement while continuously managing ESG risks to the supply chain through regularized evaluations.

## Constant Risk Management

To establish a strong and efficient supply chain system, we continuously monitor our registered suppliers, and apply sanctions and measures to discontinue transactions with suppliers posing serious ESG risks in areas such as environmental issues, corruption, and safety incidents. Under this framework, we imposed sanctions against 62 companies in 2021. In addition, we reinforce the purchase of mined minerals in a manner that respects human rights and the environment, fulfilling a social responsibility (refer to “Responsible Minerals,” page 69). We also cancel registration for suppliers who do not have a sufficient credit rating (less than a B rating) compared to the sourcing group registration standards, have not participated in bidding for the past year, or have not traded for two years. In 2021, we canceled 167 companies based on our monitoring.



## Procurement Risk Management

Due to concerns regarding business risks arising from the increase in global supply chain instability, such as the semiconductor supply and demand crisis and export restrictions in China, we established a response strategy that includes diversification of supply lines. We have made a customized response plan for each cause of risk. Where a single country is used for sourcing, we find new supply lines to at least 2-3 countries and reduce relevant risks through the localization and development of alternatives. Agendas were set for the reinforcement of supply lines for 26 raw materials and other materials, and 3 of these agendas were completed in 2021, including for urea water, ammonia water, and Fe-Si #2 LC. In 2022, the remaining 23 tasks including sodium bicarbonate and phosphoric acid are targeted for completion. In consideration of the recent changes in the global environment, we are continuously working to reduce procurement risks by reviewing alternative options for items that are highly dependent on a single country.

## Supply Chain's ESG Assessment Results

Classification			Unit	2019	2020	2021
Subject	Primary Supplier	Total Suppliers <sup>1)</sup>	Count	1,484	1,398	1,703
		Critical Tier 1 <sup>2)</sup>	Count	136	136	135
	Secondary Supplier	Critical Non-Tier 1 <sup>3)</sup>	Count	33	42	43
	SRM Evaluation Ratio		%	100	100	100
Assessment Results	Excellent		Count	167	275	216
	Poor (high-risk group)		Count	87	60	15
Follow-up Measures	Ratio of companies rated Poor with improvement plans		%	91	100	100
	Ratio of improved suppliers after the implementation of self-improvement plans		%	29	50	70

1) All suppliers with their transaction records from the previous year

2) Suppliers classified under “Critical” sourcing group according to the “Purchasing Strategy by Item Characteristics” among the suppliers engaged in direct transactions with POSCO

3) Suppliers of items with relatively high importance among the secondary suppliers

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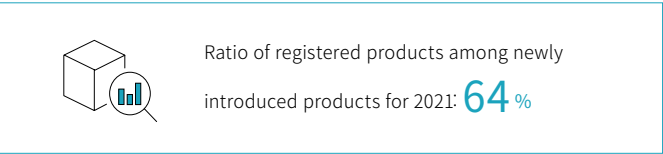
## Shared Growth

### Re-emergence of the best shared-growth company in line with internal and external conditions

As a recognized leader in shared growth, POSCO strongly believes that all participants in the industrial ecosystem can create positive financial outcomes and greater value of co-prosperity when they have significant competencies. Even though uncertainties are expanding throughout the industry due to rapid changes, POSCO is seizing crisis as an opportunity to present new milestones for shared growth, taking another leap forward with everyone.

#### Open Sourcing (e-Catalog)

“e-Catalog (mrocatalog.posco.co.kr)” is a smart communication channel which has been developed to ensure that suppliers can conveniently and freely promote their products without visiting the steelworks, regardless of their existing transactions. This system aims to provide a fair opportunity for suppliers by offering a platform to introduce their products. In addition, the system aims to establish a transparent purchasing environment while optimizing the product specifications by discovering and introducing excellent new products and alternatives for POSCO departments. In 2021, 14,398 items were introduced, of which 9,286 items were registered as available for purchase.



#### Fair and Timely Payment

To promote cash liquidity and ease the financial burden on suppliers, POSCO has paid all small and medium suppliers in

cash upon delivery since 2004. Since 2018, POSCO has operated a number of fair-trade bidding systems (lanti-ALT(abnormally low tender) bidding, market price competitive bidding, total cost bidding, etc.) in place of the lowest-cost successful bidding system. POSCO was also the first company in Korea to introduce the “subcontracting win-win payment system.” Furthermore, in 2019 we introduced the “Preference System for Purchasing of Socially Responsible Companies” to expand transactions with companies hiring individuals with disabilities and with social enterprises, providing incentives to ensure reasonable margins and create a culture in which socially responsible companies are respected, while striving to lay the foundation for all members of the industry to compete and develop in an even more fair manner.

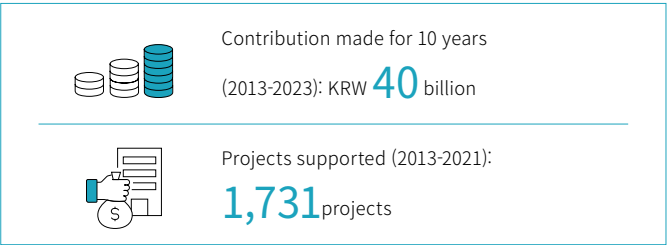
#### Benefit Sharing System

POSCO introduced a benefit-sharing system in 2004, allowing the company and its partners to work jointly on improvement projects and benefit from the results. Participants were offered a wide range of incentives such as a long-term supply contract of up to five years and a 50% cash bonus on profits made by the projects, so they can get motivation for technology development and revenue growth. This is a win-win cooperation model that can secure competitiveness through quality improvement and cost reduction. It is currently being expanded across all industries under the leadership of the government.

#### Productivity Innovation

By passing the Quick Six Sigma (QSS), a proprietary innovation methodology, on to SMEs, POSCO has operated smart capacity-building consulting that supports improving work environments and production processes and establishing the basis for process smartization. Based on such innovation capabilities, highly advanced IT is applied across the entire production process including design, manufacturing and distribution. Also, POSCO

jointly operates the “Smart Factory Construction Support Project for Co-prosperity of Large and Small Businesses” with the Ministry of SMEs and Startups to support the construction of smart factories. Regardless of whether a transaction is completed, POSCO contributes KRW 4 billion annually to the above smartization support projects, and has supported 1,731 projects as of 2021 in order to help SMEs improve their fundamental competency and productivity.



#### Corporate Citizenship Friends

Corporate Citizenship Friends is a participatory program through which POSCO and its partner companies work together to perform various contribution activities to practice its corporate citizenship management philosophy in the local community. POSCO seeks to achieve greater satisfaction for both participants and beneficiaries by breaking away from simple performative volunteer activities and organizing the kinds of activities that take into account the current needs of the vulnerable and local communities. In 2021, POSCO worked with 1,100 employees of its partner companies to improve classroom air quality and support recovery from forest fires in Gangwon-do, support small business owners in traditional markets and underprivileged children, and support busking performances for local artists who had lost their stages due to COVID-19.



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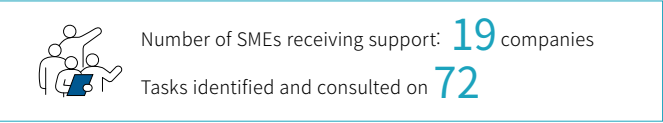
POSCO Youth Dream Job Matching

By utilizing its education and training infrastructures, POSCO provides the practical education and training required for job performance to young job seekers. In addition, we operate an employment support program that links job seekers to immediate recruitment by SMEs. The Win-Win Job Program for Large and Small Businesses and the POSCO Employment Academy for young job seekers are included in this program. In addition, with the purpose of smartization, POSCO simultaneously resolves youth job issues and the job shortage of local SMEs by providing subsidies for hiring graduates of four-year engineering schools.



Shared Growth Consulting Section

Newly launched in 2021, Shared Growth Consulting Section is a consulting organization dedicated to SMEs in which experts with an average of 25 years of experience across various fields of POSCO serve as consultants. The Consulting Section provides expert competencies and know-how in four areas (smart factory construction, ESG management support, facility and process efficiency improvement, and technology sharing and innovation support) and difficulties of SMEs such as securing a new workforce, the lack of technological development capabilities and other needs of each company are addressed by extending customized consulting support. In 2021, the first year of the Consulting Section's launch, seven consultants from the Consulting Section's visited the sites of 19 SMEs 250 times to identify and consult on 72 tasks.



Eight Renewed Programs for Shared Growth

To respond to the rapidly changing internal and external environments, POSCO has devised three improvement plans for ① promoting group-level integrated shared growth, ② upgrading notable programs for shared growth and ③ strengthening communication with internal and external stakeholders. We have also reorganized seven major programs into eight.

\* Of the existing seven major programs, e-Catalog has been stably established and shifted toward business leadership.

The Eight Renewed Programs for Shared Growth! Here's how they're changing!



- ① Benefit Sharing System

  - Incorporate company-wide performance sharing activities into a new type of task and revitalizing safety and environmental improvements and energy-saving tasks
  - Discover multilateral convergence tasks such as venture technology-existing suppliers to address chronic issues in the field

② Smartization Assistance for SMEs

  - Support for the improved productivity and competitiveness of the domestic manufacturing industry through cutting-edge IT and building smart factories via process intelligence and optimization based on improving the qualities of manufacturing SMEs through the transfer of Quick Six Sigma(QSS), POSCO's proprietary innovative methodology, and energy consulting.

③ Payment Protection Program for Subcontractors

  - In addition to the existing subcontract win-win payment, introduce the "Nomubi.com" system that guarantees payment, which blocks potential risks related to overdue wages

④ ESG Fund for (Domestic) Steel Industry

  - A fund established by POSCO and major Korean steel companies to provide loans of KRW 150 billion for ESG management, in areas such as safety and the environment, for SMEs in the steel industry at a below-market interest rate.
  - A maximum of KRW 1 billion per company can be recommended. Reduced interest rate of 1.43%p
  - \* Average lending rate for SMEs: 3.80%p
- ⑤ Corporate Citizenship Friends

  - Promote the expansion of a corporate citizenship culture by reinforcing timely activities such as VOC listening and recovery activities in areas damaged by fires and floods, while maintaining and expanding existing preferred activities

⑥ POSCO Youth Dream Job Matching

  - Expand the pool of affiliated companies to suppliers and customers and relax application criteria for college graduates within SMEs trading with POSCO
  - Provide a recruitment subsidy when SMEs trading with POSCO hire young job seekers majoring in science and engineering to strengthen their smart capabilities

⑦ Shared Growth Consulting Section

  - Depending on the needs of each company, provide customized consulting, such as short-term specific target consulting for three months and comprehensive consulting for over one year, and promote the expansion of effects by utilizing the capabilities of POSCO Group companies

⑧ Venture Businesses Cultivation

  - Conduct occasional venture company-group company matching, and identify and expand opportunities by shifting to process-based matching
  - Expand matching of target group companies from existing 5 companies and expand business-related items to new growth areas other than steel

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Responsible Minerals

Target Suppliers for Responsible Minerals

POSCO responsibly procures minerals from six RMAP-certified smelting plants and five RMAP-certified suppliers with the aim of strengthening the company’s responsible mineral procurement. In addition to the conflict minerals (3TG), tin and tungsten, the scope of management has been extended to include cobalt since 2020, due to human rights abuses occurring during mining.

Organization Managing Responsible Minerals

In 2020, POSCO established a Responsible Minerals Consultative Group to create a unified responsible minerals policy. With the Raw Materials Office under the Purchasing and Investment Division as its base, the ESG Group, POSCO International and POSCO Chemical are participating in the risk management group.

Responsible Minerals Policy and Supply Chain Management

POSCO uses the five-stage management framework shown on the right for responsible supply chain management.

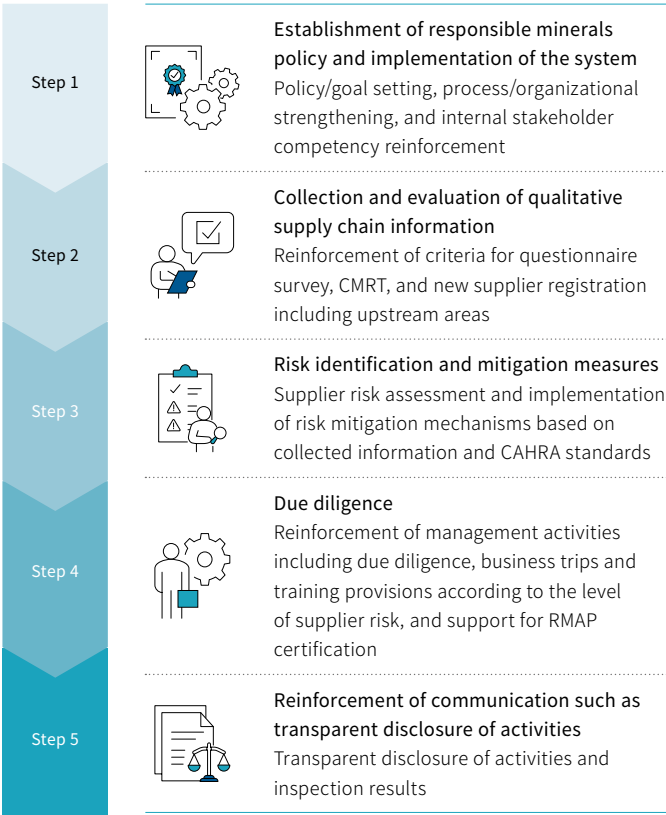
High-Risk Supplier Risk Management

POSCO has identified 211 regions in 24 countries as Conflict-Affected and High-Risk Areas (CAHRAs)\* to strengthen its supply chain management and regulations so that raw materials can only be procured from RMAP-certified smelters. Notably, information collection and risk assessments are executed from the supplier registration stage to flag high-risk suppliers and manage risks. To work with a high-risk supplier, the buyer must, through either a direct or an independent third-party

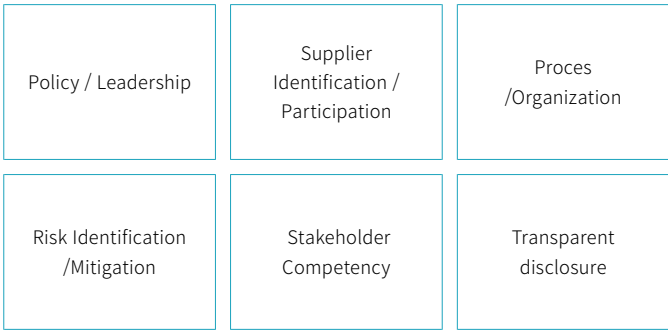
audit, detect and address any hidden risks. In addition, POSCO provides educational information on responsible minerals for internal and external stakeholders to ensure the POSCO Responsible Minerals Policy extends and is complied with throughout the supply chain.

\* CAHRAs (Conflict-Affected and High-Risk Areas): Areas where human rights risks occur frequently such as armed conflict groups funded by minerals revenue and/or child labor

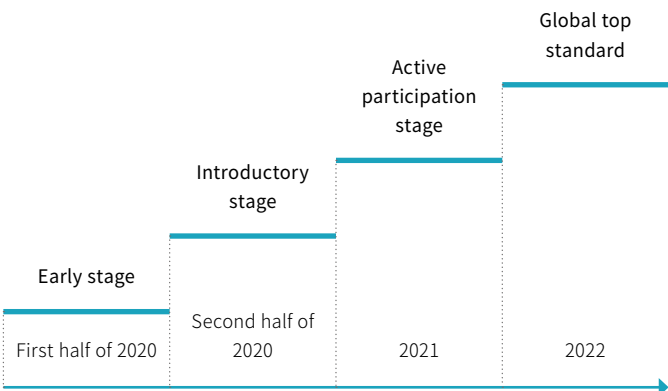
Responsible Minerals Policy Framework



Key areas of management



Responsible Minerals Management Roadmap



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## GEM Matching Fund

POSCO operates the GEM Matching Fund which promotes activities that can continuously contribute to developing local communities beyond responsible supply chain management in cooperation with its suppliers.

On top of the dictionary meaning of “jewel,” GEM stands for Go Extra Mile, which means that POSCO, as a corporate citizen, will take yet another step further for social development. Unlike simple donations, POSCO selects and uses funds for scholarships linked to mines, reforestation projects in areas affected by bush fires and educational activities for partners. The GEM Matching Fund is currently operating a total of nine funds.

The size of the GEM Matching Fund is 100,000 USD per year, and the Fund provides support for an overseas supplier and a Korean beneficiary for two years, one year in the country of the supplier and one year in Korea.

POSCO established the first fund (Opal) with the Australian company Yancoal in November 2020 and is currently running nine funds within Australia, the United States and Brazil. Funds are created with suppliers who enthusiastically implement ESG activities and expand their support for local community environment and educational projects in both countries. POSCO and the suppliers selected for the GEM Matching Fund have carried out numerous activities, including

restoring fire-damaged forests in Korea, providing vocational training and mining jobs for the Aboriginal people, supporting low-income families in Brazil with education funds and protecting biodiversity. This year, POSCO not only signed the eighth fund with Rio Tinto, Australia's largest raw material supplier, but also has expanded the scope of cooperation by signing the ninth fund with Kestrel, an Australian supplier that is smaller but actively practices ESG management. Going forward, POSCO plans to manage the GEM Matching Fund in close cooperation with its suppliers while continuously endeavoring to create the social value of co-prosperity by establishing partnerships with more suppliers.

### Operational Status of the GEM Matching Fund

Name of Fund	Supplier	Beneficiary	Activities
No.1 Opal	Yancoal	Clontarf Foundation Tree Planet	Vocational training and employment in mining for the Aboriginal people Formation of classroom forest for elementary schools in Seoul
No.2 Emerald	Xcoal	Tree Planet	Reforestation of areas damaged by Okgye Wildfires in Gangneung, South Korea Education for the underprivileged youth of mining areas in West Virginia, USA
No.3 Sapphire	FMG	Jeonnam Talent Development Foundation	Jeonnam Talent Development Education Fund Support
No.4 Diamond	Anglo American	Tree Planet	Reforestation of areas damaged by Okgye Wildfires in Gangneung, South Korea
No.5 Gold	BHP	Tree Planet	Reforestation in Pyeongchang
No.6 Tourmallna Paralba	CBMM	Brazilian NGO ASFAP and three other companies	Education funds for low-income families in Brazil
No.7 Aquamarine	Vale	Maraba Knowledge Station	Education funds for low-income families in Brazil
No.8 Pink Diamond	Rio Tinto	Leeuwin Ocean Adventure Foundation	Support for maritime safety education for indigenous children in Australia
No.9 Jade	Kestrel	Western Kangoulu Native Nursery	Education for Indigenous people, support in employment, biodiversity, land regeneration project



POSCO-Yancoal Fenced Forest  
(Daewang Elementary School and Eunno Elementary School)



POSCO-CBMM Atelie do Brincar  
(Education and employment support for low-income residents)





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CORPORATE CITIZENSHIP  
REPORT 2021



# People

2021 기업시민 포스코 컬처데이

2021. 11. 30(화) | 포스코센터 서관 4층 아트홀



We foster a happy and fulfilling workplace by creating a corporate culture based on trust and creativity

We create a safe and pleasant working environment to promote the health and wellbeing of our employees. We pioneer a corporate culture of trust and harmony through fair HR management practices and stable labor relations. We create a great workplace where diversity is respected, and a healthy work-life balance can be realized.

- Among the principles of the POSCO Charter of Corporate Citizenship -



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# Health and Safety

## Safety Management System

### Establishing Safety and Health Management System

In 2021, POSCO re-established the safety and health management system with nine elements to fulfill the manager’s duty to secure health and safety stipulated by the Serious Accidents Punishment Act. This year, we are strengthening the safety and health management system, focusing on fostering human resources to create a safety-first culture and strengthen safety expertise.

### 9 Elements of the Health and Safety Management System



### Executive’s Commitment and Objective

In August 2021, POSCO adjusted the Safety and Health Management Policy to two key policies to ensure that all employees can clearly understand and communicate the policy and to improve its effectiveness. We also read the policy aloud before all the safety meetings and safety education.

「Safety and Health Management Policy」

As a corporate citizen who develops together POSCO seeks to prevent disasters and improve health and quality of life by creating a safe and comfortable working environment for all visitors to POSCO.

To this end, we set safety and health management policies based on the following basic policies in all POSCO activities, and operate a safety and health management system to achieve them.

- Safety takes priority over any other value such as production, quality, or period. And we create environment where everyone entering and leaving POSCO can work safely and comfortably.
- In order to prevent accidents and diseases for all employees and contractors, we identify risk factors in advance and promote continuous improvement.

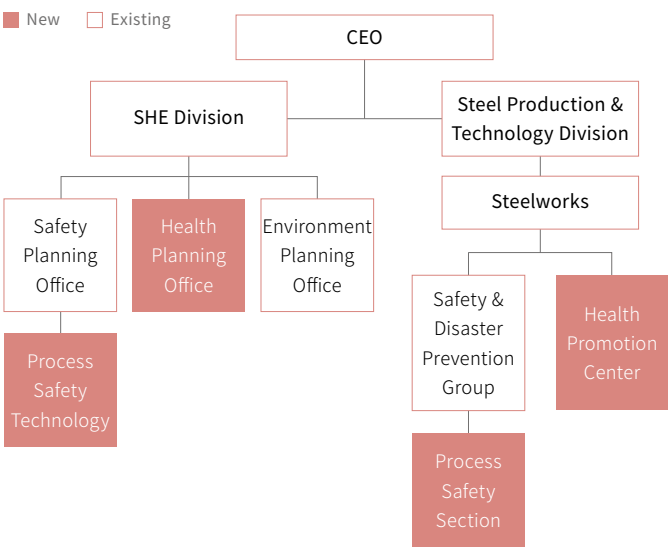
POSCO also defined the safety indicators not only the outcome indicators such as injuries but also the “process indicators” centered on behavior and execution to establish a self-directed safety culture and process-oriented performance evaluation in February 2022.

「process indicators」

- ① Safety rule compliance index: Establish a culture of compliance with laws and regulations among all employees by encouraging activities to comply with POSCO’s safety rules (6 major safety measures and 10 major iron rules)
- ② Hazard-Risk improvement ratio: Create a work environment free from potential risks by identifying harmful elements and risk factors with the participation of all members and strengthening their abilities to execute the improvement activities

### Safety Organization and Workforce

In March 2021, POSCO established the SHE Division under the CEO as a general control tower for safety and the environment. In January 2022, we also enhanced health management by establishing the Health Planning Office and the Health Promotion Center within steelworks. We also strengthened workforce and established a dedicated section to enhance the expertise in process safety. In addition to steel works, the R&D research institute and the investment engineering department in charge of investment construction have been upgraded to group-level safety management to promote tailored safety management to the characteristics of each business site.





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POSCO built an independent system for management to support on-site safety improvement in 2021. We manage health and safety budgets for safety improvement for facilities, safety management for contractors inspection and evaluation, education and training, purchase of protective equipment, and health care for workers. To further facilitate a safe worksite, POSCO allocated KRW 800 billion to its health and safety budget last year. Since 2022, a process for pre-executing the safety budget has also been in operation to support accelerated improvements against hazardous risks. As well, POSCO has enhanced the budget management through the safety budget review and analysis meetings and the Deliberation Committee.

#### Interactive Communication

POSCO has set up and operated a process for identifying hazardous risks and providing feedback after company-led rapid improvement through the participation of everyone entering the steelworks. In January 2021, the was newly established to report unsafe sites and work for improvement constantly. Throughout 2021, the “Hazard and Risk Identification Contest” was held to share and reward outstanding cases of identifying and improving hazards and risks.

To improve the working environment, POSCO receives feedback from its employees and contractors through various communication channels. The Joint Labor-Management Committee was formed at each plant to share and inspect safety activities within plants every week. Also, every month, we discuss the VOCs regarding internal safety issues with the employee representative body. We operate the Occupational Health and Safety Committee every quarter to decide on health and safety matters with the worker representatives and reinforce the review and analysis of safety activities through the Safety Innovation Committee with labor-management participation.

#### Safety Management of Contractors

Since 2021, POSCO has created the new position of a Safety Environment Director to support the efforts of partners to establish their own safety management systems and help strengthen their safety management. We also deploy safety keepers to prevent unsafe conditions or behaviors during high-risk work. We have developed and applied technologies that prevent serious accidents, such as shear-resistant safety straps for working at high altitude and automatic stop technology for forklifts using image recognition technology. In addition, we have conducted effective safety activities such as checking work information and worker status in real time by launching the comprehensive monitoring system for working status at steelworks in November 2021.

#### Compliance with Rules and Standard Procedures

In 2021, POSCO trained its managers and supervisors to enhance their competence in conducting risk assessments and arranged a safer working environment by reviewing all internal risk assessment targets and revising work standards. We plan to promote review and coaching and expert training for work-based risk management by forming a task force team to improve risk assessment quality in 2022. All employees are carrying out the following four core safety activities: 100% compliance with the standard, proper implementation of on-site TBM, execution of activities to minimize potential risks through 100% participation, and habituation of intellectual verification. In addition, we are enhancing the execution of safety activities by conducting ‘Check& Feedback’ activities through the participation of all employees including management.

POSCO has been operating all safety and health activities according to global standards. In 2021, all business sites completed ISO 45001 certification in South Korea.

#### Accident and Incident Investigation and Prevention

In 2021, POSCO improved its accident investigation capabilities and prevented the recurrence of the serious accidents through reinvestigation and addressing of the causes of major disasters in combination with off-site professional organizations (RS PLUS, Korea Occupational Safety Association). In 2022, we have raised workers’ awareness by installing warning signs where accidents have occurred. We are also making efforts to prevent similar accidents from recurring by establishing a process that promptly shares key points in the event of a disaster.

##### 「6 Major Safety Measures」

- 1

No repair or inspection of facilities during operation (including utilities)

- Approval by the Deputy Head required when necessary
- 2

Informing all workers of their right to cease work

- Notify within the safe work permit for all workers
- 3

CCTVs required in all repairs

- Use fixed/mobile CCTVs and body cameras
- 4

Approval by the Deputy Head of Works required when working at high-risk locations

- Risk Assessment results shall be attached at the time of approval
- 5

No direct delegation of safety measures to contractors

- POSCO employees shall shut off electricity, equipment and valves
- 6

No access to highly corrosion sites

- Approval of deputy director is required where entry and exit are prohibited

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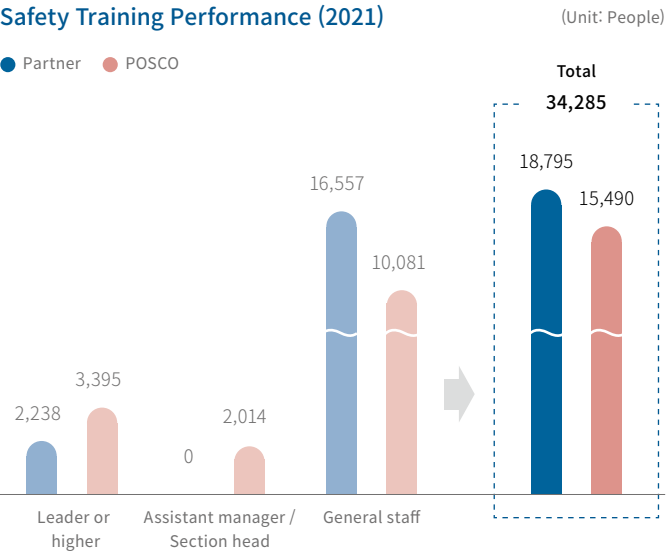
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Safety Education and Training

To increase the safety awareness of all workers at steelworks, including contractors, POSCO provides collective training and strengthens safety education through management-led safety training. POSCO also offers safety education and training to contractors who have insufficient safety training at their desired time and place by operating 'Safety Bus'. In 2022, the company-wide safety training system was completely reorganized based on the results of a safety training system assessment given by a specialized global training agency (Fidelity Solutions, September-November 2021).



Evaluation and improvement

POSCO inspects and improves the directions for health and safety activities through its monthly evaluation and analysis of safety indicators and audit results. According to the Occupational Safety and Health Act, a plan for safety and health is established every year, reported to the board of directors, and approved to faithfully implement it. In addition, the objective level of safety management is further identified through a biannual or more frequent assessment by a specialized external organization to reflect any deficiencies in the plan for improvement.



Health Management System

Health Planning Office

To create a pleasant working environment and prevent occupational diseases among its employees, POSCO has upgraded the existing Health Planning Group to the Health Planning Office that can act as a company-wide health control tower. The Health Planning Office oversees the health-related activities of the Health Promotion Center (Pohang Steelworks, Gwangyang Steelworks, and Seoul/Songdo), and has developed a company-wide health system to improve the level of employee health examinations and working environment, prevent health disorders and promote health.

Occupational Health Policy

POSCO has an occupational health policy in place in three major areas to protect employees from diseases and improve their quality of life in line with our management principle that the company is healthy only when employees are healthy.

Working Environment Management

- Establishment of Chemical substances management system based on MSDS\* system
- Measurement of working environment and improvement of harmful factors
- Prevention of musculoskeletal diseases
- Improvement of Personal Protective Equipment

Disease Prevention

- Health checkup, treatment, physical therapy, and vaccinations
- Early detection and prevention of occupational diseases
- Establishment of guidelines and standards for responding to infectious diseases, including COVID-19

Health Promotion Activities

- Improvement of lifestyles (no smoking, no drinking, workouts, and healthy eating habits)
- Management of patients with chronic health problems
- Operation of psychological counseling programs to promote mental health

\* MSDS : Material Safety Data Sheets

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Working Environment Management

As designated by the Ministry of Employment and Labor, POSCO regularly measures the level of exposure to hazardous factors in the workplace and maintains a pleasant working environment by reducing harmful elements and improving aged facilities. Specifically, we monitor the management of enclosed space within plants, personal protective equipment, and chemical substances. POSCO strives to comply with the Industrial Safety and Health Act, any notifications made by the Ministry of Employment and Labor, and all technical guidelines from the Korea Occupational Safety and Health Agency (KOSHA).

Disease Prevention

POSCO conducts annual health checkups for employees and their spouses for the early detection and prevention of injuries and diseases. To further enhance the quality of health examinations, POSCO has additionally designated a checkup facility at a higher-level general hospital starting this year. Specialized examinations for each age group are now also available to help prevent long-term diseases such as cancer. In addition, we support prompt treatment by referring employees and immediate family members to a high-level general hospital. POSCO operates an in-house medical office to provide treatment and medication, as well as a physical therapy services for those at risk of musculoskeletal diseases. These in-house health promotion facilities are fully open to all employees, including those from partner companies.

Health Promotion Activities

Though most existing health promotion activities were not conducted due to the restrictions on in-person business amidst COVID-19, the psychological counseling center has been expanded and remodeled to enhance the mindfulness program since June 2021. In addition, the number of psychological counselors has been increased from one to two to help employees with psychological stability, and the number of counseling users expanded from the employee to the families of employees and partners. We strive to improve the healthy eating habits of our employees by providing a nutritious healthy diet at the company dining hall and organizing the menu to ensure that employees can choose a diet meal to prevent obesity.

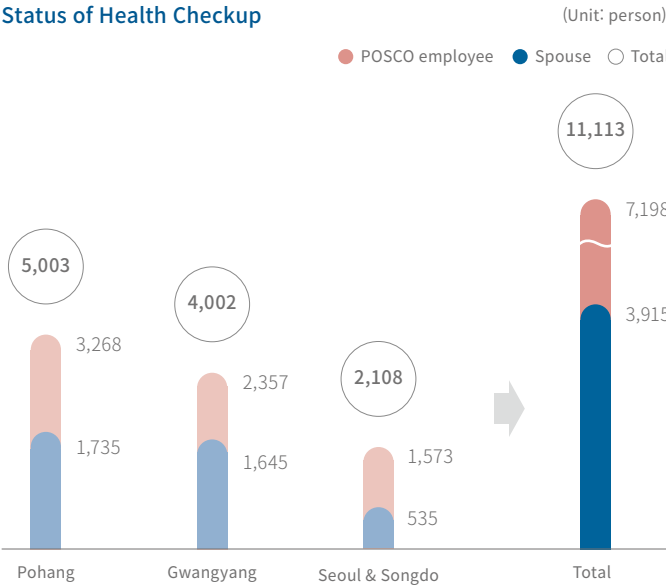
Status of Medical Use and Medication Provision/Support (Unit: case)

Category	Pohang	Gwangyang	Seoul & Songdo	Total
POSCO	33,501	22,409	6,595	62,505
Partner	2,232	1,104	-	3,336
Total	35,733	23,513	6,595	65,841

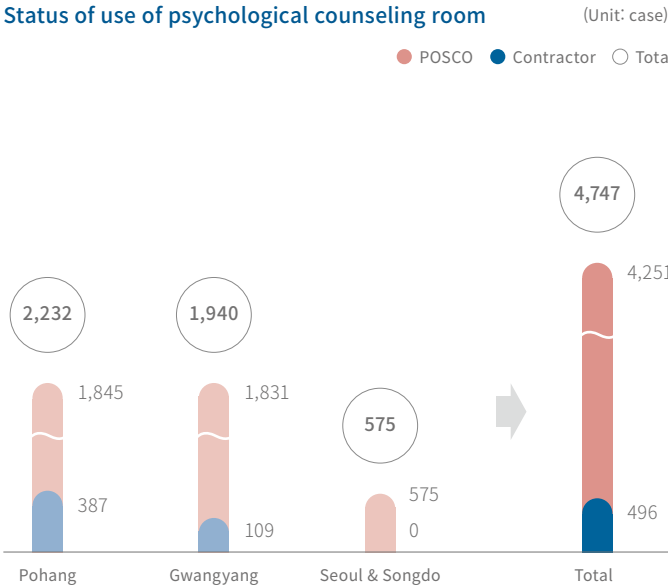
Status of Use of Physical Therapy Room (Unit: case)

Category	Pohang	Gwangyang	Seoul & Songdo	Total
POSCO	7,171	7,160	1,804	16,135
Partner	495	1,101	-	1,596
Total	7,666	8,261	1,804	17,731

Status of Health Checkup



Status of use of psychological counseling room



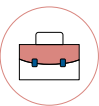
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# Great Work Place (GWP)

## Human Capital Management

### Recruitment

POSCO recruits new talent based on their knowledge and qualifications. During open recruitment, we select “creative talent with a practical and caring mindset” in consideration of our strategic direction and hiring conditions. POSCO’s hiring process is designed to judge all applicants fairly by objectively evaluating their skills and qualifications, conducting systematic screening and abiding by its standards.



- Development Through Work**
- Project/Problem-based Learning Courses (Problem-solving techniques based on project links)
  - Practice Feedforward
  - PosTube(videos)(Job know-how sharing)
  - Ongoing Work Support(Telephone-based coaching for field, customized learning, etc.)



- Development Through Network**
- Mentoring/Coaching
  - Interactive Learning Platform(On-demand mutual skill sharing)
  - Diagnostics/Feedback(Assessment Center, multi-faceted evaluation, attribute diagnostics, etc.)
  - Organizational Development and Communication Workshop



- Development Through Learning**
- Development Course(Executives, Heads of Departments, Plant Leaders, Expatriates, etc.)
  - Leadership Training (Newly hired employees to new representatives)
  - Professional Job/Digital Training
  - Mandatory/Regular Training Personalized
  - Self-directed Training
  - Domestic/Overseas Study Programs

After an initial review of their application, the prospective employee’s competence and personality are graded based on the POSCO Aptitude Test (PAT). Their first interview focuses on their job knowledge and expertise in the field of application, while the second interview assesses their personality and whether they will be a good fit for the company.

### Talent Cultivation

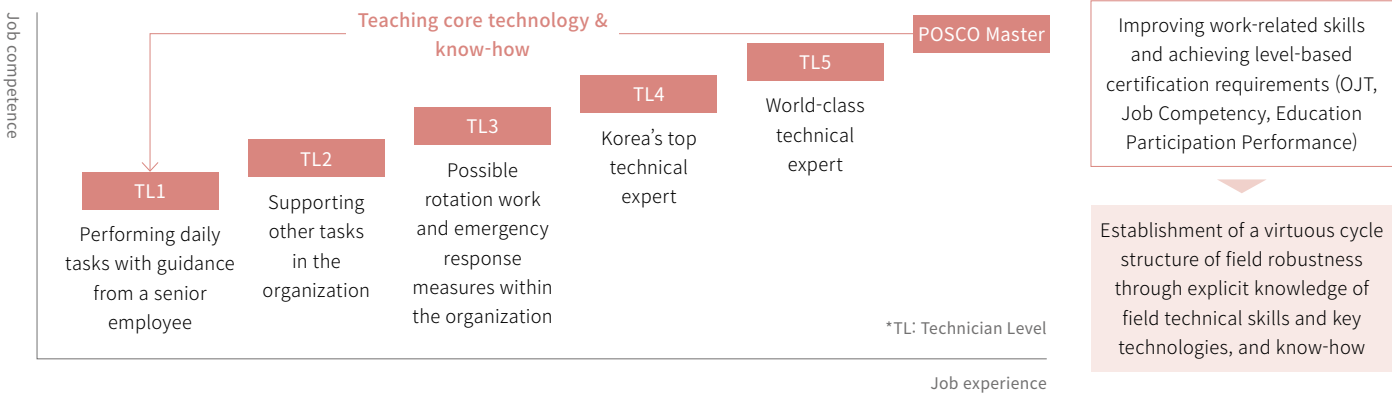
POSCO operates a variety of training programs aimed at strengthening its employees’ professional skills. These programs help individuals grow into professionals through tasks, networks and education.

### Career Development

POSCO actively supports and encourages its employees’ career development, and hopes to nurture the next generation of insightful leaders by increasing their technical expertise. Office staff and engineers can map their own career path based on the Career Development Plan (CDP), and cultivate their professionalism through work rotation. To promote this self-directed career development, POSCO allows for interviews with department heads every year and hosts quarterly internal job offers. Technical field staff are rotated within their department and given new roles periodically to help them gain additional experience and better prepare them to deal with unexpected work situations. High-performing employees are also trained in production process management to eventually become field supervisors.

### Development of Field-oriented Technical Professionals

To train our world-class field technicians, POSCO uses both the Technician Level (TL) System and POSCO Master’s System. Over time, field technicians steadily improve their TL level through various accomplishments. Their best skills are later evaluated through a screening, which eventually helps them reach the rank of POSCO Master.



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Winning the Steel Challenge

POSCO provides various training and skill instruction to strengthen the technical competency of on-site engineers. Our engineers won the final championship at the Steel Challenge hosted by the World Steel Association for two consecutive years from 2019 to 2020. In 2021, our engineers won the regional round and will advance to the global round in 2022. POSCO not only supports the participation expenses for employees but also sponsors the Steel Challenge (EUR 15,000 from 2020).

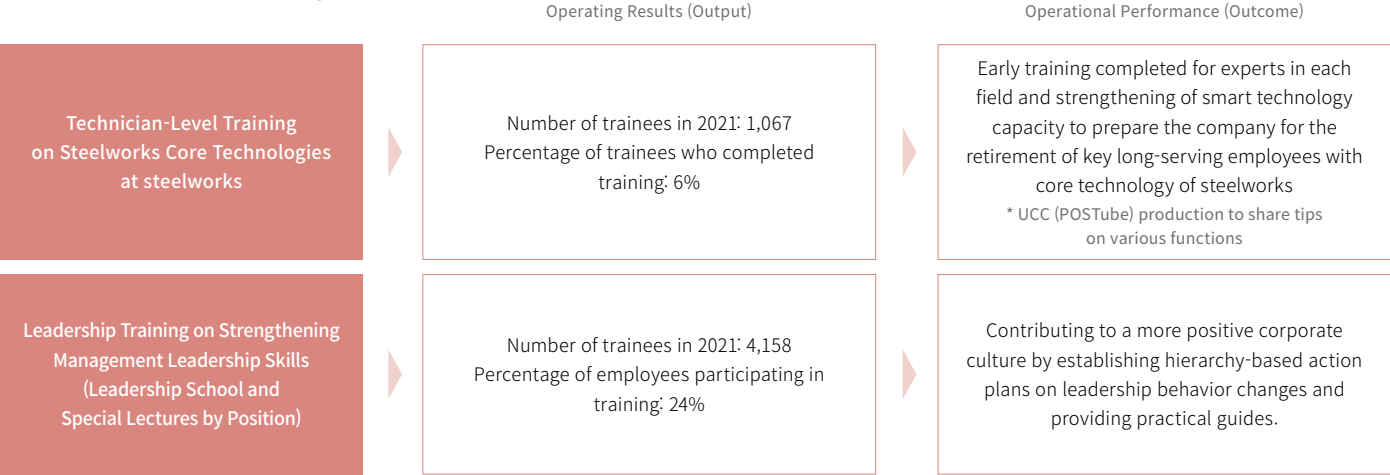
Competency Development Program

In line with changes in the work environment, POSCO is committed to fostering professionals to transfer technological knowledge. We also offer customized leadership training programs to strengthen our management’s leadership skills.

New Collar Level Certification Program

To keep pace with the era of Digital Transformation (DT), POSCO has defined its “employees who use new IT to improve work and contribute to society by creating new value” as “New Collar” talent, and is focused on fostering them. Since 2020, POSCO has implemented the “New Collar Level Certification System,” in which all employees participate. The New Collar Level Certification System offers level-based online and in-person training courses on data analysis and application. The courses are divided into four levels. Upon successfully completing a level, employees are rewarded with benefits such as promotion points and opportunities to study abroad. POSCO believes New Collar talent will be the leaders of change in the new era.

Competency Development Program



\* Leadership Training (8 courses): Leadership courses for 1) new executives, 2) new department heads or group heads, 3) new leaders or plant leaders, and 4) new section heads; 5) new leadership course; 6) supervisory leadership academy; and leadership development programs for 7) field leaders and plant leaders, and for 8) staff leaders

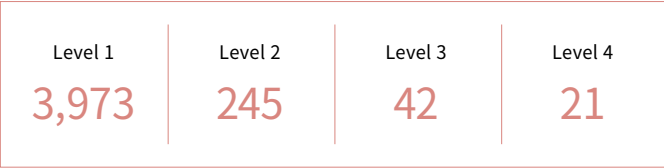
New Collar Level Certification Program

	Curriculum	Certification Requirements
Level 1 (Beginner)	<ul style="list-style-type: none"><li>• New Collar Level 1_Workbench</li><li>• New Collar Level 1_R</li><li>• New Collar Level 1_Python</li></ul>	<ul style="list-style-type: none"><li>• Pass the evaluation test after completing the Workbench, R or Python course</li><li>* Choose from group training (3 days) or e-learning (24 hours)</li></ul>
Level 2 (Semi-Expert)	<ul style="list-style-type: none"><li>• New Collar Level 2_Workbench</li><li>• New Collar Level 2_R</li><li>• New Collar Level 2_Python</li></ul>	<ul style="list-style-type: none"><li>• Pass the data analysis and coding competency certification test after completing the Workbench, R or Python course</li><li>* Choose from group training (5 days) or e-learning (64 hours)</li></ul>
Level 3 (Expert)	<ul style="list-style-type: none"><li>• AI Master’s Program Study Abroad (Selected)</li><li>• POSTECH AI Applied AI Expert Course (Selected)</li></ul>	<ul style="list-style-type: none"><li>• Completion of Level 3 curriculum and 1 Smart Task (Participation in Collaboration)</li></ul>
Level 4 (Master)	<ul style="list-style-type: none"><li>• AI Doctoral Program Study Abroad (Selected)</li></ul>	<ul style="list-style-type: none"><li>• Completion of Level 4 curriculum and 1 Smart Task (Task Leader Role)</li><li>• Completion of Level 3 curriculum and 3 Smart Tasks (At least 1 Task Leader Role)</li></ul>

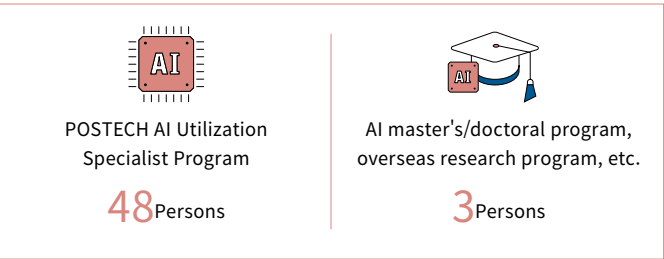


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Number of New Collar Level Certified Employees in 2021 (Unit: person)



Selection Status of AI Specialized Training Subjects in 2021

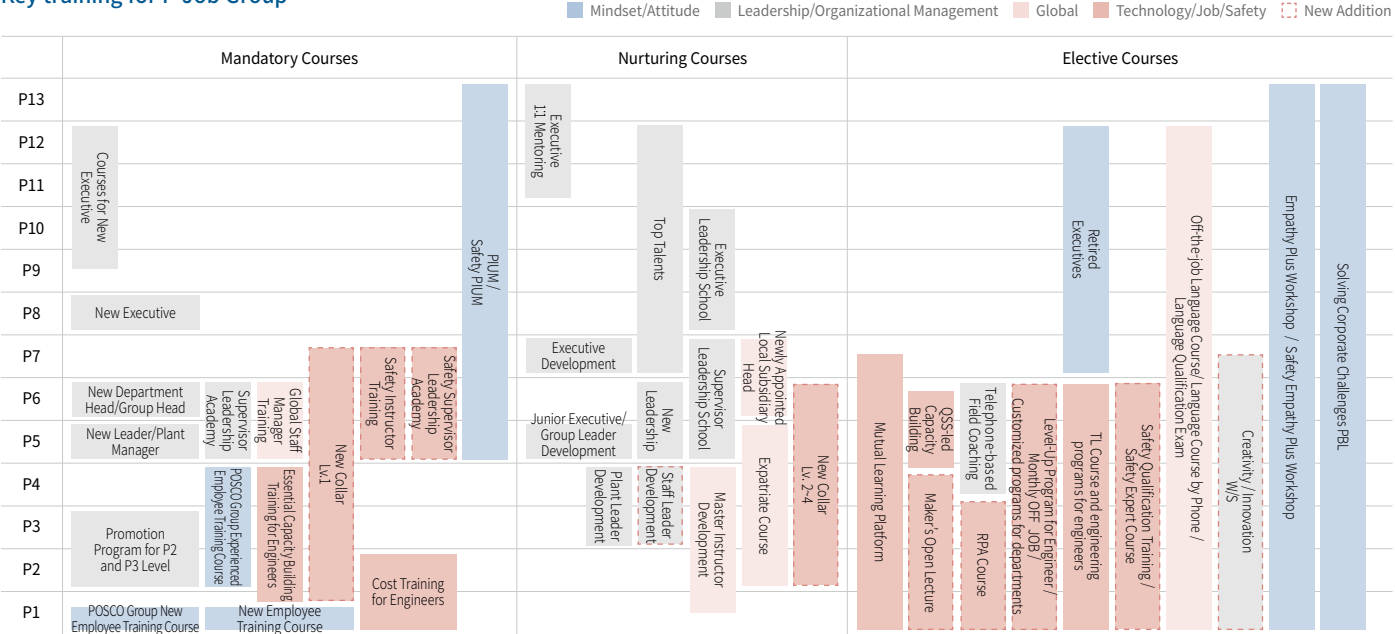


Customized Training Support

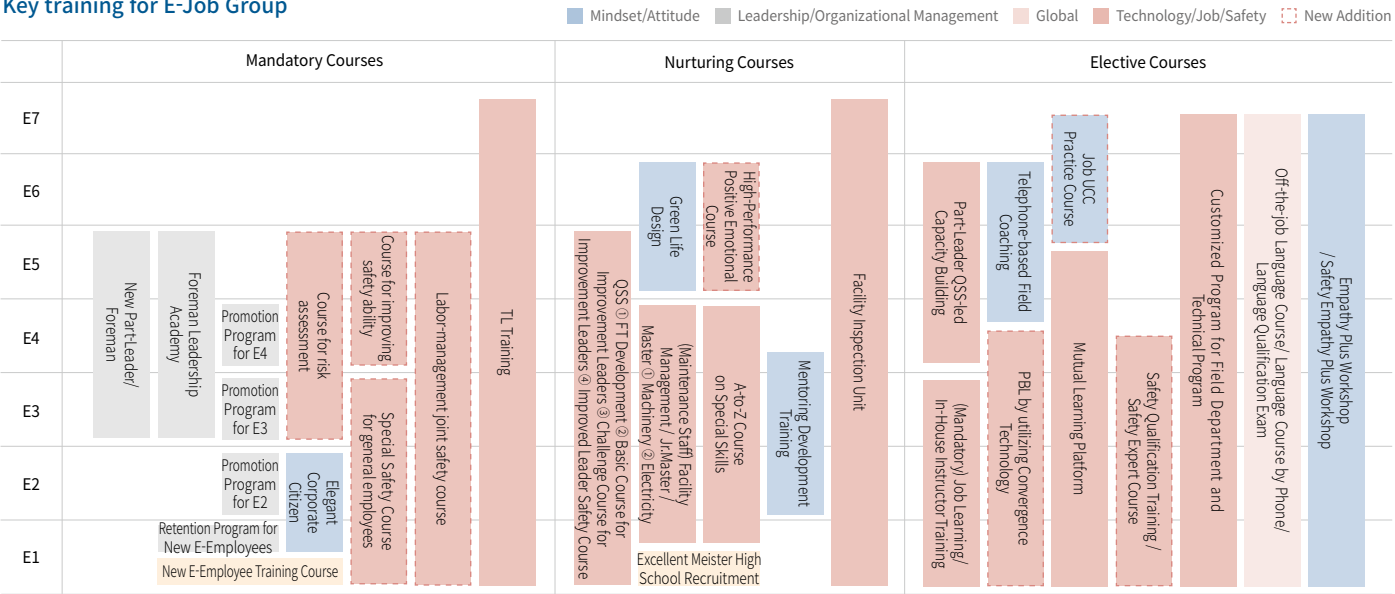
To foster future talent, POSCO offers a total of 2,822 job-specific training programs, including 82 collective training programs and 2,740 e-learning programs.



Key training for P-Job Group



Key training for E-Job Group



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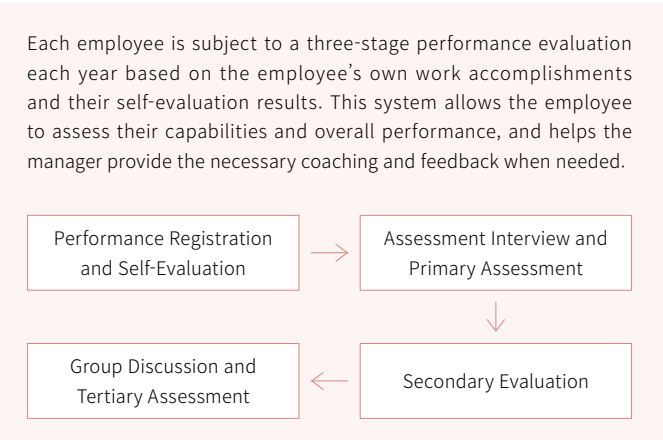
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### Evaluation and Rewards

POSCO objectively evaluates its employees based on individual performance and operates an absolute evaluation system to encourage cooperation among its employees. Prior to any evaluation, both the employee and the appraiser sign a “fair evaluation pledge,” and after the evaluation, the employee can raise an objection to the results. For managers, these multi-source evaluations allow them to reflect on and improve their leadership skills. To ensure these assessments remain fair and equal, POSCO provides regular training on the evaluation criteria and methods, and monitors whether the evaluation has been conducted fairly.

In consideration of internal and external factors, employees’ wages are increased largely according to their individual evaluations, while ensuring there is no discrimination based on gender. Different rates of salary increase are applied depending on individual performance, and the annual salary is increased every year. We also offer bonuses to outstanding employees through the Variability Management Performance System, which are based on the company management’s overall success.

#### Evaluation Process



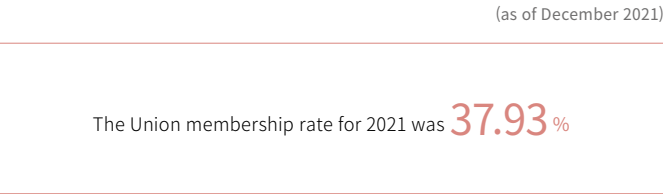
### Labor-Management Cooperation

#### Mutually Beneficial Labor-Management Relations

Since its foundation, POSCO has continued its tradition of a mutually beneficial labor-management relation under the philosophy of “partners building a better future together.” Currently, there are two labor unions active at POSCO, with the POSCO Labor Union as the bargaining representative union. Through group/wage negotiations in 2021, POSCO agreed with the POSCO labor union to improve the Base Up 4.9% (including natural salary increase), wage structure, and the wage peak system. The vote on the collective agreement and the wage agreement, had an approval rating of 70.73%.

At POSCO, both labor and management are dedicated to having stable relations and participating in corporate citizenship programs, maintaining POSCO’s culture of trust and harmony. In 2021, the POSCO Labor Union carried out activities to promote a Great Work Place (GWP) for all, which included a campaign to establish a culture of mutual respect between POSCO and its suppliers, and changing on-site lunchboxes from disposable containers to multi-use containers, among others.

POSCO has established and is operating the Labor Management Council in accordance with the Act on the Promotion of Employees’ Participation and Cooperation. The council practices the management philosophy of corporate citizenship through various activities such as participating in the talent volunteer groups and POSCO 1% Foundation.



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# Diversity and Inclusion

## Human Rights Management

POSCO supports international standards on human rights. We comply with the Universal Declaration of Human Rights, the UN Guiding Principles on Business and Human Rights, the UN Global Compact and OECD Guidelines for Multinational Enterprises. We are doing our utmost to prevent any violations of human rights, and are working hard to resolve negative human rights impacts arising in the management activities.

### Human Rights Management Process

#### Human rights policy

POSCO does not discriminate against any executives, employees, or stakeholders on the grounds of race, nationality, gender, age, academic background, religion, region, disability, marital status and gender identity. We respect individual dignity and diversity under our Code of Ethics, which specifies that we will protect and respect human rights. We respect human rights, support the relevant international standards and have established the dignity

- 1

POSCO observes relevant regulations and human rights standards in all places of business.
- 2

When faced with conflicting local regulations, the company seeks ways to comply with international human rights standards.
- 3

The risk of a severe violation of human rights is an important management issue at POSCO.

of all stakeholders through freedom, safety and improvement of quality of life. The human rights management guidelines and related documents are posted on POSCO’s website to ensure that all stakeholders can easily find the relevant contents and put the standards into practice.

#### POSCO Human Rights Protection Guidelines

To prevent human rights violations and fulfill the company’s human rights management, POSCO enacted the POSCO Human Rights Protection Guidelines on April 1, 2014 in accordance with the UN Guiding Principles on Business and Human Rights and its own Code of Ethics. This was renamed the POSCO Human Rights Protection Operational Guidelines on July 31, 2020, and reflected in the company’s regulations.

#### Human Rights Pledge and Training

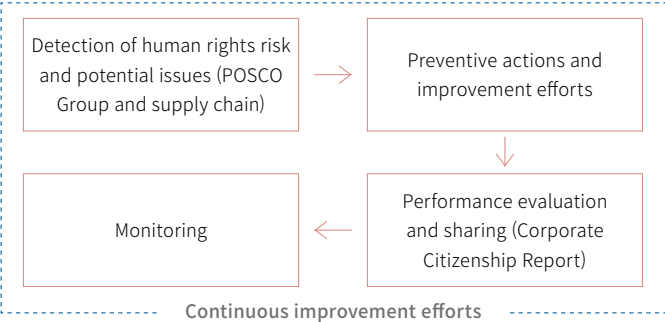
Every January, the POSCO group and its partners make a pledge to comply with the Code of Ethics. Online and in-person training programs are offered to both employees to prevent human rights violations. For overseas offices, top management directly provides training to employees on human rights and ethics management to detect and prevent risks of human rights violations.

In 2021, human rights training for the heads of overseas subsidiaries was conducted for 6,000 employees and local recruitment staff at 62 companies, and the training materials were distributed in six languages (English, Chinese, Thai, Indonesian, Spanish and Turkish).

#### Human Rights Risk Management

POSCO continues to build a culture that respects human rights by conducting a survey of domestic and overseas worksites and the employees of its partner companies each year to check for human rights violations. In 2021, POSCO conducted a survey of 101 partner companies on violations of human dignity and compliance with the safety principles by POSCO employees. Once the results were delivered to the relevant departments, the departments that required improvements carried out their own improvement activities and delivered the results to the Business Ethics Risk Management Bureau. Reflecting the survey results of its overseas entities, POSCO provided additional training such as anti-discrimination and collective bargaining guarantees for local expatriates, and training for local employees on how to report violations of human dignity. When a violation is suspected, either the head office or relevant department within the subsidiary investigates and monitors the situation.

Proclamation of Human Rights Policy based on corporate citizenship management philosophy (Charter of Corporate Citizenship, 2019. 7. 25)



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### Ethics and Human Rights Risk Assessment Results

Classification		Subject to evaluation	Responded to questionnaire	Personnel action taken
Overseas entity	2018	62 companies	52%	2 persons
	2019	30 companies	59%	-
	2020	51 companies	68%	5 persons
	2021	60 companies	69%	2 persons
Partner		101 companies	41%	-

### Human Rights Grievance Process

POSCO has organized a system dedicated to offering counseling on ethics, workplace bullying and sexual harassment, and operates an ethics violation reporting center on its website. Through the human rights grievance process, POSCO guarantees human rights by taking appropriate actions against violations of human dignity.

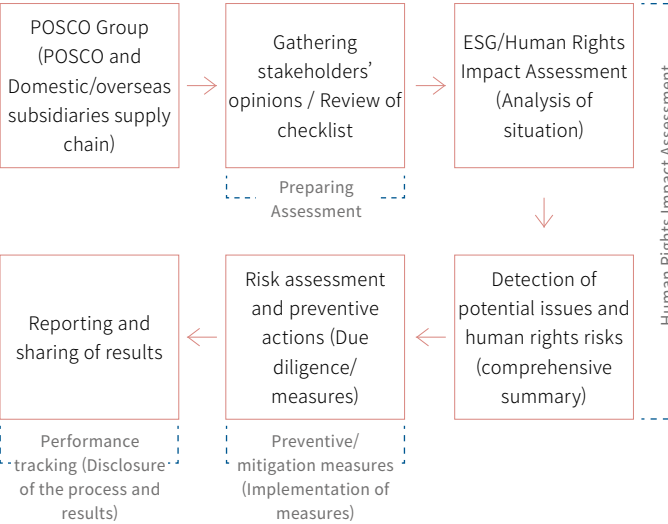


### Ethics and Human Rights Risk Assessment Results

The company conducted a human rights risk assessment in 2021, designed by external institutions, on domestic business sites and 101 partner companies. No major issues were found, but 111 minor issues such as insufficient age verification procedure during recruitment and lack of diversity were found. We are taking mitigation measures such as strengthening the age verification procedure, enhancing the grievance handling process, and supplementing diversity policies. Suppliers that had findings have been addressing the risks by improving their internal regulations, which has to be confirmed by the company.

### Human Rights Due Diligence Process

POSCO identifies, prevents, and mitigates negative impacts on human rights, and conducts human rights due diligence when necessary. This process includes identifying and assessing actual and potential human rights impacts, responding to the issues identified, recording the activities carried out in response and communicating with relevant stakeholders regarding how the relevant impact was addressed.



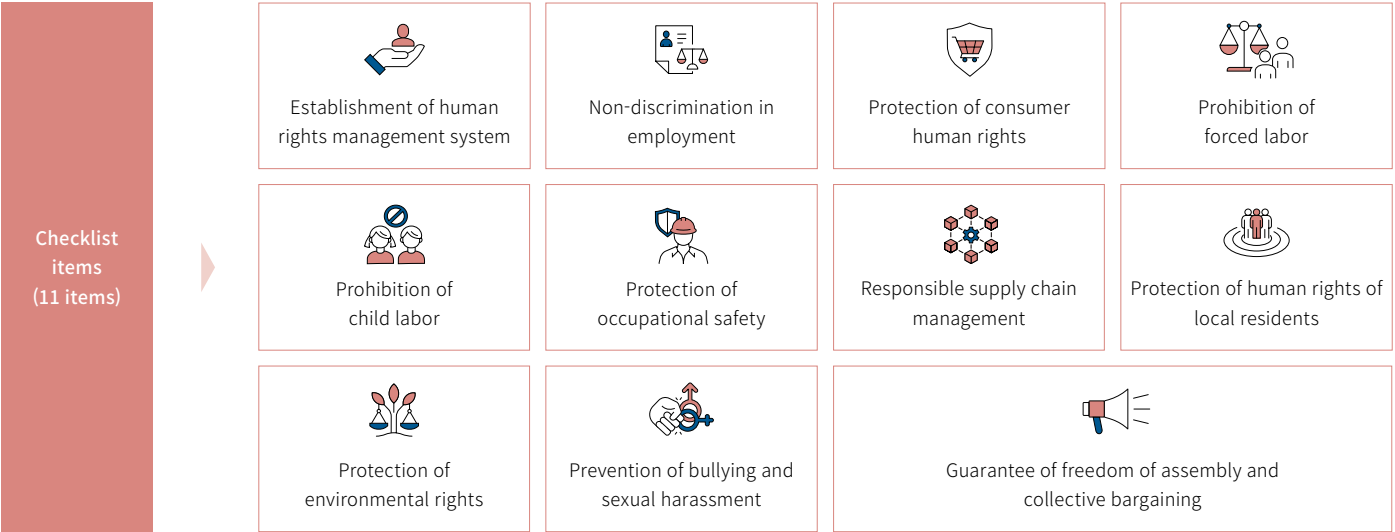
### Human Rights Management in Overseas Offices

To evaluate the level of human rights management in overseas offices, POSCO performs self-assessments through a checklist. In addition, since 2020, the Corporate Audit Office has been conducting independent evaluations to prevent human rights risks, and has offered suggestions for improvement to the relevant subsidiary.

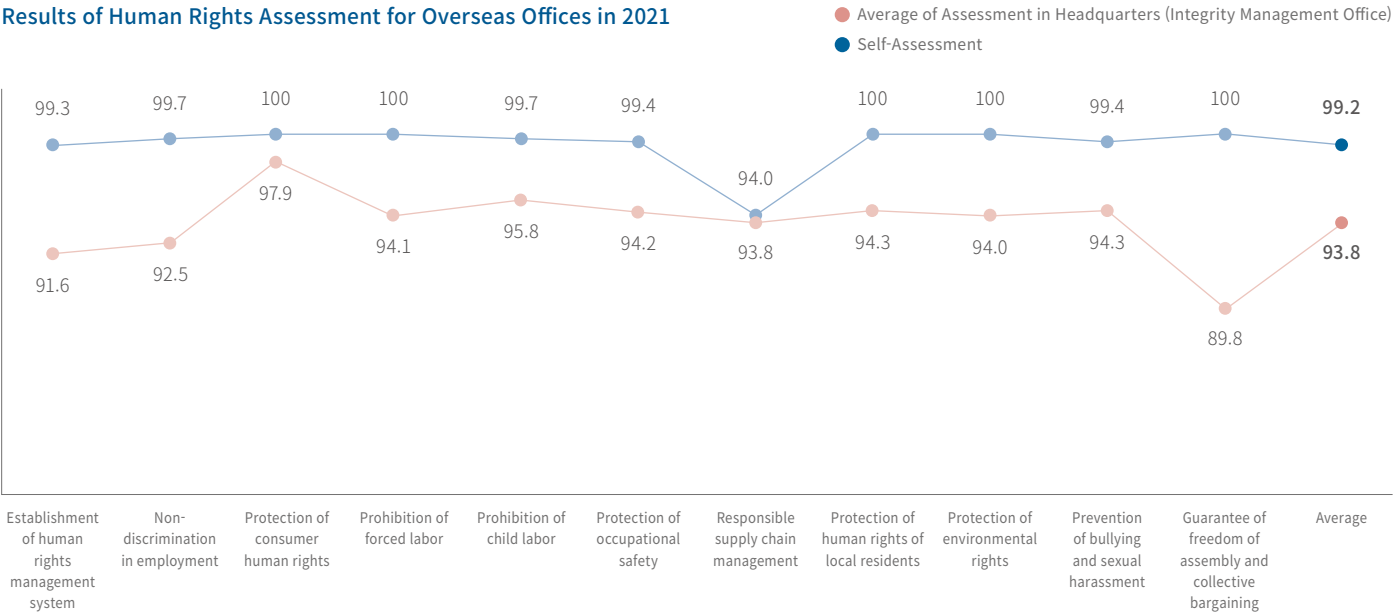
The human rights assessment items consist of key items that help verify 11 human rights management activities, including the establishment of a human rights management system, non-discrimination in employment, guarantee of freedom of assembly and collective bargaining, and prohibition of forced and child labor. The global staff’s human rights assessment scores are forwarded to each office and used as the basis for their internal training and improvement activities.

According to the results of human rights surveys on overseas offices in 2021, there was a slight gap between the self-assessment results of the overseas offices and the results of the survey conducted by the Corporate Audit Office of the headquarter, and the results were delivered for each office to assess and make improvements. POSCO has implemented follow-up measures by making personnel changes after monitoring the entities which presented ethical risks and monitoring special interest cases. In addition, ethics and human rights management related training materials were translated into 5 languages and distributed to ensure that the heads of the entities may conduct ethics and human rights training, while for the 8 entities in need of direct training, the headquarter’s Corporate Audit Office gave virtual training on Zoom.

### Overseas offices’ assessment on human rights



### Results of Human Rights Assessment for Overseas Offices in 2021





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## Improving Corporate Culture

### Corporate Culture

POSCO aims for a flexible corporate culture where everyone can express their opinions in a comfortable environment while respecting others. Also, we prohibit discrimination against gender, nationality, race, disability, etc., and create a workplace that grows together by recognizing diversity and cultural differences.

#### Encouraging Hobbies

POSCO supports employees' hobbies, activities and self-development through the operation of the club program called “Dongho Dongrak.” Clubs are organized across various fields, from sports to cultural and learning activities such as movie nights and language studies. 11,366 employees were participating in a total of 1,093 clubs (as of January 14, 2022). POSCO contributes support for up to two club activities per employee, spending around KRW 370 million per year. Employees are also actively contributing with their own talents, which enhances their abilities and creativity in both their personal and professional lives. POSCO plans to continue supporting club activities to foster a culture of happy employees.

#### Collaboration and sharing appreciations

The collaboration across teams is essential for POSCO’s entire process, from importing raw materials to steel production and product shipment. Therefore, POSCO operates ‘Collaboration Point’ and ‘Thanks Coupon’ to overcome the silos effect, which means inter-organizational barriers and selfishness, and to realize a corporate culture that fosters communication and harmony. The Collaboration Point is a system that allows employees to exchange points when they collaborate by giving help or sharing knowledge/information at work. Employees can exchange it to

a gift exchange voucher by accumulating 200 points. Thanks Coupon’ is a gift exchange voucher to encourage work support or excellent collaboration with employees of their department or other departments. When sending Collaboration Points or Thanks Coupons, writing appreciation notes is promoted to boost positive corporate culture through daily collaborations and expressing gratitude.

#### Employment for People with Disabilities

POSCO and the Group companies are actively making a range of efforts to expand employment opportunities for people with disabilities. For example, we grant additional points to applicants with disabilities in employment assessments, and support disabled athletes’ training. Based on a 2021 report from the Korea Employment Agency for the Disabled, POSCO’s employment rate for people with disabilities is 3.3%. In addition, POSCO operates a subsidiary-type workplace for the disabled called POSCO Humans. There, we provide disabled employees positions in office support, call centers, cleaning and more. POSCO Humans Pohang office was recognized as a Barrier-Free workplace by the Korean Employment Agency for the Disabled in January 2021. POSCO Group defines itself as more than a workplace, and is constantly striving to create a friendly working environment in which all people with disabilities are respected without discrimination.

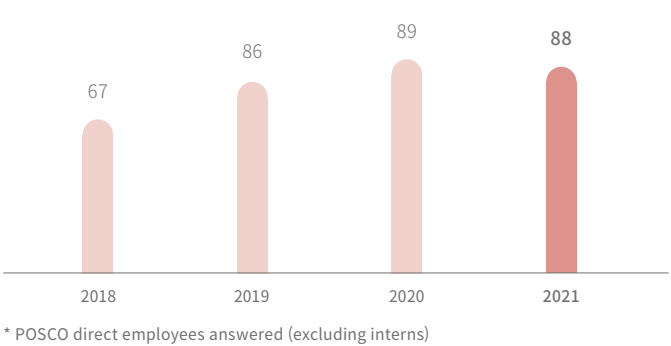


Rate of employment for the disabled 3.3%

### Enhancing Employee Satisfaction

POSCO conducts the Great Workplace (P-GWP) survey every year to evaluate and improve its workplace culture around the world. The P-GWP survey consists of five sections, and its results are delivered to every department so that everyone involved can make POSCO a better place to work. The P-GWP survey result for 2021 was 88 points (out of 100), which is 1 point less than the previous year despite the prolonged COVID-19 crisis. It also was found that employees are positively aware of the company's efforts to promote active work-life balance by improving the efficiency of working methods, improving welfare facilities such as company cafeterias and daycare centers and introducing a non face-to-face counseling center.

#### P-GWP Survey Results



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**Executives – the MZ generation: Activating communication**

POSCO operates the Young Board to promote the CEO’s vision of a corporate culture based on trust and creativity, and to improve company communication. Young Board members are selected from various departments including production, technology development, marketing and management support. They suggest improvements such as ways to create a safer work environment, modernize work methods and enhance communication between employees from different generations and/or positions.

Since 2021, we have held a Townhall Meeting with executive and more than 50 employees to listen to the diverse voices of the company’s members. To improve organizational culture voluntarily and strengthen sincere communication, we are also operating Tong-Tong Committee and expanding opportunities for the MZ generation to share their thoughts without hesitation.

**Family-friendly policies**

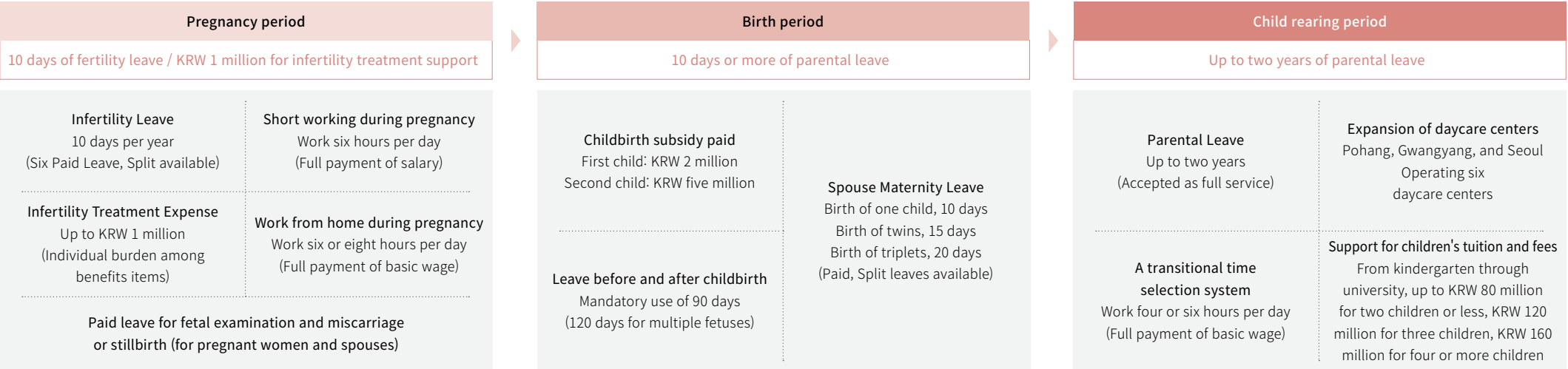
POSCO is making various efforts to create a women-friendly workplace. In July 2020, we introduced for the first time in Korea the “work from home for childcare without career interruption” to allow any employee with children under the age of 8 or 2nd grade in elementary school. Also, in September 2020, the “work from home for pregnant employees” was introduced to support healthy childbirth for female employees. In February 2021, we expanded the work from home to ‘female employees under infertility treatment’ and ‘male employees with spouses who are about to give birth.’ Besides, we are operating six daycare centers in Pohang/Gwangyang/Seoul and actively encouraging the use of a flexible work schedule for work-life balance to support employees to conceive, give birth, and raise childcare without worrying about career interruption. (As of end of 2021, 35% of all employees are using the flexible work schedule) Meanwhile, POSCO is also making continuous efforts to increase the number of women in management positions, appointing the first female executive of a steelworks in 2020. Based on such efforts, we won the Minister of Employment and Labor Award at the 5th Asian Women’s Index Awards in 2020, and have maintained our qualification as a family-friendly certified company for 11 consecutive years since 2011.

**Strengthening Competitiveness of Overseas Employees**

POSCO is a global company that invests in over 20 countries. Our overseas offices are working on increasing local management and local manpower. We believe that by promoting more local employees to manager-level positions, we will be able to inspire local employees to envision the possibility of a prosperous career and better future.

POSCO is operating various training programs such as leadership programs for managerial positions and change agents to foster excellent local workforces. Our Global Mobility Program (GMP) has been operating since 2015. It is designed to facilitate networking between our headquarters and overseas offices and arrange for temporary job placement for overseas hires. The overseas-hired employees can then visit Korea for a period between six months and one year to experience life at POSCO. So far, about 110 employees from 10 countries have participated in the GMP.

Pregnancy/Childcare Support Programs







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**POSCO**  
**CORPORATE CITIZENSHIP**  
**REPORT 2021**



# Fundamentals

POSCO, under its management philosophy of ‘Corporate Citizenship: Building a Better Future Together’, will engage and communicate with all stakeholders including customers, employees and shareholders, and continually seek changes and innovation in pursuit of sustainability by ultimately creating great value for the company.

- Excerpt from the POSCO Corporate Citizenship Charter -



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# Risk Management

## External Economic Risk Monitoring

Since the steel industry is sensitive to external economic risks, POSCO is constantly monitoring business-related fluctuations that could influence the cost of steel and other raw materials. We perform detailed quarterly reviews and forecast analyses on the status of the domestic and overseas economies, as well as the condition of the steel and raw materials markets. The findings of these reports are then considered in our short and medium-term business plans. POSCO also issues bi-monthly forecasts for high-volatility factors such as the FX rates for major nations and the prices of Chinese steel, iron ore, coal, nickel and other raw materials. To keep up to date with other business matters, POSCO’s Global Information Hub (GIH) provides daily information about the global economy, Group businesses, new growth areas, as well as competitive, strategic and technology trends.

### External Risk Monitoring System

Economic / Financial Risks	Steel Risks
Real economy, raw materials, oil prices, interest rates, FX rates, trade conflicts	Steel market conditions, raw materials market conditions, demand-side industries, competitor trends, imported goods, steel industry restructuring
Industrial risk	Emerging Nations Risk
Construction, energy, material, ICT, trade, new businesses	China, Indonesia, Thailand, Vietnam, Myanmar, India, Mexico, Brazil, Turkey, Iran

## Sensitivity Analysis and Scenario-based Management

The external factors that can trigger the greatest impacts on POSCO's management performance include exchange rates and prices of oil, iron ore and coal. Each affiliate including POSCO, routinely monitors potential changes in sales, cost and profits at least once a month. If any of these indicators suggest a business risk, a response plan is immediately developed and implemented. In particular, the sensitivity of each scenario regarding key risk factors, such as sales volume, sales price and material price, is analyzed and reflected in decision-making in the approval of the investment business. POSCO refines its investment management process and expands the management organization to improve the response to any changes in the business environment. In doing so, we strengthen our capacity to monitor and act in any scenario. Changes to POSCO’s business plans are determined by one of three levels of risk: continued low growth, deepening economic recession and crisis. These business plans are then assessed on a monthly basis by comparing the planned to actual performance.

### POSCO Risk Management System

Risk	Business Risk	Internal	Strategy, investment, finance
		External	Economy/financial, steel, industry, emerging countries
	Non-business Risk		Operations, compliance, reputation, ethics
Crisis	Crisis		Safety accidents, climate change, infectious diseases, etc.

In order to enhance our ESG management, we have added a company-wide carbon emissions monitoring system to PosPLOT, a system that predicts minimum fuel costs and optimal mixes. Through this, we are also strengthening our competitiveness by utilizing the results of impact analysis considering carbon emissions as well as costs.

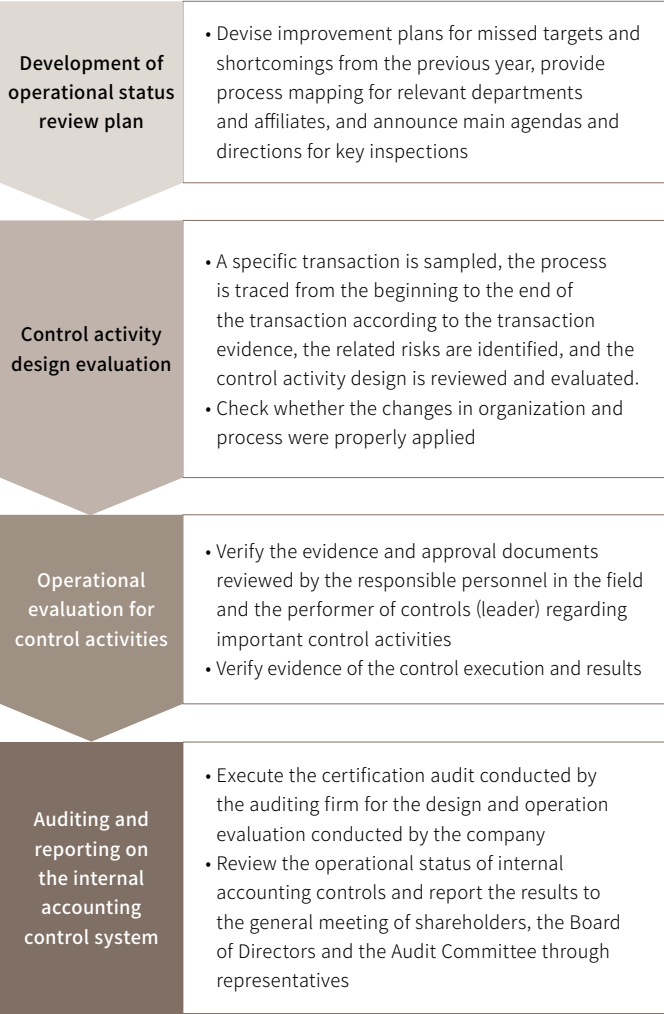
## Internal Accounting Control System

POSCO proactively introduced an internal accounting control system in 2001, and has consistently improved it each fiscal year. As POSCO is registered with the U.S. Securities and Exchange Commission (SEC), it is subject to the rules of the Sarbanes-Oxley Act.<sup>1)</sup> As such, POSCO’s internal accounting system has been validated by external audits regularly since 2006. POSCO has also expanded the internal accounting system to include other Group companies, allowing us to operate different control activities depending on company size. POSCO reviews the operational status of the internal accounting control system each fiscal year, after which the CEO reports all results to the Board of Directors and the Audit Committee, and at the general shareholder meeting. The operational status review is further classified into the design evaluation<sup>2)</sup> and the operational evaluation.<sup>3)</sup> Any deficiencies identified in the evaluation process are addressed in consultation with the external auditors, responsible departments and relevant control performers.

- 1) SOX (Sarbanes-Oxley) Act: The US Corporate Accounting Reform Act, enacted in July 2002, allows for strong sanctions against accounting fraud.
- 2) Design evaluation: An evaluation to verify the adequacy and completeness of the design of control activities in order to prevent and detect errors and irregularities related to the financial statements
- 3) Operational evaluation: An evaluation to verify that control activities are performed in the same manner described in the control description

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### Internal Accounting Control System



### ESG Assessment During Investment Deliberations

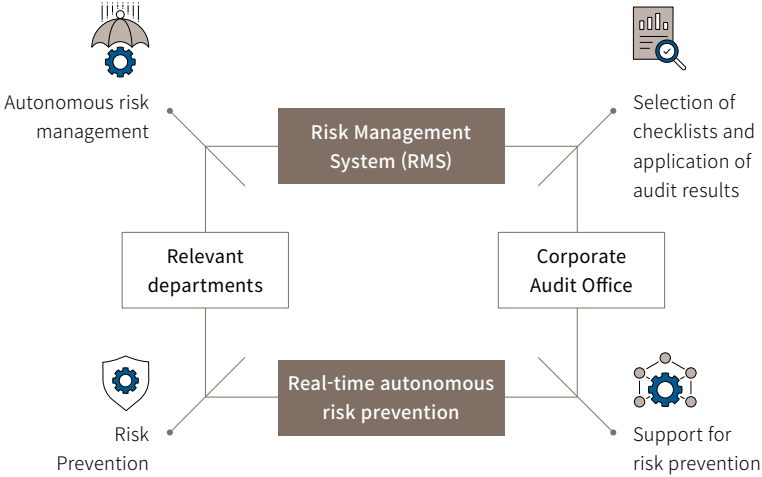
When considering business investments, POSCO reviews environmental, social, and governance aspects through the ESG assessment, which helps identify any potential risks and effects. We are striving to achieve social responsibility in investment after establishing countermeasures for ESG risks that are identified. The ESG performance indicators are also included in the investment performance evaluation items. As the ESG performance indicators, POSCO has developed and utilized appropriate 20 ESG indicators, such as safety and environment, by referencing the external performance evaluation indicators of, for example, domestic and foreign governments and rating agencies.

### Risk Management System (RMS)

For a systematic approach to risk management, POSCO has been running a Risk Management System (RMS)<sup>1)</sup> since 2004 to better control company process risks. To ensure that the RMS operates in consideration of the shifting conditions within the business environment, we combine risk management with our internal auditing process while incorporating feedback from relevant departments to improve the system. Recently, we also developed an autonomous risk prevention system, where data is collected in real time, enabling relevant departments to immediately inspect any potential issues.

1) RMS: Risk Management System. An evaluation system using grade-categorized risk management that classifies tasks, such as finance, procurement, marketing, investment and production/facility management, and selects and evaluates individual risks.

#### Framework for Autonomous Risk Prevention










# Stakeholder Communication

POSCO communicates with its various stakeholders in order to create greater corporate value and achieve sustainable growth. We operate communication channels that are suited to the characteristics of each stakeholder, including employees, customers, partners/suppliers, local communities, and shareholders/investors.

## Corporate Citizenship Love Letters

POSCO has been operating a “Corporate Citizenship Love Letters” website since July 2018. Anyone, including local community stakeholders, shareholders, investors, customers and suppliers, can submit reviews and opinions as either registered or unregistered members. All submissions receive an official reply from the company. “Corporate Citizenship Love Letters” is a way to share local community stories of COVID-19 hardships, and is establishing itself as a communication channel befitting the new virtual communication era.

### POSCO’s Stakeholder Engagement Policy

Stakeholder Group	Communication Channels
<div>Shareholders / Investors</div> 	<div> <ul style="list-style-type: none"> <li>Investor relations (IR) session (quarterly)</li> <li>Disclosure</li> <li>Face-to-face meetings with investors</li> </ul> <ul style="list-style-type: none"> <li>Outside director IR events</li> <li>Regular consultations on credit ratings</li> </ul> </div>
<div>Customers</div> 	<div> <ul style="list-style-type: none"> <li>Customer satisfaction surveys</li> </ul> <ul style="list-style-type: none"> <li>Early Vendor Involvement (EVI) forums</li> </ul> </div>
<div>Partners / Suppliers</div> 	<div> <ul style="list-style-type: none"> <li>Information-exchange seminars with suppliers</li> <li>Meetings with POSCO Honored Partners (PHPs)</li> </ul> <ul style="list-style-type: none"> <li>Information exchange conference with partners</li> </ul> </div>
<div>Local Community</div> 	<div> <ul style="list-style-type: none"> <li>Local presentations and discussions</li> <li>Exchanges with NGOs</li> </ul> <ul style="list-style-type: none"> <li>Environmental Improvement Council</li> </ul> </div>
<div>Employees</div> 	<div> <ul style="list-style-type: none"> <li>Labor unions/Labor-Management Council</li> <li>Young Board</li> <li>Employee satisfaction surveys (P-GWP: POSCO Great Work Place)</li> </ul> <ul style="list-style-type: none"> <li>POSCO Today (POSCO internal webpage)</li> <li>Operational meetings</li> </ul> </div>

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# Commitments & Initiatives

POSCO seeks to constantly change and innovate while communicating and empathizing with all stakeholders. POSCO's ambitious goal of creating a sustainable tomorrow is a challenging task that is not achievable alone. This is why POSCO is demonstrating its leadership in sustainability management by actively participating in various global initiatives.



## Sustainability Management Principles and Guidelines

Since 2012, POSCO has been a member of the United Nations Global Compact (UNGC). The UNGC is the world's largest voluntary corporate citizenship initiative to promote sustainable management based on ten principles in the areas of human rights, labor, environment, and anti-corruption. Pushing toward a better future, POSCO has promoted activities that contribute to the UN's Sustainable Development Goals (SDGs), which are promises of the international community that everyone must fulfill. In recognition of this, POSCO was selected among the “UNGC Korea Lead Group” in 2020~2021. In 2022, by joining Responsible Steel, a global consultative body that promotes and certifies ESG management in the steel industry, POSCO intends to support and comply with Responsible Steel’s vision and mission and supply steel in a more sustainable manner.

## ESG Information Disclosure and Engagement Activities

To transparently disclose ESG performance, POSCO proactively complies with global disclosure guidelines such as GRI, TCFD, and SASB. POSCO has participated in the Carbon Disclosure Project (CDP) since 2003, and took the lead in carbon/environmental information disclosure initiatives by declaring support for TCFD in March 2020 for the first time in Korea. POSCO also joined the Responsible Mineral Initiatives (RMI) in April 2020 and actively takes

part in resolving social and environmental issues in the global supply chain. We also lead responsible climate action by actively communicating with CA100+, a global investors’ association, regarding the carbon reduction goals and performance.

## “Sustainability Champion” of the World Steel Association

Since 2018, the World Steel Association has granted the “Sustainability Champion” qualification each year to global steel companies leading the sustainability of the steel industry. There are a total of 5 qualifications for the Sustainability Champion\*, 2) Publishing of a Sustainability report, 3) Participation in the sustainability program, 4) Submission of sustainability data, and 5) Submission of Life Cycle Inventory (LCI) data. POSCO was selected as the Sustainability Champion for this year in recognition of its efforts and achievements in ESG management, and will continue to contribute to creating a better world based on its corporate citizenship management philosophy.

\* Selection as a Charter Member is completed when all the nine principles and detailed criteria reflecting the content of sustainability management that the steel industry should pursue are satisfied (nine principles: circular economy, environmental protection, health and safety, employees, local community, ethical management, innovation, climate action, and responsible supply chain management)



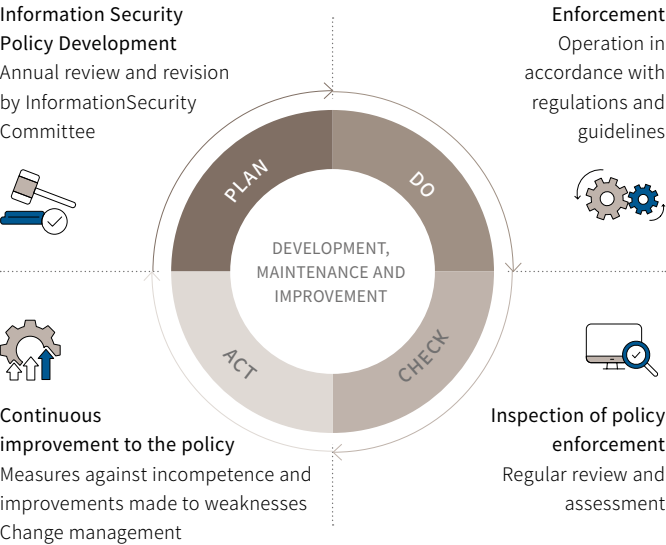
POSCO, selected as a Champion Member for sustainability

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# Information Security

POSCO has been responding to information security threats, which are becoming increasingly more intelligent and advanced, through the Information Security Committee. In addition, we operate an information security system that accounts for changes in laws, systems and environments. We proactively address security risks by analyzing domestic and international information security regulations, current business conditions, the latest technological advances and new risk-management trends. In 2021, we received ISO 27001 certification, an international standard for information security, and were recognized as having a world-class information security system. We plan to expand the security assessment and consulting services to our partners and customers in line with our corporate citizenship philosophy.

## Information Security Policy Operation Cycle



## Information Security Policy

POSCO has enacted and enforced its information security regulations and guidelines. These are amended each year to reflect changes in laws and systems and the internal and external environments, and finalized by the company’s Information Security Committee. Information security regulations and guidelines are accessible to employees, and amendments are posted on the company’s portal system.

## Information Security Committee

Information Security Committee oversees information security and cybersecurity strategies and is presided over by the Chief Information Security Officer. Each meeting, held annually, reviews company’s information security practices, strategies and deliberation over future tactics.

### Information Security Committee

Chairman	Executive in charge of information security
Members	Heads of local information security departments, heads of regulation and guideline implementation departments, members appointed by the chairman
Secretary	Head of the company-wide information security department
Functions	<ul style="list-style-type: none"> <li>Review of the direction of company-wide information security and operational plans</li> <li>Review of any implementation, amendment, or abolition of information security regulations and guidelines</li> <li>Discussion of issues deemed critical by the chairman</li> </ul>

## Protection of Core Technology

POSCO possesses six of the nine national core technologies in the steel sector. We manage core technologies in compliance with the national core technology protection measures standards, and annually undergo the National Core Technology Security Management Survey to raise the level of security. In addition, POSCO identifies key assets, such as workforce, documents, facilities and systems, and applies protection measures to each asset. As the number of professionals for national core technologies was expanded from 36 to 102 in 2022, specialized security inspection procedures and standards were established for each type of export.

## Security Reporting and Processing

POSCO operates a reporting system for employees on security incidents and irregular activities. The information security reporting center is operated independently, and allows employees to report issues such as evidence of hacking, possible information leaks, security vulnerabilities and phishing e-mails. As of 2021, POSCO has handled 53 reported cases. Rewards and compensation are given to anyone who contributes to information security protection, and appropriate measures are taken according to company regulations when a security breach is confirmed.

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## Information Security of Overseas Subsidiaries, Group Companies, and Partner Companies

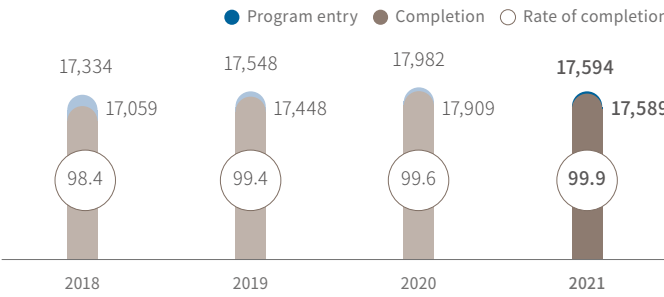
POSCO offers security assessments, consultations and training to overseas offices and Group companies. Concentrated efforts are made for companies with inadequate security levels, while more general support programs, such as security consultation and training, are offered to more established partners. As part of our corporate citizenship efforts, POSCO aims to support information security for customers and suppliers.

Information Security Support Tasks-		
Comprehensive security level and operational system assessment	Inspection of security system operation and penetration testing	Security management enhancement and security expert training

## Awareness and Training Programs for Employees

POSCO provides campaigns, training and security inspections to enhance the security awareness of its employees. The company encourages employees to make information security a focal point in their daily work through a range of channels (e-mail, groupware pop-ups, company-wide posting and online and in-person training), and rewards outstanding employees. All employees are required to take e-learning trainings for information security once a year. We manage employees to have appropriate knowledge through differentiated information security trainings designed for each level of position, such as new employees, new executives/director, and key national technology personnel. Each department has its own designated security officer to carry out training and inspections. Workshops for security officers are held at least twice a year, covering changes in the security policy, current issues, security threat trends and updates on recent events.

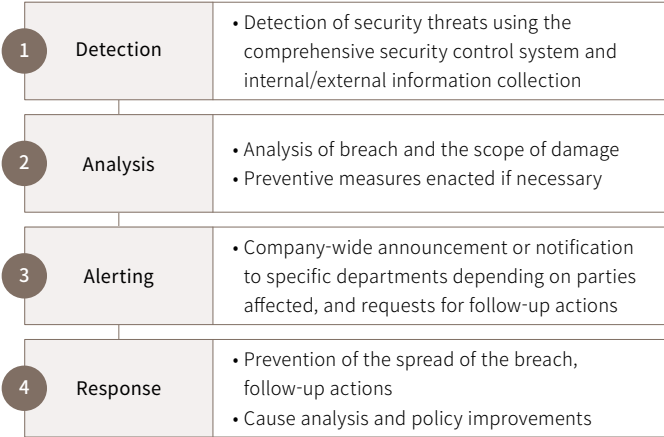
e-learning training for information security in 2021 (Unit: Persons, %)



## Cyber Security Breach Prevention

POSCO’s integrated security control center operates 24/7 to prevent and respond to cyber information breaches. The center carries out various preventive efforts and responds to external hacking attempts by analyzing domestic and international hacking trends, as well as performing real-time monitoring, detection and counteractions against attacks. The integrated security control center also regularly inspects the system for weaknesses to prepare for external breach attempts, and regularly undergoes penetration testing to strengthen its responsiveness.

### Breach detection and handling process



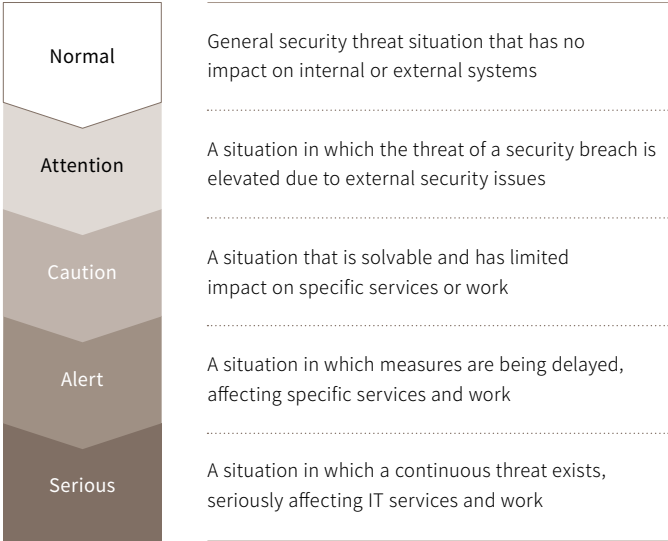
### Prevention of security breaches

POSCO detects cyber breach threats in real time and promptly collects information on external threats to prevent various intrusions through its comprehensive security control center. The company holds penetration tests on its website and major systems, checks for weaknesses, conducts breach tests with in-house experts, identifies weaknesses and seeks improvements and signs of breaches.

### Response to Information Security Breaches

In the event of a breach, POSCO follows its Cyber Threat Response Manual, which outlines the response procedure for each type of breach and the roles of relevant departments. POSCO also has established a five-step standard for cyber intrusion alerts in accordance with the Korea Internet & Security Agency’s standards. We have a company-wide response system that centers on the All Source Situation Room, which acts as the control tower in the event of any incident.

### POSCO In-house Cyber Breach Warning Levels





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# Tax Management

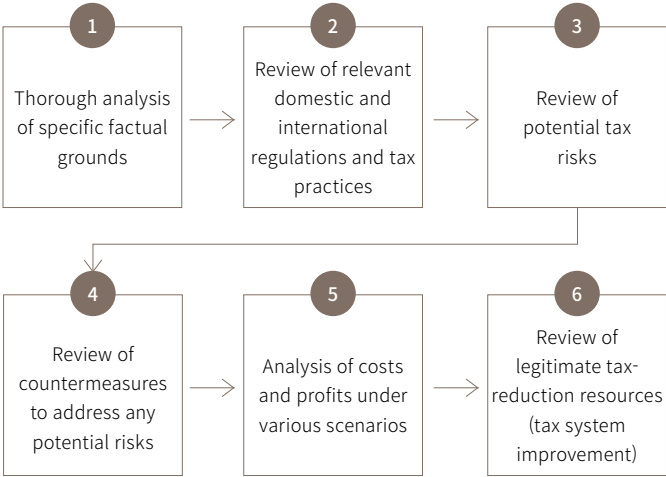
## Tax Management policy

- ✓ POSCO complies with the tax regulations of each country in which it does business, and faithfully carries out its duty to pay taxes. The company does not transfer its income to low-tax countries as tax shelters or take advantage of loopholes in the system. POSCO maintains a transparent relationship with the tax authority of each country and provides relevant financial documents to tax-related parties upon request.
- ✓ POSCO recognizes the differences in tax laws between various countries and works to prevent tax risks. In all transactions, POSCO conducts its business within the scope of the relevant tax laws.
- ✓ Employees in charge of taxes at POSCO entities comply with all tax regulations of the relevant countries in accordance with POSCO’s tax policy, and conduct business while maintaining a transparent relationship with local authorities.
- ✓ While lawfully paying taxes, POSCO appeals against unreasonable taxation through legitimate processes such as legal trials or administrative litigation. The growth and profit gained from utilizing tax reduction methods are shared with local communities.
- ✓ Throughout POSCO’s global businesses, tax risks that occur are reviewed and assessed for compliance with domestic and international regulations. Some examples of tax risks include new business investments, improvements in existing businesses and business restructuring. When reviewing such risks, decisions are made by a council of external tax experts and tax authorities.
- ✓ Regarding transactions with affiliated parties overseas, the company follows the “arm’s length” principle of OECD Transfer Pricing guidelines as well as the tax regulations of the relevant countries. In such cases, a transfer pricing report is prepared to oversee the process.

## Tax Risk Management Activities

In all transactions, POSCO complies with the relevant laws and has a decision-making system based on the tax risk assessment and reviews. We duly file tax reports and make all payments within the set deadlines while documenting and archiving supporting materials for the transactions. POSCO maintains a transparent relationship with tax authorities and responds to all requests for additional information in a prompt and accurate manner. In domestic transactions, we ensure that we pay fair prices when conducting business with third parties and conform to applicable tax laws and regulations. The company also follows the “arm’s length” pricing principle in these cases to prevent international tax risks.

### Tax Risk Assessment Process



## Tax Risk Assessment

POSCO endeavors to prevent all tax risks that may arise from its business transactions of goods and services, mergers and acquisitions, corporate structural changes, international transactions, new business promotion and transaction-related structural changes. In making business decisions, POSCO’s tax organization collaborates with external experts to review all possible tax risks.

## Community Development Through Tax Management

POSCO faithfully carries out its responsibility as a major taxpayer and investor within local communities and contributes to job creation. The company strives to improve local economies by maximizing the use of locally manufactured products, and by contributing to tax revenues through paying all corporate taxes, value-added taxes, withholding taxes, local income taxes and acquisition taxes.

Transparent Tax Payment

In 2021, POSCO recorded earnings before taxes of KRW 9.4161 trillion, with reported taxes of KRW 2.22 trillion at a reported tax rate of 23.6% in its consolidated financial statements. The recorded cash taxes paid amounted to KRW 2.47 trillion at the cash tax rate of 26.2%. Also, POSCO’s average nominal tax rate for the last two years is 17.6% and the average real tax rate is 30.2%. In particular, the average real tax rate for the last two years is 12.6%p higher than the average nominal tax rate. This difference stems from changes in deferred corporate taxes, effects of non-taxable income, non-deductible expenses, tax deductions and exemptions, and unrealized gains or losses.

Based on the consolidated financial statements (Unit: KRW 100 million)

	FY 2020	FY 2021
Reported Taxes – Cash Taxes Paid	(4,560)	(2,502)
Temporary differences	(4,709)	(1,446)
Carried forward tax credit	194	(5)
Unrealized gains/losses	(45)	(1,052)

Financial Reporting	FY 2020	FY 2021	Calculated Average (mean)
Net income before income tax expenses	20,250	94,161	
Reported Taxes (nominal tax amount)	2,369	22,202	Corporate tax expense
Reported Taxes Rate (%) (nominal tax rate)	11.7%	23.6%	17.6%
Cash Taxes Paid (real tax amount)	6,929	24,704	Corporate tax expense
Cash Tax Rate (real tax rate)	34.2%	26.2%	30.2%

Regional Tax Payment (Unit: person, KRW 100 million)

	Name of worksite	Major Business	Number of employees	Sales	Operating Profit	Corporate Income Tax
Domestic				866,936	79,480	20,727
	POSCO	Manufacture and sale steel materials	18,252	399,202	66,496	18,025
	POSCO STEELEON	Manufacture and sale steel materials	432	13,290	1,407	269
	Others			454,444	11,577	2,433
Southeast Asia				137,266	9,513	651
	PT. KRAKATAU POSCO	Manufacture and sale steel materials	2,301	26,946	5,753	-
	POSCO-Vietnam	Manufacture and sale steel materials	496	11,990	407	20
	POSCO Thainox	Manufacture and sale stainless steel plates	545	7,152	367	79
	POSCO-VST	Manufacture and sale stainless steel plates	566	6,407	335	70
	POSCO VIETNAM HOLDINGS (previous.POSCO-VNPC)	Processing and sale steel materials	355	6,090	308	59
	POSCO-TBPC	Processing and sale steel materials	286	4,876	210	44
	Others			73,805	2,133	380
China				85,489	2,259	436
	Zhangjiagang Pohang Stainless Steel	Manufacture and sale stainless steel plates	1,782	37,473	1,470	228
	Others			48,016	789	209
Japan				30,757	487	153
	POSCO-JAPAN	Steel trade	38	16,302	237	70
	POSCO Japan PC	Processing and sale steel materials	272	5,533	164	54
	Others			8,923	86	28
India				29,036	2,512	441
	POSCO Maharashtra	Manufacture and sale steel materials	792	16,795	2,059	311
	POSCO INDIA HOLDINGS (previous.P-ICPC)	Manufacture and sale steel materials	365	6,742	288	72
	POSCO-IPPC	Processing and sale steel materials	189	4,030	179	62
	Others			1,469	-14	-5
North America				28,945	746	421
	POSCAN	Sale coal	5	3,426	533	418
	Others			25,520	213	3
South America				19,123	420	156
	POSCO-Mexico	Manufacture and sale steel materials	496	6,303	190	110
	POSCO-MPPC	Processing and sale steel materials	503	5,967	161	80
	Others			6,853	69	-33
Europe				16,133	234	68
	POSCO-PWPC	Processing and sale steel materials	79	1,270	70	3
	POSCO-ITPC	Processing and sale steel materials	47	1,134	137	30
	Others			13,729	27	35
Others				12,055	2,063	251
Total				1,225,740	97,714	23,305

# Customer Satisfaction Management

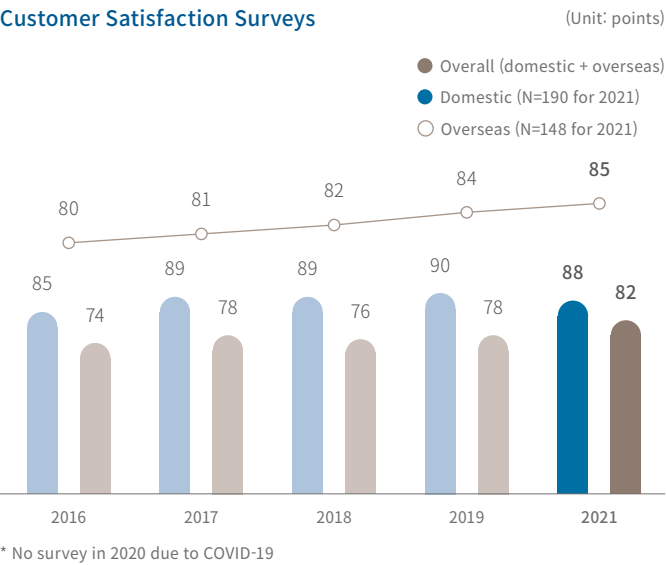
## Customer Satisfaction Survey

Using an external market research agency, POSCO conducts a customer satisfaction survey each year to collect and analyze customer feedback regarding its products and services. In the 2021 the survey conducted by Korea Management Association Consulting (KMAC) targeting 338 major domestic and foreign customers of POSCO, the overall score was 85 points. This is an increase of 1 point compared to 2019, which was before the outbreak of COVID-19. Notwithstanding the environmental restrictions caused by COVID-19, this may be a result of POSCO's efforts to improve customer satisfaction.

In the 2021 survey, POSCO surveyed major customers on five satisfaction metrics: order response and emergency reprocessing, delivery date and transportation, product quality, complaint and claim handling, and solution support activities. We then conducted additional in-depth interviews with 73 customers who reported low satisfaction. Furthermore, in 2021, POSCO devised new questions on the perceptions of the COVID-19 era and ESG management activities to identify and respond to the latest customer needs. We identified 748 customer needs and selected 10 major improvement tasks to improve our system. We plan to separately establish an improvement plan customized for each customer and address them during 2022.

## Small & Medium-Sized Customer Success Support Program, JUMP

To further strengthen its relationship with SMEs, POSCO operates the JUMP program, encompassing the capabilities of POSCO and the Group companies in supporting customers. JUMP is an acronym standing for “Join together, Upgrade value, Move forward, with POSCO,” and the program aims to provide practical assistance for customers. JUMP provides solutions across five areas of 1) technical support, 2) professional knowledge sharing, 3) infrastructure sharing, 4) overseas network support and 5) brand sharing. The program consists of a total of 17 programs including 1) facility support solutions, 2) smart factory construction support, 3) information security consulting, 4) support for customers’ product export and 5) support for customer export. Through the program, POSCO’s small and medium-sized customers can utilize POSCO’s expertise. In 2021, POSCO responded to 100 inquiries from 64 customers in real time. JUMP also operates on POSCO’s E-commerce site (Steel-N.com) for customers to provide information and communicate with them in real time.



Educating the general public on the sustainability of steel

POSCO believes in the unlimited potential of steel, a green material that is fully recyclable, and is collaborating with major Korean companies including E-Mart to ensure that steel can be used in every part of people’s lives.

First, in June 2021, through a green partnership executed with five major Korean B2C companies and institutions including E-Mart and P&G, POSCO conducted several campaigns for the general public—the plastic recovery campaign, coastal stabilization activities, marine environment education, etc.—through which the eco-friendly superiority of steel as a substitute for plastic was widely publicized.

Significantly, the four tons of plastic waste collected through this campaign were upcycled into various items and donated for the local communities.

POSCO also held a special road show for the green world by POSCO and E-Mart at Suwon E-Mart Traders. Consumers who visited Suwon E-Mart Traders were able to experience a beautiful booth with a forest concept made using POSCO’s green steels, Innovilt and Infineli, learn about the sustainability of steel and make their own commitment to sustainable practices through social media events.



Special Road Show on Green World at E-Mart Traders

R&D Performance

Low-carbon technology

The successful hosting of the HyIS Forum 2021 provided an opportunity for POSCO to lead international cooperation. POSCO secured 72-75% of Hot Metal Ratio (HMR) technology by applying secondary combustion maximization technology of the top-bottom odor converter as a blast furnace-based low-carbon technology. For the development of hydrogen-based steelmaking technology, a pilot facility was constructed for brown hydrogen production using POSCO’s proprietary FINEX gas, and the test-run was completed. By using pure hydrogen, we confirmed experimentally that reduced iron with a reduction rate of 95% or more could be manufactured, thereby validating the possibility of creating hydrogen-based steelmaking technology.

Processing technology

By commercializing the world’s first high-speed broadband STS alternating current technology, it is possible to improve productivity while securing a surface quality equal to or higher than that of existing materials. Furthermore, by applying the A-coating technology for CGL, POSCO has successfully produced a large number of continuous coils free of defects. The problem of sinter fusion for the bottom of the vehicle was solved by applying the upper light charging technology for the sintering plant, and the sinter cooling gas circulation was optimized to improve productivity by 3.7% without scattering dust.

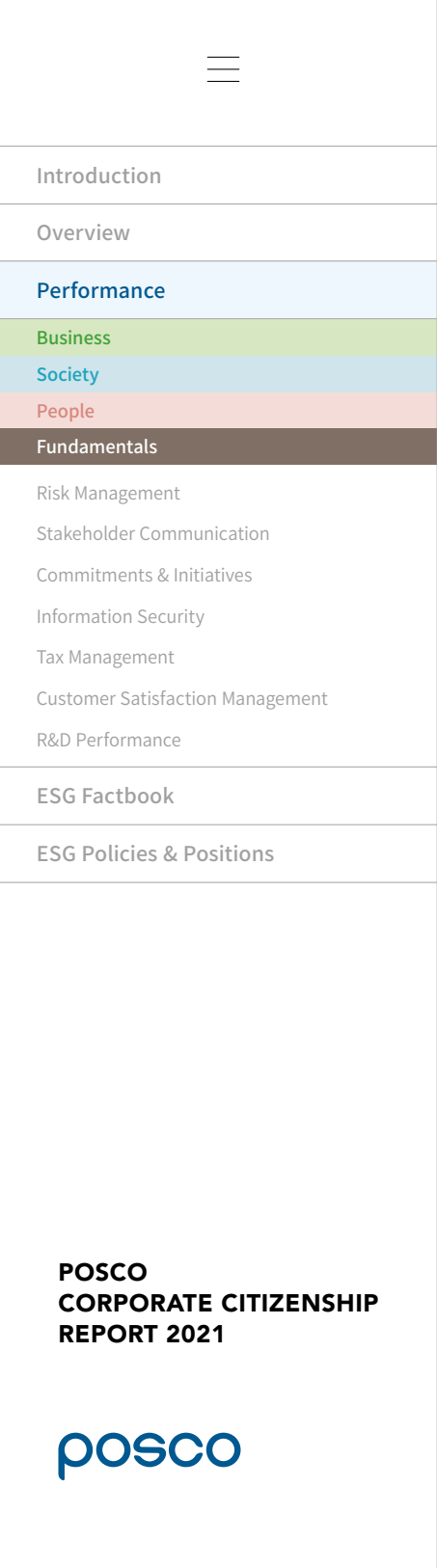
Digital Transformation

POSCO has expanded process automation by utilizing digital twin and imaging AI technologies such as the advancement of PosPLOT and the development of Smart KR operation technology. We have also developed automatic steel tapping technology to detect risks for the converter, as well as real-time quality judgment technology for the cold-rolled PCM side trimming. We are further expanding digitization by expanding the cold-rolling AI setup model across all cold-rolling plants.

Development of new products and solutions

Using AI technology, POSCO has developed steel materials for the next generation of transportation, hyperloop, automatic recommendation of heavy plate steel grades in the field of quality design, online material control, and automatic selection of defective risk orders. POSCO has also internalized the AI-HPF mass production technology for new mobility and supplied 4th-generation PNX products for Toyota. We have completed the development of cryogenic high-Mn products for hydrogen industry infrastructures, ultra-thick materials with low-temperature impact toughness guarantee and high corrosion-resistant STS steels for desulfurization facilities. For solution technology, we have developed roll stamping technology, zzan innovative method that enables us to manufacture complex parts using ultra-high-strength materials, and won the 2021 WSA Steelie Award for technological innovation.





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**posco**



POSCO CORPORATE CITIZENSHIP  
REPORT 2021

# ESG Factbook



Environment

Indicator	Unit	2018	2019	2020	2021
Crude steel production	thousand ton	37,735	38,007	35,935	38,263

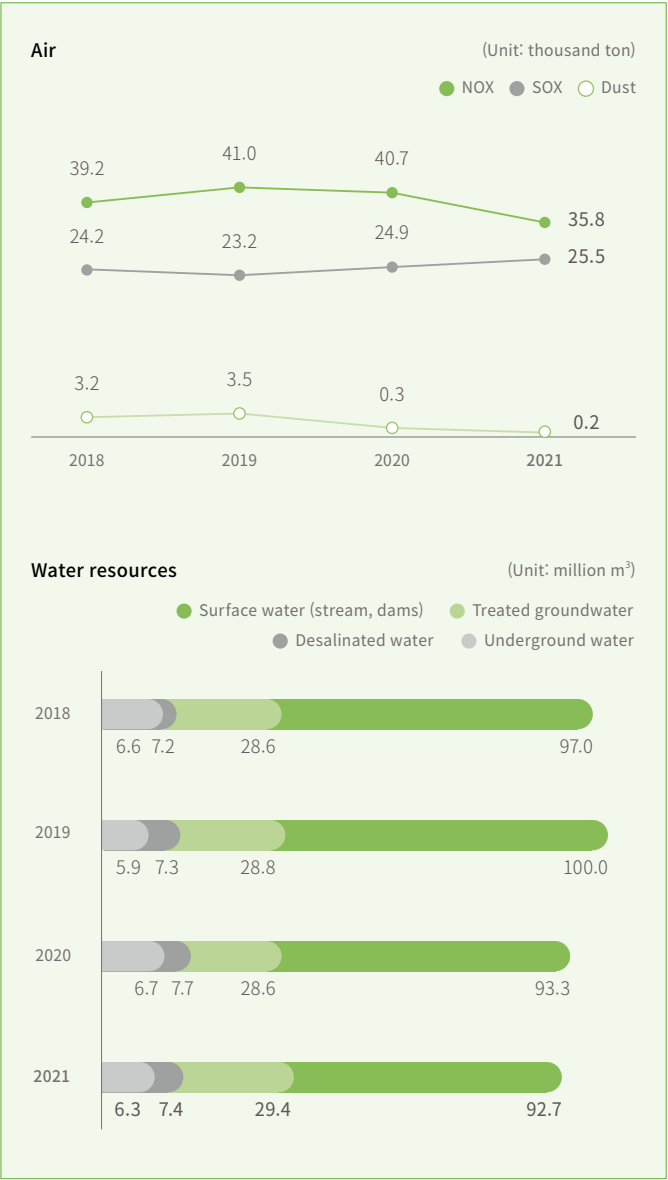
Air <sup>1)</sup>	Unit	2018	2019	2020	2021
Dust emissions = TSP	thousand ton	3.2	3.5	0.3	0.2
Dust intensity (production based)	kg/t-crude steel	0.09	0.09	0.01	0.01
NOx emissions	thousand ton	39.2	41.0	40.7	35.8
NOx intensity (production based)	kg/t-crude steel	1.04	1.08	1.13	0.94
Sox emissions	thousand ton	24.2	23.2	24.9	25.5
SOx intensity (production based)	kg/t-crude steel	0.64	0.61	0.69	0.67

1) With the enforcement of the ‘Special Act on Air Environment Improvement in Air Management Areas’ of the Republic of Korea, the facilities subject to air pollutant emission calculation have been modified since 2020.

Water resources	Unit	2018	2019	2020	2021
Total water intake	million m <sup>3</sup>	139.5	142.0	136.4	135.8
Treated groundwater	million m <sup>3</sup>	28.6	28.8	28.6	29.4
Desalinated water	million m <sup>3</sup>	7.2	7.3	7.7	7.4
Surface water (stream, dams)	million m <sup>3</sup>	97.0	100.0	93.3	92.7
Underground water	million m <sup>3</sup>	6.6	5.9	6.7	6.3
Water resource intensity (crude steel production based)	million m <sup>3</sup>	3.7	3.7	3.8	3.5
Total water resource consumption <sup>2)</sup>	million m <sup>3</sup>	68.8	68.7	64.5	61.0
Total stormwater wastewater discharge <sup>3)</sup>	million m <sup>3</sup>	70.6	73.3	71.9	74.9
Total Wastewater Recycled	million m <sup>3</sup>	48.0	50.9	50.8	47.8
Percentage of water withdrawn from regions with “High” or “Extremely High” baseline water stress	million m <sup>3</sup>	-	-	-	-
Percentage of water consumed in regions with “High” or “Extremely High” baseline water stress	million m <sup>3</sup>	-	-	-	-

2) Total water consumption equals total water withdrawal minus wastewater discharge per GRI Standards.

3) Total amount of wastewater under final treatment at worksites and discharged into the sea



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Waste	Unit	2018	2019	2020	2021
Total waste generated <sup>1)</sup>	ton	11,295,560	16,713,940	21,974,695	21,806,614
Total waste recycled	ton	10,892,423	16,332,607	21,662,956	21,509,991
Total waste disposed (incineration and landfill)	ton	403,137	381,333	311,739	296,624
Percentage of hazardous waste	%	0.9	0.6	0.4	0.4

1) Reflecting the government’s interpretation of waste in 2019, POSCO converted the granulated slag production facility into a waste recycling facility and reported the amount of granulated slag that was not included in waste by 2018.

Resource circulation	Unit	2018	2019	2020	2021
Recycled blast furnace slag	ton	12,239,298	12,450,191	11,998,028	12,441,549
Granulated blast furnace slag	Cement industry use	10,728,377	10,625,781	10,810,459	11,243,762
	Other uses such as fertilizer	259,484	260,406	277,349	210,938
Palletized slag	ton	1,251,437	1,564,005	910,220	986,849
CO <sub>2</sub> reduction from slag re-use in the cement industry <sup>2)</sup>	tCO <sub>2</sub> e	8,392	8,311	8,486	7,651
Ratio of recycling production residue and by-products	%	98.3	98.3	98.8	98.6

2) Calculated by assuming that 1 ton of clinker is replaced with 1 ton of granulated blast-furnace slag for 2018-2020. From 2021, we adjusted CO<sub>2</sub> reduction effect by assuming that 1 ton of Portlan cement, assumption of 85% clinker, is replaced with 1 ton of granulated blast-furnace slag

Management	Unit	2018	2019	2020	2021
Percentage of ISO 50001 certified (Energy Management System)	%	100	100	100	100
Number of certified worksites	count	2	2	2	2
Number of certification-target worksites	count	2	2	2	2
Percentage of ISO 14001 certified (Environmental Management System)	%	100	100	100	100
Number of certified worksites	count	2	2	2	2
Number of certification target worksites	count	2	2	2	2
Number of environmental law violations <sup>3)</sup>	case	10	8	5	4
Amount of green purchases <sup>4)</sup>	million USD	352	368	330	2,661

3) Number of environmental law violations disclosed based on the POSCO business report

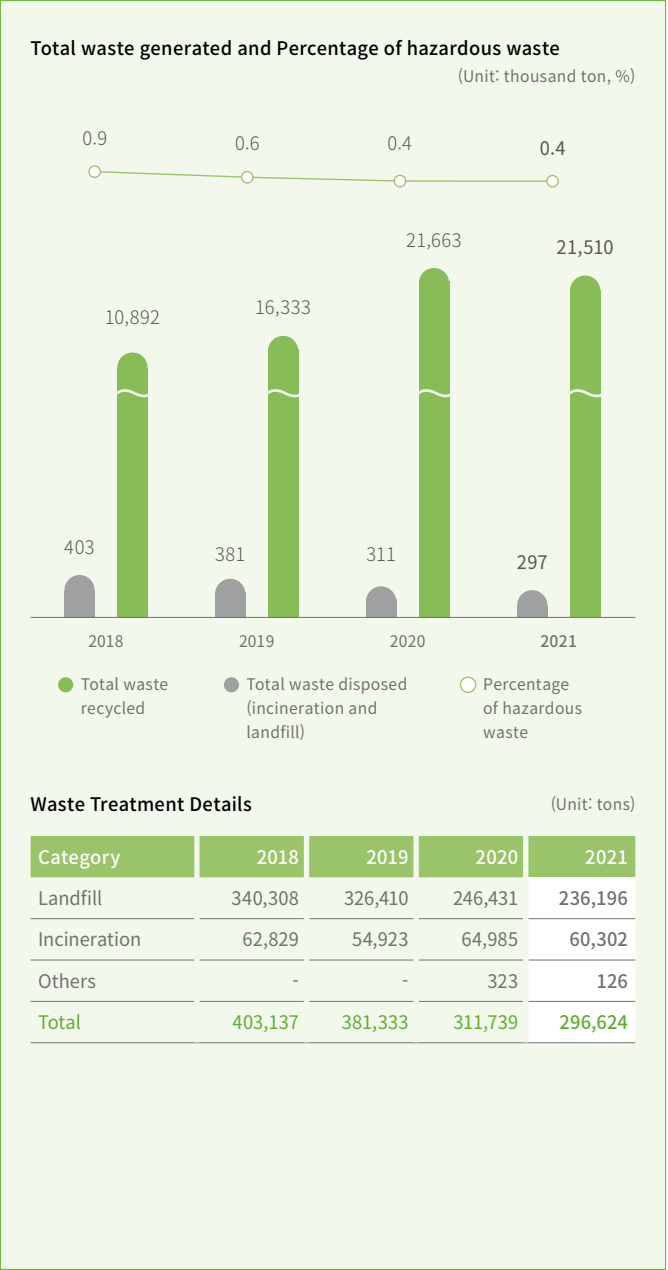
4) Green Purchasing: Purchase amount of eco-friendly raw materials, facilities, and materials in terms of 3R (Recycle, Reduce, Reuse)\*.

The amount of green purchasing of 2021 increased mainly due to new items such as ferrous scrap, and the values of 2018-2020 were adjusted with annual average exchange rates USD to KRW.

\* Recycle: Collection and utilization of discarded resources such as iron and STS scrap

Reduce: Manufacturing by suppliers such as ECO refractories and low-ash coals – products that reduce harmful substances such as CO<sub>2</sub> in the process of using our company’s services and eco-friendly certified products

Reuse: Products that contribute to the reduction of new purchases, such as through material recycling



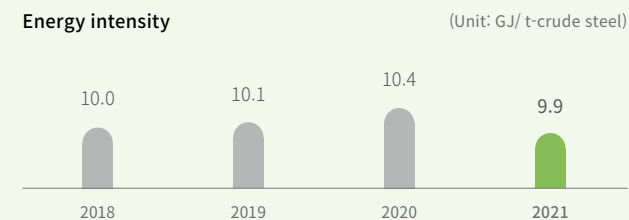
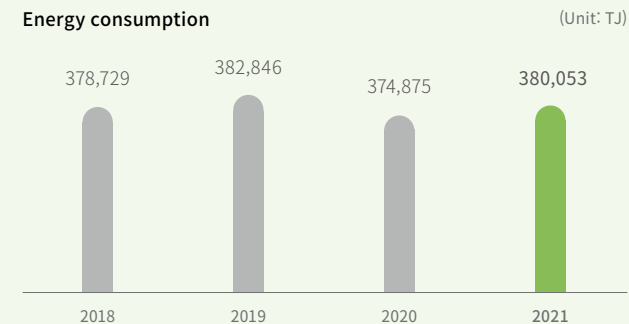


Energy			Unit	2018	2019	2020	2021
Energy consumption			GJ	378,728,730	382,845,859	374,874,610	380,052,799
Direct energy	Natural gas	GJ	41,384,234	45,885,941	52,692,024	41,270,222	
	Diesel	GJ	170,094	183,292	179,288	185,423	
	Gasoline	GJ	10,866	12,732	8,347	4,587	
	Vehicle LPG	GJ	167	132	62	34	
Indirect energy	Electricity <sup>1)</sup>	GJ	8,545,433	6,300,216	4,480,025	10,746,994	
Renewable energy		GJ	119	219	318	270	
On-site energy recovery and reuse	Waste heat	GJ	-	-	-	-	
	By-product gas	GJ	328,617,817	330,463,327	317,514,546	327,845,269	
Energy intensity (production based)			GJ/ t-crude steel	10.0	10.1	10.4	9.9
Percentage of natural gas in energy use			%	87	86	85	86
Percentage of electricity in energy use			%	11	12	14	11
Percentage of by-product gas in energy use			%	2	2	1	3
Renewable energy sales			GJ	16,135	16,012	16,287	13,840

1) Power purchased from external grid

GHG	Unit	2018	2019	2020	2021
GHG emissions(Scope1 & 2) <sup>2)</sup>	tCO <sub>2</sub> e	78,498,443	80,263,890	75,649,882	78,490,205
Scope 1 (direct emissions)	tCO <sub>2</sub> e	77,391,479	79,447,924	75,069,656	77,101,095
Scope 2 (indirect emissions)	tCO <sub>2</sub> e	1,106,964	815,966	580,226	1,389,117
GHG emissionsScope3)	tCO <sub>2</sub> e	18,903,000	13,139,000	11,951,000	12,872,905
GHG intensity (production based)	tCO <sub>2</sub> e/ton	2.08	2.11	2.11	2.05

2) Due to the problem on handling the decimal point, there is a slight difference between combined value of Scope 1&2 and adding up by business worksites.



GHG emissions(Scope3)	(Unit: thousand tCO <sub>2</sub> e)			
Other CO <sub>2</sub> Emissions	2018	2019	2020	2021
Transportation of purchased raw materials	986	936	903	1,606
Employee commutes	7	5	6	9
Employees' domestic/ overseas business travels	0.6	0.8	0.4	0.2
Purchased products and services	2,997	3,287	3,332	3,423
Upstream leased assets	2,180	2,184	2,014	2,087
Investments	12,733	6,725	5,696	5,748
Total (excluding downstream leased assets)	18,904	13,138	11,951	12,873

1) Calculated with reference to WBCSD/WRI Greenhouse Gas Protocol

2) The total weight of purchased raw materials amounted to 86.53 million tons (concerning coal, iron ore, and limestone, which make up the majority)

3) For 14,066 employees at Pohang and Gwangyang Works

4) GHG emissions were calculated with a focus on suppliers of primary raw materials out of all purchased products and services

5) GHG emissions were calculated from the limestone calcination plant leased to POSCO CHEMICAL out of upstream leased assets

6) Calculated based on POSCO-invested companies subject to the Emissions Trading System in consideration of their Scope 1 & 2 emissions and proportions of equity ownership

## Society

Safety	Unit	2018	2019	2020	2021
Injured employees (total)	persons	18	21	21	20
Injured employees (direct employees)	persons	6	13	12	7
Injured employees (contractors)	persons	12	8	9	13
Injury rate (total)	%	0.06	0.07	0.07	0.06
Injury rate (direct employees)	%	0.04	0.07	0.07	0.04
Injury rate (contractors)	%	0.09	0.06	0.06	0.08
Fatalities (total)	persons	5	2	4	1
Fatalities (direct employees)	persons	0	2	2	0
Fatalities (contractors)	persons	5	0	2	1
Fatality rate (total)	%	0.02	0.01	0.01	0.003
Fatality rate (direct employees)	%	0.00	0.12	0.12	0.00
Fatality rate (contractors)	%	0.04	0.00	0.01	0.01
Percentage of ISO 45001 certified (health and safety management system) (Total)	%	100	100	100	100
Number of certified worksites	count	2	2	2	2
Number of certification target worksites	count	2	2	2	2

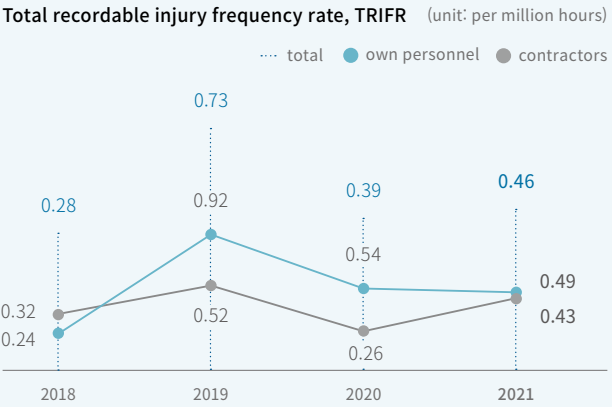
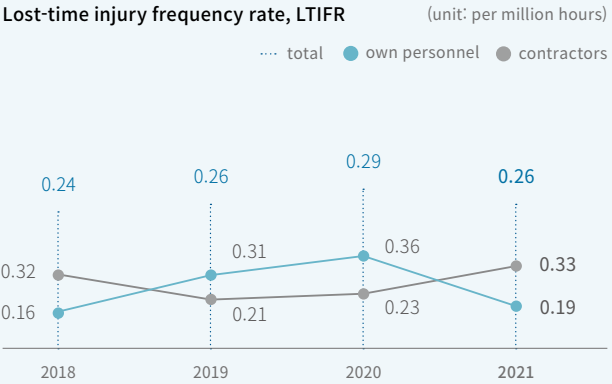
1) The standards for direct employees and primary contractors were prepared to match the method of calculating indicators such as lost time injuries. The number of casualties in each year, including direct employees and all contractors is as follows.

2) The standards for direct employees and primary suppliers were prepared to match the calculation method of indicators such as fatality rate. The number of deaths in each year including direct employees and all contractors is as follows.

2018	2019	2020	2021	2018	2019	2020	2021
18	28	26	22	5	3	5	1

3) The figures from the 2020 Corporate Citizenship Report differ due to a change in the statistical standards of LTIFR and TRITFR from the number of incidents to the number of injuries.

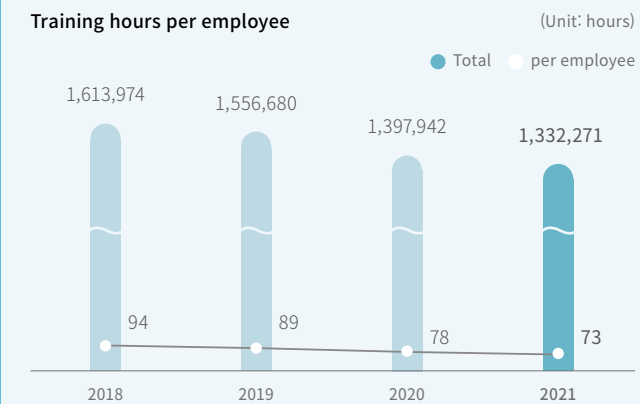
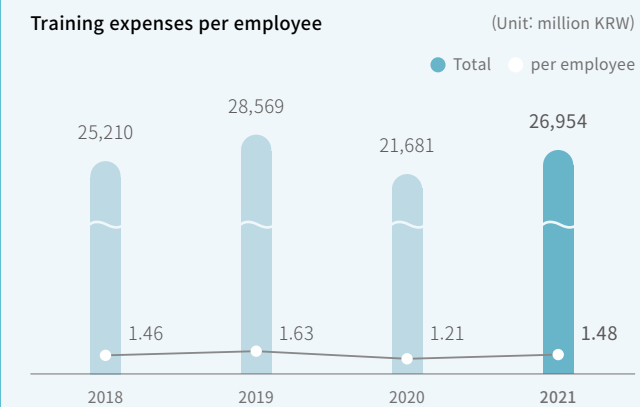
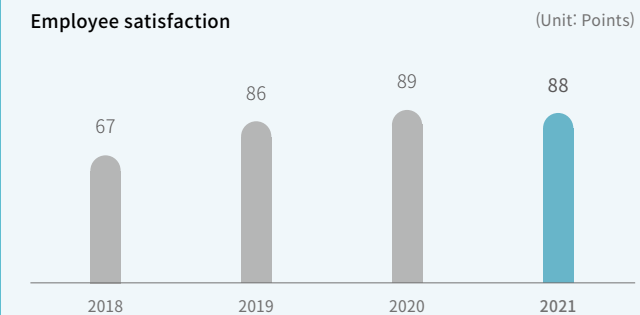
The lost-time injury frequency rate and total recordable injury frequency rate for POSCO worksite locations according to the accident management criteria of Korea are as follows:



HR	Unit	2018	2019	2020	2021
Total number of employees	persons	17,221	17,574	17,937	18,252
Total number of executives	persons	71	71	74	79
Total number of employees	persons	17,150	17,503	17,863	18,173
Number of permanent employees	persons	16,899	17,299	17,665	17,559
Number of temporary employees	persons	251	204	198	614
Continuous years of service	years	19.9	19.6	19.1	19.0
Number of new hires	persons	886	1,026	701	1,192
Percentage of open positions filled by internal candidates	%	99.8	98.3	99.3	97.2
Recruitment cost	KRW	756,146,931	1,074,507,644	902,484,594	1,236,268,814
Voluntary resignation rate	%	1.67	1.69	1.26	2.04
Total turnover	persons	660	669	817	1,070
Number of retirees	persons	356	355	578	691
Manager turnover rate	%	1.21	1.37	1.37	2.21
Employee satisfaction	Points (100-point scale)	67	86	89	88
Number of strikes exceeding one week in duration	cases	-	-	-	-

Training	Unit	2018	2019	2020	2021
Training expenses per employee	million KRW	1.46	1.63	1.21	1.48
Total employee training costs (education and training costs)	million KRW	25,210	28,569	21,681	26,954
Training hours per employee	hours	94	89	78	73
Total training hours	hours	1,613,974	1,556,680	1,397,942	1,332,271

Pension Subsidies	Unit	2018	2019	2020	2021
National pension (company contribution)	million KRW	41,465	43,230	44,937	45,921
Personal pension subsidies	million KRW	5,625	2,803	2,732	2,603
Number of personal pension beneficiaries	persons	6,759	4,354	4,197	4,074



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Diversity <sup>1)</sup>	Unit	2018	2019	2020	2021
Percentage of female employees <sup>2)</sup>	%	4.9	5.0	5.2	5.8
Percentage of women in managerial positions or higher <sup>3)</sup>	%	11.1	11.6	11.5	12.4
Percentage of women in top management positions (including directors)	%	1.3	2.6	3.7	2.5
Percentage of females in junior managerial positions <sup>4)</sup>	%	23.3	23.4	22.7	23.5
Percentage of female employees in managerial positions in revenue-generating department <sup>5)</sup>	%	15.4	18.1	19.3	22.6
Percentage of female employees related to STEM <sup>6)</sup>	%	8.0	7.6	7.5	9.3
Percentage of employees with disabilities	%	2.9	3.0	3.3	3.3

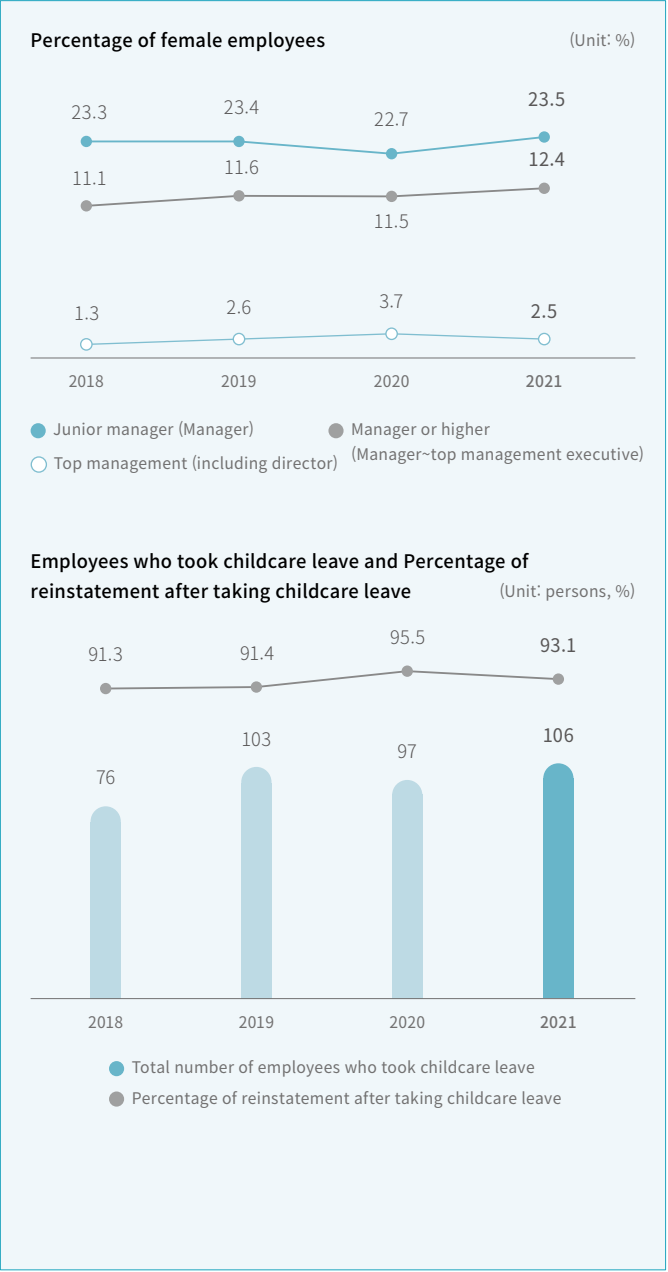
1) The number of foreign employees (based on domestic worksites) is 10 as of 2021. The compositions are Chinese (0.02%), Filipinos (0.02%), Russians,Uzbekistanis, and Indonesians (0.02%)  
2) Some numbers have been updated with the integration of Annual Report disclosure standards and Calculations standards  
3) Ratio of women in all managers, from junior manages to top executives  
4) Junior managers refer to mid-level managers  
5) Ratio of female employees who are managers or higher in the marketing division  
6) STEM: Science, Technology, Engineering, Mathematics

Work-Life Balance	Unit	2018	2019	2020	2021
Total number of employees who took childcare leave	persons	76	103	97	106
Female employees who took childcare leave	persons	53	70	52	49
Male employees who took childcare leave	persons	23	33	45	57
Percentage of reinstatement after taking childcare leave	%	91.3	91.4	95.5	93.1
Reinstated employees after childcare leave	persons	94	106	127	121
Reinstated target employees after taking childcare leave	persons	103	116	133	130

Social Contribution	Unit	2018	2019	2020	2021
Social contribution expenses	million KRW	48,650	48,841	34,089	49,455
Voluntary service hours per person	hours	27	27	17.9	16.0
Total voluntary service hours	hours	462,697	451,511	319, 305	296,729

Results of Customer Satisfaction Survey <sup>7)</sup>	Unit	2018	2019	2020	2021
Total	points (100-point scale)	82	84	-	85
Domestic	points (100-point scale)	89	90	-	88
Overseas	points (100-point scale)	76	78	-	82

7) Survey postponed in 2020 due to COVID-19



Economic

Business performance	Unit	2019	2020	2021
Sales	KRW million	30,373,511	26,509,920	39,920,201
Cost of sales	KRW million	26,700,874	24,323,352	32,136,438
Gross profit	KRW million	3,672,637	2,186,568	7,783,762
Selling and administrative expenses	KRW million	1,086,278	1,051,372	1,134,162
Operating profit	KRW million	2,586,359	1,135,197	6,649,600
Financial profit (loss)	KRW million	360,440	410,483	768,526
Other non-operating income	KRW million	1,115,550	527,799	434,425
Net income before tax	KRW million	1,831,249	1,017,880	6,983,700
Corporate tax expenses (income)	KRW million	655,536	52,017	1,802,472
Net income	KRW million	1,175,712	965,863	5,181,227

Financial position	Unit	2019	2020	2021
Current assets	KRW million	18,216,066	19,579,953	25,918,880
Non-current assets	KRW million	37,494,700	37,215,015	38,323,879
Total assets	KRW million	55,710,766	56,794,969	64,242,759
Current liabilities	KRW million	3,331,446	5,089,111	7,868,269
Non-current liabilities	KRW million	6,765,135	6,591,154	7,339,065
Total liabilities	KRW million	10,096,581	11,680,264	15,207,334
Total equity	KRW million	45,614,185	45,114,704	49,035,425

Cash flows	Unit	2019	2020	2021
Cash flows from operating activities	KRW million	3,600,955	5,157,670	4,780,338
Cash flows from investment activities	KRW million	(-) 3,952,722	(-) 4,359,430	(-) 3,413,276
Cash flows from financing activities	KRW million	1,075,756	76,314	(-) 1,149,296
Cash at the beginning of year	KRW million	259,219	978,139	1,822,660
Cash at the end of year	KRW million	978,139	1,822,660	2,042,274

\* The financial data are based on the separate financial statements of POSCO Holdings as of December 31, 2021.

Association Fees and External Sponsorship Status

In accordance with the Corporate Citizenship Charter, the Code of Ethics, the Anti-Corruption Compliance Guidelines, and the Korean Political Funds Act, POSCO strictly prohibits the use of the company's assets and budget for political donations and sponsorships. In accordance with the BOD operational regulations, the ESG Committee deliberates and determines donations in excess of KRW 100 million and less than KRW 1 billion, while support donations in excess of KRW 1 billion are determined by the ESG committee following prior deliberation.

Status of external sponsorship (For 2021; portion in excess of KRW 1 billion)

Classification	Amount	Remark
Sculpture donation within Hwanho Park in Pohang City	Approx. KRW 11.7 billion	Board of Directors' resolution dated November 5, 2021
Donation to help neighbors in need at end of year	Approx. KRW 10 billion (POSCO KRW 8 billion, Group companies KRW 2 billion)	Board of Directors' resolution dated December 10, 2021

Association membership fee-related payment amount (Unit: one thousand KRW)

Category	2018	2019	2020	2021
Tax-free organizations (non-profit entities, etc.)	6,693,557	6,955,811	6,807,845	7,895,448
Lobbyists / Lobby organizations	0	0	0	0
Political campaigns/political groups	0	0	0	0
Other	0	0	0	0

Details of major association membership fee payments (2021, Unit: one thousand KRW)

Category	Total Amount of Paid Fees
Korea Steel Association (KOSA)	2,564,000
World Steel Association (worldsteel)	910,000
Korea Employers Federation (KEF)	318,050

\* Purpose of participation in association  
1) Korea Steel Association: A consultative body formed with the purpose of enhancing the global competitiveness and sustainability of the Korean steel industry  
2) worldsteel: A consultative body formed with the purpose of enhancing the competitiveness of the steel industry based on global steel industry data analysis  
3) Korea Employers Federation: An economic organization formed with the purpose of enhancing corporate competitiveness and establishing a cooperative system between labor and management



## Major Material Issues

Cateogry	Material Issues 1	Material Issues 2	Material Issues 3
Major issue	Worksite safety risk management	Climate change response	Increase energy efficiency
Category	Occupational health & Safety	Climate Strategy	Climate Strategy
Reasons for selecting major issues	POSCO operates various operations at domestic and abroad, including Pohang Steelwork and Gwangyang Steelwork. Since the process in the steel industry contains high temperatures and heavy equipments, workplace safety accidents are at high risk. Safety accidents at production sites can cause serious casualties to workers and lead to management losses such as reduced employee morale and increased regulatory costs.	Climate change is a global problem that threatens the sustainable future of humans. Due to the nature of the steel industry, POSCO emits lots of carbon and is exposed to risks such as domestic and foreign GHG regulations and increased customers' need for low-carbon products. Also, there are potential physical risks such as disruption in the procurement of raw materials due to global meteorological phenomena such as heavy rains and floods.	The process of making steel requires a lot of energy, and energy costs are an important competitiveness factor in steel production. Improving energy efficiency can increase cost competitiveness and resilience to changes in the external energy market. In addition, it can contribute to building a sustainable society by reducing carbon and reserving natural resources.
Business effect	Risk	Risk	Risk
Response method	POSCO re-established the safety and health management system into nine components to secure health and safety obligations as stipulated in the Serious Disaster Penalty Act in 2021. We are promoting the health and safety management system as a focus activities to establish a robust health and safety management system, create a safety-first organizational culture, and foster human resources to enhance safety expertise. For the continuous operation of the health and safety management system, we check and improve the direction of our health and safety activities through monthly audits on the safety index. Based on the Occupational Safety and Health Act, we establish a plan for health and safety every year and report to the board of directors, and get approval for implementation. In addition, we get a diagnosis at least once a half year through an external institution to identify the safety management level and improve our plan.	POSCO declared a vision for "2050 Net Zero" in December 2020 under a low-carbon response strategy consisting of 'Green Process, Green Product, Green Partnership.' Green Process is a technology development and investment to reduce GHG in the workplace, including energy efficiency improvement, low carbon investment and technology development, iron scrap utilization, application of carbon capture and storage (CCUS) technology, and commercialization of hydrogen reduction iron. Green Product is materials that contribute to social GHG reduction such as low-carbon steel, new material, and by-product. Through the Green Partnership, POSCO plans to strengthen cooperation on technology development and carbon policy at domestic and foreign and disclose transparent carbon information to stakeholders, such as investors, customers, and the government.	POSCO tries to increase energy efficiency by improving power generation efficiency in steel processes. We are using byproduct gas generated by the steel process as fuel for the steel process and power plants and produced 88% of the power used by the steel plant in 2021. Also, we plan to streamline aged low-efficiency power generating facilities to improve power generation efficiency and minimize by-product gas emissions. POSCO will maximize power generation by developing a technology that predicts by-product gas generation and its supply and demand in real-time.
Long-term target (2024)	Disaster rate 0, critical disaster occurrence rate 0	Emissions of 75.7 million tons	By-product gas emission rate 0.63%
Progress	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>
Executive KPI	Reflect on assessment of the head of the SHE Division	Reflect on assessment of the head of the SHE Division and the head of the Steel Production & Technology Division	Reflect on assessment of the head of the Steel Production & Technology Division
Related report	POSCO Corporate Citizen Report p.71~75	POSCO Corporate Citizen Report p.38~48	POSCO Corporate Citizen Report p.42

## Emerging Risks

Category	Material Issue 1	Material Issue 2
Category	Emerging Risk 1	Emerging Risk 2
RISK Definition	Biodiversity loss	Supply chain management
Business effect	The 2020 Global Risk Report, from the World Economic Forum (WEF), picked loss of biodiversity and ecosystem collapse as one of the biggest crises that humanity will face over the next decade. Loss of biodiversity and ecosystem collapse means uncertainty and limitation in securing natural resources and will affect human life conservation and industrial activities. The report points out that more than half of the world's GDP depends on natural capital, which leads to financial risk to human society. It will cause a serious challenge to sustainability by weakening the profit base of most industries and companies, including the steel industry.	According to "the Proposal for Directive on Corporate Sustainability Due Diligence Directive (draft)" released by EU Commission in February 2022, companies in the EU and third countries must identify potential human rights and environmental risks throughout their supply chains, fulfill their obligations to prevent, mitigate, and terminate them and disclose it. If there is a violation of this obligation, there might lead to civil liability as well as administrative sanctions and fines. These national sanctions and management are expanding, and companies in the world are competing to build a transparent and stable supply chain.
Response method	POSCO understands the importance of biosphere restoration and biodiversity protection. Its Guidelines for Practice of Ethical Norms contains the relevant clauses. Accordingly, POSCO investigates the potential outcome that its projects may have on the biodiversity of the local ecosystem and takes measures to minimize adverse impact. POSCO will prevent, minimize, and mitigate any threat to biodiversity; prior to initiating a project, such as facility expansion, POSCO will investigate and monitor its potential impact on biodiversity. We will make efforts to ensure compliance with this principle across all Worksites, at tier-one suppliers, and at non-tier-one suppliers sites, too. At our work sites designated as World Heritage areas or IUCN Category I-IV protected area, which refer to land or biodiversity protected by international convention, we will observe the laws and regulations stipulated by the local community, country, or region.	POSCO operates ESG risk management processes from supplier registration to performance evaluation and follow-up on contract performance to establish a strong supply chain system. In addition, we operate a supplier code consisting of 49 items in seven categories, including labor human rights, safety and health, environment, ethics, shared growth, and quality management, referring to the RBA (Responsible Business Alliance) code so that all companies with POSCO fulfill their responsibilities as global corporate citizens. All suppliers must agree to the Supplier Code of Conduct to deal with POSCO. POSCO is also expanding eco-friendly purchases to realize net zero and promotes cooperation in hydrogen development and low-carbon/low-cost technology development with overseas raw material suppliers. Also, we carry out supply chain management activities to solve social problems(conflict, human rights, environment, etc.) that occur during mining.
Related report	Corporate Citizen Report p.124~125	Corporate Citizen Report p.62~68, p.134~139

# GRI

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	102-4	Location of operations	POSCO website ( <a href="https://www.posco.co.kr/homepage/docs/kor6/jsp/company/family/foreign_01.jsp">https://www.posco.co.kr/homepage/docs/kor6/jsp/company/family/foreign_01.jsp</a> )
	102-5	Ownership and legal form	p.5
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Category	Index	Details	POSCO response
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GRI 103: Management Approach	103-1	Explanation of the material topic and its boundary	p.23~24
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GRI 103: Management Approach	103-1	Explanation of the material topic and its boundary	p.23~24
	103-2	The management approach and its components	p.24, p.63
	103-3	Evaluation of the management approach	p.24
GRI 414	414-2	Negative social impacts in the supply chain and actions taken	p.65~66



# SASB(Domestic worksites)

Code	Category	Unit	Accounting Metrics	POSCO's Response
Greenhouse Gas Emissions				
EM-IS-110a.1		metric tons (t), percentage (%)	(1) Gross global Scope 1 emissions (2) Percentage covered under emissions-limiting regulations	(1) 77,101,095 (2) 100% Scope 1 emissions are based on those generated from domestic work sites (Pohang Works and Gwangyang Works). POSCO verifies its Scope 1 emissions through verified GHG statements.
EM-IS-110a.2			Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	POSCO announced its POSCO 2050 Carbon Neutrality goal in December 2020. It will achieve its reduction goals for 2050 by increasing hydrogen-based steelmaking to 20% by 2030, and to 50% by 2040. Low-carbon strategies in conformity with reduction routes are detailed in the climate change response document. <a href="#">Direct Link</a>
Air				
EM-IS-120a.1		metric tons (t)	(1) NOx (excluding N <sub>2</sub> O)	35,800
			(2) SOx	25,500
			(3) Particulate matter (PM10)	POSCO manages PM10 on a Total Suspended Particles (TSP) standard. The dust (TSP) emissions are total 264 tons.
			(4) CO emissions	POSCO's primary business is to manufacture steel products by separating and refining iron from iron ores at high temperatures through a blast furnace. This steel production process generates air pollutants such as SOx, NOx and dust. POSCO reports all emission volumes. For other substances, data is neither collected nor calculated.
			(5) Manganese (MnO) emissions	
			(6) Lead (Pb) emissions	
(7) Volatile organic compounds (VOCs) emissions				
(8) Polycyclic aromatic hydrocarbons (PAHs) emissions				
Energy Management				
EM-IS-130a.1	Quantitative	gigajoules (GJ), percentage (%)	(1) Total energy consumed	380,052,799
			(2) Percentage of grid electricity	2.9%
			(3) Percentage of renewable source electricity	POSCO sold 13,840 GJ of its produced renewable energy, with the amount used totaling 270 GJ.
EM-IS-130a.2	Quantitative	gigajoules (GJ), percentage (%)	(1) Total fuel consumed	369,305,805
			(2) Percentage coal	N/A POSCO uses coal as a reducing agent (raw material).
			(3) Percentage natural gas	11.1%
			(4) Percentage renewable	N/A
Water Management				
EM-IS-140a.1	Quantitative	thousand cubic meters (m <sup>3</sup> ), percentage (%)	Total fresh water withdrawn	135,800
			Percentage recycled	35.2%

Code	Category	Unit	Accounting Metrics	POSCO's Response
EM-IS-140a.1	Quantitative	thousand cubic meters (m³), percentage (%)	Percentage in regions with High or Extremely High Baseline Water Stress	0 In Pohang and Gwangyang, where POSCO's domestic worksites are located, the Baseline Water Stress is under 40%, so this usage metric is not applicable.
			Percentage in regions with Extremely High (>80%)' Baseline Water Stress	0 In Korea, where POSCO's domestic worksites are located, Baseline Water Stress is not particularly high in any region, so this usage metric is not applicable.
Waste Management				
EM-IS-150a.1	Quantitative	metric tons (t), percentage (%)	Total amount of waste generated	21,806,614 POSCO manages its generation and treatment of waste through Allbaro, the Korean government's official waste disposal system.
			Percentage hazardous	POSCO follows the criteria set forth by the Waste Management Act of Korea in managing the waste it generates, treating waste containing hazardous substances as "designated waste" and legally disposing of it. POSCO's definition of designated waste differs from that of the SASB. The percentage of designated waste generated amounts to 0.4%.
			Percentage recycled	98.6%
Workforce Health & Safety				
EM-IS-320a.1	Quantitative	incidence rate per 200,000 hours	Total recordable incident rate (full-time and contract, TRIR)	0.09
			Fatality rate (full-time and contract)	0.003
			Near miss frequency rate (full-time and contract)	28.11
Supply Chain Management				
EM-IS-430a.1	Discussion and Analysis		Discussion of the process for managing iron ore and/or coking coal sourcing risks arising from environmental and social issues	POSCO has promoted cooperation with overseas coal and iron ore suppliers to develop hydrogen and low-carbon/low-cost technologies for the establishment of a low-carbon supply chain and sustainability throughout the steel industry. We have actively promoted activities to reduce emissions of harmful substances into the environment by expanding the use of low-ash coal and low-to medium-nitrogen anthracite. We have also supported education and employment-related projects for low-income residents by establishing the one-to-one matching "GEM (Go the Extra Mile) Matching Fund" with overseas suppliers, afforestation projects in Korea and its supplier countries, and planting and forest formation projects. We also cooperate with them to increase the purchase ratio of coal and iron ore from matching suppliers. To resolve social issues during mineral mining, we became the first company in the Korean steel industry to join the RMI in 2020. At the same time, we established the five-step procedures based on the OECD Due Diligence Guidance in order to conduct responsible mineral supply chain management activities. When finding new suppliers, POSCO offers additional points to suppliers that show excellence in resolving environmental and social issues. In addition, we implement a policy of mutual benchmarking with suppliers who demonstrate excellent ESG through regular evaluation, and for suppliers with poor evaluations we work for their improvement through collaboration.

Activity Metric

Code	Category	Unit	Accounting Metrics	POSCO's Response
EM-IS-000.A	Quantitative	metric tons (t), percentage (%)	Raw steel production, percentage from:	The data below include all Korean and overseas worksites corresponding to POSCO's consolidated crude steel production.
			(1) basic oxygen furnace processes	(1) Production volume: 36,907,365, Percentage: 96.5%
			(2) electric arc furnace processes	(2) Production volume: 1,355,865, Percentage: 3.5%
EM-IS-000.B	Quantitative	metric tons (t)	Total iron ore production	This metric is not applicable and is not reported, as POSCO does not own any mines.
EM-IS-000.C	Quantitative	metric tons (t)	Total coking coal production	This metric is not applicable and is not reported, as POSCO does not own any mines.

# SASB(Global work sites)

Code	Category	Unit	Accounting Metrics	POSCO's Response
Greenhouse Gas Emissions				
EM-IS-110a.1		metric tons (t), percentage (%)	(1) Gross global Scope 1 emissions (2) Percentage covered under emissions-limiting regulations	(1) 83,675,676 (2) 92.1% One country (South Korea)
EM-IS-110a.2			Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	With domestic worksites accounting for 92.3% of total emissions, a detailed roadmap aiming for 2050 Carbon Neutrality is disclosed to achieve the reduction goals of 20% by 2030 and 50% by 2040. <a href="#">Direct Link</a>
Air				
EM-IS-120a.1		tons (t)	(1) NOx emissions (excluding N <sub>2</sub> O)	35,936
			(2) SOx emissions	25,502
			(3) Particulate matter emissions	341
			(4) CO emissions	N/A
			(5) Manganese (MnO) emissions	
			(6) Lead (Pb) emissions	
			(7) Volatile organic compounds (VOCs) emissions	
			(8) Polycyclic aromatic hydrocarbons (PAHs) emissions	
Energy Management				
EM-IS-130a.1	Quantitative	gigajoules (GJ), percentage (%)	(1) Total energy consumed	414,385,404
			(2) Percentage of grid electricity	4.2%
			(3) Percentage of renewable source electricity	The renewable energy usage is 6,928 GJ.
EM-IS-130a.2	Quantitative	gigajoules (GJ), percentage (%)	(1) Total fuel consumed	397,275,042
			(2) Percentage coal	N/A POSCO uses coal as a reducing agent (raw material).
			(3) Percentage natural gas	11.3%
			(4) Percentage renewable	N/A
Water				
EM-IS-140a.1	Quantitative	thousand cubic meters (m <sup>3</sup> ), percentage (%)	Total fresh water withdrawn	150,193
			Percentage recycled	32.70%

Code	Category	Unit	Accounting Metrics	POSCO's Response
EM-IS-140a.1	Quantitative	thousand cubic meters (m³), percentage (%)	Percentage in regions with High (40-80%)' Baseline Water Stress	0 In Pohang and Gwangyang where POSCO's domestic worksites are located, Baseline Water Stress is under 40%, so this usage metric is not applicable.
			Percentage in regions with Extremely High (>80%)' Baseline Water Stress	0 In Pohang and Gwangyang where POSCO's domestic worksites are located, Baseline Water Stress is under 40%, so this usage metric is not applicable.
Waste Management				
EM-IS-150a.1	Quantitative	metric tons (t), percentage (%)	Total amount of waste generated	24,109,815 POSCO manages its generation and treatment of waste through Allbaro, the Korean government's official waste disposal system.
			Percentage hazardous	POSCO follows the criteria set forth by Korea's Waste Management Act in sorting and managing the waste generated in Pohang steelworks and Gwangyang steelworks with foreign worksites lawfully managed according to national regulations. The management criteria of designated waste stipulated in each nation's regulations differs from that defined by the SASB. Regardless, the percentage of designated waste regulated by each nation's governmental laws is a total of 9.8% across all worksites.
			Percentage recycled	98.1%
Workforce Health & Safety				
EM-IS-320a.1	Quantitative	incidence rate per 200,000 hours	Total recordable incident rate (full-time and contract, TRIR)	0.077
			Fatality rate (full-time and contract)	0.002
			near miss frequency rate (full-time and contract)	24.83 Based on employees under direct operations, excluding Indonesia PT-KP
Supply Chain Management				
EM-IS-430a.1	Qualitative		Discussion of the process for managing iron ore and/or coking coal sourcing risks arising from environmental and social issues	POSCO is a member of the RMI and is strengthening ESG cooperation with its raw materials suppliers. <a href="#">Direct Link</a>
Activity Metric				
Code	Category	Unit	Accounting Metric	POSCO's Response
EM-IS-000.A	Quantitative	metric tons (t), percentage (%)	Raw steel production, percentage from: (1) basic oxygen furnace processes (2) electric arc furnace processes	The data below includes all domestic and overseas worksites corresponding to POSCO's consolidated crude steel production (42,964,419 tons). (1) Production volume: 40,042,554, Percentage: 93.2% (2) Production volume: 2,921,865, Percentage: 6.8%
EM-IS-000.B	Quantitative	metric tons (t)	Total iron ore production	This metric is not applicable and is not reported, as POSCO does not own any mines.
EM-IS-000.C	Quantitative	metric tons (t)	Total coking coal production	This metric is not applicable and is not reported, as POSCO does not own any mines.

TCFD

Category	Disclosure Code	Category	Index	POSCO's Response
Governance	T0001	Qualitative	Processes by which the board is informed about climate-related issues	p.39-40
	T0002	Qualitative	Frequency by which the board is informed about climate-related issues	p.39-40
	T0003	Qualitative	Whether the board considers climate-related issues when making decisions	p.39-40
	T0004	Qualitative	Monitoring the board to oversee progress against goals and targets for addressing climate-related issues	p.39-40
	T0005	Qualitative	Top decision making organization related to climate-related issues	p.13, p.40
	T0006	Qualitative	Role and responsibility of decision making organization related to climate-related issues	p.13, p.40
	T0007	Qualitative	Structure of decision making organization related to climate-related issues	p.13, p.40
	T0008	Qualitative	Processes by which management is informed about climate-related issues	p.13, p.40
	T0009	Qualitative	How management monitors climate-related issues	p.39, p.40
Strategy	T0010	Qualitative	Describe the climate-related issues the organization has identified over the short, medium, and long term. (including how to divide terms)	p.38
	T0013	Qualitative	Climate-related issues impact on the organization's business and strategy (products and services, supply chains, adaptation and mitigation activities, R&D investment, operation)	p.39-40, p.42-50
	T0015	Qualitative	Explanation on climate-related scenario (when the scenario is linked to the organization's strategy and financial plan)	p.39
	T0016	Qualitative	The organization's strategy that can be affected by climate-related risks and opportunities	p.39
	T0017	Qualitative	Change on the organization's strategy that reflects the climate-related risks (including change over time)	p.39
Risk Management	T0018	Qualitative	Explaining process that identify and assess climate-related risk	p.39-40
	T0019	Qualitative	Explaining management process for climate-related decision making	p.39-40
	T0020	Qualitative	Describe whether climate-related risk identifying process is integrated into the existing risk management system	p.39-40
Metrics and Targets	T0021	Quantitative	Major climate-related risk metrics (water, energy, land usage, waste management, etc.)	p.97-99
	T0022	Quantitative	Direct GHG emissions (Scope 1)	p.38, p.99
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	T0024	Quantitative	Other indirect GHG emissions (Scope 3)	p.99
	T0025	Qualitative	Percentage used to calculate emissions (number of employees, unit production, etc.)	p.38, p.99
	T0026	Quantitative	Metrics and targets on major climate-related risk	p.38



# Verification Statement on 2021 Greenhouse Gas Emission Report



### Verification Target

Korean Foundation for Quality (hereinafter “KFQ”) has conducted the verification of “2021 Report on Quantity of emitted Greenhouse gas Consumption (hereinafter ‘Inventory Report’)” for POSCO Corporation

### Verification Scope

KFQ’s verification was focused on all the facilities which emitted the greenhouse gas during the year of 2021 under POSCO Corporation’s operational control and organizational boundary.

### Verification Criteria

The verification process was based on ‘Rule for emission reporting and certification of greenhouse gas emission trading Scheme (Notification No. 2021-112 of Ministry of Environment)’, ‘Rules for verification of operating the greenhouse gas emission trading scheme (Notification No. 2021-278 of Ministry of Environment)’ and ‘ISO14064-3’ for every applicable part.

### Verification Procedure

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 confirmed through the internal review whether the process before the verification 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;

- 1) The Inventory Report has been stated in accordance with ‘Rule for emission reporting and certification of greenhouse gas emission trading Scheme’
- 2) The result of Material discrepancy satisfied the criteria for an organization that emits more than 5,000,000 tCO<sub>2</sub>-e shall not exceed 2.0% from total emission as per ‘Rules for verification of operating the greenhouse gas emission trading scheme’
- 3) Thus, KFQ conclude that the Greenhouse Gas Emissions of POSCO Corporation in 2021 is correctly calculated and stated in accordance with ‘Rule for emission reporting and certification of greenhouse gas emission trading Scheme’.

(unit : ton CO<sub>2</sub>eq)

Report Year	Emission of Scope1	Emission of Scope2	Total Annual Emission
2021	77,101,095	1,389,117	78,490,205

June 13th, 2022

Korean Foundation for Quality (KFQ)

CEO Ji-Young Song

Ji Young Song

# Third Party's Verification Statement



## Introduction

Korean Foundation for Quality (hereinafter "KFQ") was engaged to conduct an independent verification for "2021 Quantity of GHG emission (Scope3) and Avoided GHG Emissions" reported by POSCO Corporation(hereinafter 'the Company'). This verification provides limited assurance that GHG emission (Scope3) and Avoided GHG Emissions are reported without not significant errors and distortions.

## Verification Scope

The scope of verification under the Company's operational control is as follows:

- GHG emission (Scope3) : Purchased goods and services, Upstream transportation and distribution, Business travel, Employee commuting, Investments, Downstream leased assets
- Avoided GHG Emissions : High-strength automotive steel sheets, Low core loss electrical steel, Blast furnace slag

## Verification Criteria

This verification was conducted based on the following criteria:

- GHG emission (Scope3) : "Technical Guidance for Calculating Scope3 Emission(Greenhouse Gas Protocol)"
- Emission factor : "Emission Factor for Greenhouse Gas Inventories (EPA)". For the emission factor of ships in Upstream transportation and logistics, a domestic standard "Korea LCI DB Information Network(Korea Environmental Industry & Technology Institute)" was applied.
- Avoided GHG Emissions : Internal Calculation criteria of the Company

## Company Responsibilities

The Company is responsible for selecting verification standards, the criteria of the verification & emission calculation and the scope of verification (Scope3) further to calculation of GHG emission and Avoided GHG Emissions.

## Verification Process

KFQ performed verification in accordance with 1S014064-3 (Specification with guidance for the verification and validation of greenhouse gas statements) and the above verification criteria. To obtain limited confidence that the emission has been properly calculated based on accurate data, KFQ planned and conducted the verification through an identification of the calculation result of GHG emission (Scope 3) and Avoided GHG Emissions which were provided by the Company and a cross-check between them.

## Verification Limitation

This verification is not intended to confirm the validity of the calculation criteria itself which was established by the company. Therefore, the verification results contain inherent limitations of uncertainty in the Company's own calculation criteria. Depending on the Company's own calculation criteria, a significant difference can occur in the result of the calculation, and it can affect comparability.

## Limited Assurance Conclusion

Based on verification process, KFQ obtained the following conclusion on the GHG emission (Scope3) and Avoided GHG Emissions results:

- 1) The Company's "2021 GHG emission (Scope3) and Avoided GHG Emissions" was appropriately calculated according to the "Technical Guidance for Calculation Scope 3 Emission (Greenhouse Gas Protocol)" and internal standards.
- 2) Critical errors and omissions were not found in The Company's "2021 GHG emission(Scope3) and Avoided GHG Emissions" in the Carbon Reporting. Parts of the activity data in the process of emission calculation are assumed based on conservative principles to prevent underestimation of the emission.
- 3) It was confirmed that the internal criteria of Avoided GHG Emissions maintains consistency and accuracy in its' internal criteria. Parts of activity data and parameters in the process of reduction effects calculation were assumed based on conservative principles to prevent overestimation of the reduction.
- 4) The final calculated "2021 GHG(Scope3) emission and Avoided GHG Emissions" are as follows:

Criteria	Unit	2021
GHG Emission (Scope3)	Purchased goods and services	3,422,572
	Upstream transportation and logistics	1,605,907
	Business travel	174
	Employee commutes	9,374
	Investments	ton CO <sub>2</sub> 5,747,685
Avoided GHG Emissions	Downstream leased assets	2,087,193
	High-strength automotive steel sheets	2,327,452
	Low core loss electrical steel	4,524,422
	Blast furnace slag	7,650,439

- 5) Therefore, KFQ concludes that "2021 GHG emission (Scope3) and Avoided GHG Emissions" of The Company is correctly calculated and stated.

May 27th , 2022

Korean Foundation for Quality

President & CEO Ji Young Song

Ji Young Song



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SASB
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# Independent Assurance Report on the Identified Sustainability Information in POSCO’s Corporate Citizenship Report (English Translation of a Report Originally Issued in Korea)



## To the management of POSCO Inc.

We have undertaken a limited assurance engagement in respect of the selected sustainability information (the ‘Identified Sustainability Information’) in the POSCO’s ESG Report for the year ended 31 December 2021 (‘the Corporate Citizenship Report’ or the Report) listed below.

## Identified Sustainability Information

The Identified Sustainability Information included in the POSCO’s Report for the year ended 31 December 2021 is summarized below:

- ‘Global Reporting Initiative (GRI) Standards Index’ stated on pages 107 ~ 109
- ‘ESG DATA’ within the ‘ESG FACT BOOK’ heading on pages 98 ~ 104
- ‘Sustainability Accounting Standards Board (SASB)’ within the ‘ESG FACT BOOK’ heading on pages 110 ~ 113

Our assurance was with respect to the year ended 31 December 2021 information only and we have not performed any procedures with respect to earlier periods or any other elements included in the Report and, therefore, do not express any conclusion thereon.

## Criteria

The criteria used by POSCO to prepare the Identified Sustainability Information are ‘GRI Standards with Core Option’ and ‘IRON & STEEL PRODUCERS Sustainability Accounting Standard (SASB)’ (the ‘Criteria’).

## POSCO’s Responsibility for the Identified Sustainability Information

POSCO is responsible for the preparation of the Identified Sustainability Information in accordance with the Criteria. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of Identified Sustainability Information that is free from material misstatement, whether due to fraud or error.

## Inherent Limitations

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities.

## Our Independence and Quality Control

We have complied with the ethical requirements of the Republic of Korea, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Our firm applies International Standards on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

## Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Identified Sustainability Information based on the procedures we have performed and the evidence we have obtained. We conducted our limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised), Assurance Engagements other than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board. These standards require that we plan and perform this engagement to obtain limited assurance about whether the Identified Sustainability Information is free from material misstatement.

A limited assurance engagement involves assessing the suitability in the circumstances of POSCO’s use of the Criteria as the basis for the preparation of the Identified Sustainability Information, assessing the risks of material misstatement of the Identified Sustainability Information whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the Identified Sustainability Information. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

The procedures we performed were based on our professional judgment and included inquiries, observation of processes performed, review of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records.

Given the circumstances of the engagement, in performing the procedures listed above we:

- Interview with the personnel responsible for internal reporting and data collection regarding POSCO’s Identified Sustainability Information to understand their approaches to manage material issues
- Understand the systems and processes in place for managing and reporting the Identified Sustainability Information of Seoul office and iron and steel plants in Gwangyang/Pohang
- Review documents relevant to the risk assessment process, sustainability-related policies and standards, materiality assessment, engagement activities of the stakeholders and others
- Perform inquiries and analytical reviews on the Identified Sustainability Information

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement. Accordingly, we do not express a reasonable assurance opinion about whether POSCO’s Identified Sustainability Information has been prepared, in all material respects, in accordance with the Criteria.

## Limited Assurance Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that POSCO’s Identified Sustainability Information the year ended 31 December 2021 is not prepared, in all material respects, in accordance with the Criteria.

## Restricted Use

This Report is prepared solely for the management of POSCO to assist in obtaining understanding of POSCO’s sustainable management performance and activities. Accordingly, we accept no liability or responsibility to any third party, other than POSCO and its management, who gains access to this report.

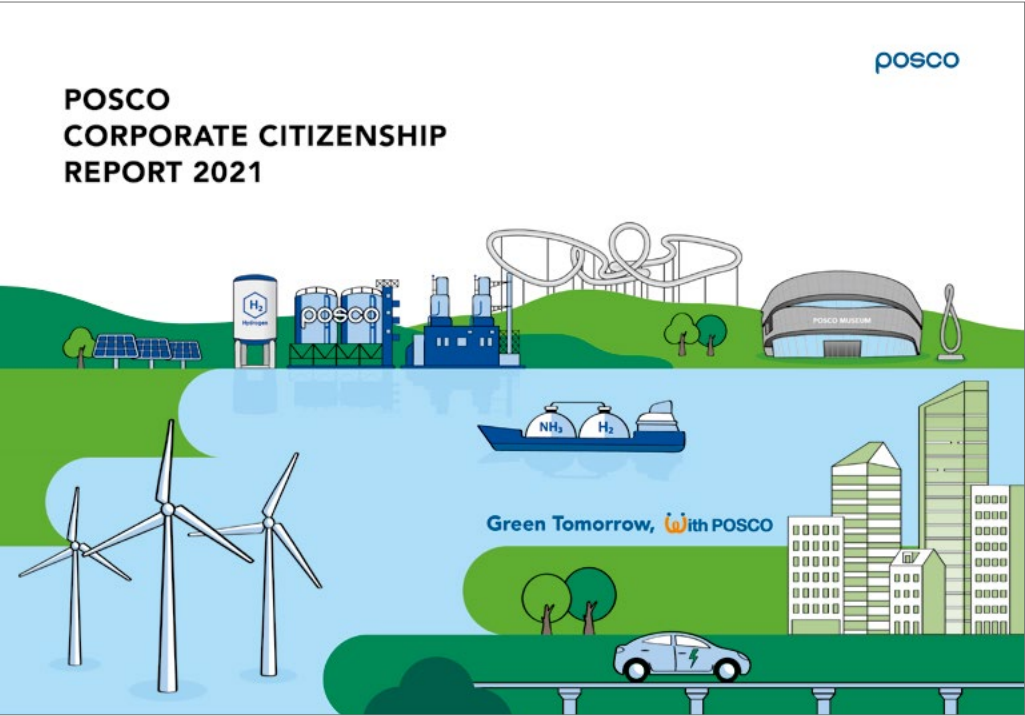
Samil PricewaterhouseCoopers

Seoul, Korea

Hoonsoo Yoon, Chief Executive Officer

8 July 2022

# Preparation of the Report



The 2021 Corporate Citizenship Report cover was designed with the willingness to make an eco-friendly future from the perspective of steel’s total value chain vision slogan “Green Tomorrow, With POSCO.” The cover shows our ambitious goal and vision to operate net-zero steelworks with hydrogen-reduced steelmaking and renewable energy, so as to deliver green steel and build a safer and cleaner future society.

**Overall report preparation:** ESG Management Group, Corporate Citizenship Office  
**Inquiries :** sustainability@posco.com

### This report was prepared through collaboration with

Smart Factory Planning Group	Safety Planning Group
Corporate Planning Group	Research Planning Group
Purchasing and Investment Planning Group	Business Ethics Risk Management Bureau
Corporate Citizenship Strategy Group	Human Resources Group
Labor Planning Group	Human Resources and Corporate Culture Planning Group
Labor and Management Development Group	Finance Management Group
Shared Growth Group	Information Security Bureau
Marketing Support Group	Steelmaking Raw Materials Group
Legal Affairs Office	Environmental Consultation Supporting Group
Health Planning Office	Communication Office
By-product Recycling Group	Carbon-Neutral & Energy Group
Corporate Social Responsibility Group	Carbon Neutral Strategy Group
Iron & Steelmaking Production and Technology Group	Investment Planning & Coordination Group 1
Plant, Equipment and Materials Planning Group	Sales and Production Planning Group
Tax Accounting Group	POSCO Group University
Solution Strategy Group	Environmental Planning Group

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<b>Verified by</b>	Samil PricewaterhouseCoopers	<b>Designed by</b>	designfish



# POSCO

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Green Tomorrow, With POSCO



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Overview

Based on its management philosophy of ‘corporate citizenship,’ POSCO is continuously changing and innovating together with all its stakeholders. POSCO, in addition to creating economic gains, is a leader in addressing social issues and strives to build a role model for sustainable growth. To enable our employees to internalize the management philosophy of corporate citizenship and to establish it as our organizational culture, POSCO created the Charter of Corporate Citizenship that sets out our goals as a sustainable company and our principles of practicing each area of B-S-P (Business-Society-People), and created the Corporate Citizenship Practice Guide that sets out the values and guidelines pursued by each major business unit. POSCO is also advancing its sustainable management system by amending and supplementing the company rules and guidelines that reflect the ESG-related global initiatives. POSCO ESG Policies & Positions, which is to be released this year, provides POSCO’s major ESG policies and positions as a corporate citizen. The environment section (E) sets out our net-zero commitment and the environmental management guidelines, and the social section (S) sets out the safety and health policy, human rights guidelines, and the supplier code of conduct. Lastly, the governance section (G) includes the Code of Ethics, the Anti-corruption Compliance Guidelines, and the Tax Policy. By fully disclosing its policies and positions for each area of ESG, POSCO seeks to communicate its commitment to ESG management and its principles. All POSCO employees promise to observe and comply with its ESG policies and positions and going forward, plan to continue to make improvements in line with the stakeholders’ demands. The ESG Policies & Positions in this report apply equally to all of POSCO’s major business sites. As a corporate citizen, POSCO communicates with all stakeholders with whom it conducts business so that they will respect and comply with its ESG policies and positions.

- POSCO respects and supports the globally accepted international human rights standards including the Universal Declaration of Human Rights (UDHR), the UN Guiding Principles on Business and Human Rights, the UN Global Compact Ten Principles, and the OECD Guidelines for Multinational Enterprises.
- To support the efforts of the global community that is inclined to achieve sustainable development based on the UN SDGs, POSCO will continue to improve its policies and positions, communicate and work harmoniously with all of its stakeholders including customers, employees, and shareholders.
- This report was prepared based on the POSCO Corporate Citizenship Report and the POSCO ESG Policies & Positions. POSCO owns the copyright, and this report may not be duplicated, in part or in whole, or provided to a third party without its prior consent.



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# Environment (E)

## Net-zero Commitment

### POSCO's Net-zero Commitment by 2050

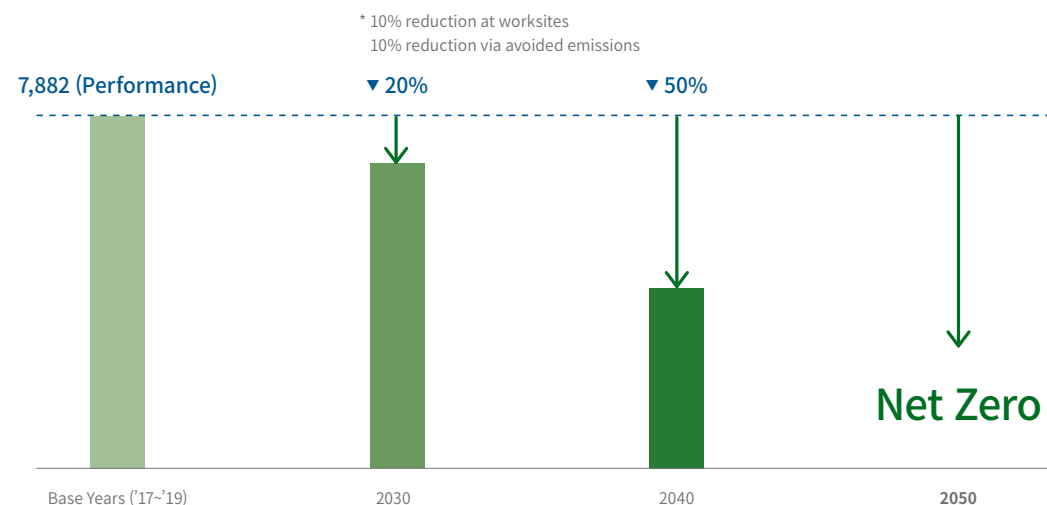
The UN IPCC(Intergovernmental Panel on Climate Change) Special Report, published in October 2018, The UN Intergovernmental Panel on Climate Change (IPCC) Special Report, published in October 2018, highlights the importance of limiting the expected global average temperature increase within 1.5°C above the pre-industrial levels by 2100, in order to control numerous threats posed by climate change. The governments of each country, including Korea, have since pledged to achieve carbon neutrality by 2050. Following the 2050 carbon neutrality pledge, major investment groups and their clients have pledged to achieve carbon neutrality and are demanding investment firms and suppliers to participate in this move. POSCO also recognized the urgent need to respond to climate change and established the POSCO Net-zero Commitment 2050 vision in December 2020 with the Board's approval, and published the Climate Action Report in accordance with the guidelines of Task Force on Climate-Related Financial Disclosures (TCFD). Through these efforts, POSCO is trying to fulfill the role of good corporate citizen while increasing its competitiveness by transitioning into a low-carbon production line and restructuring its business model. With the goal of achieving the net-zero target by 2050 based on its hydrogen-based steelmaking, POSCO has set a path towards 20% carbon emission reduction by 2030 (10% via worksite reduction, 10% via avoided emissions) and 50% by 2040. To specify the vision of our net-zero commitment and to enhance our ability to execute it, we created the Fundamental Roadmap to Net-zero Commitment 2050 that includes mid to long-term comprehensive strategies covering raw materials, investments, energy, and technology development. The short- to mid-term plan to reach the net-zero target is to introduce electric furnaces before

commercializing hydrogen-based steelmaking technology; to take advantage of current operation facilities to use low carbon materials; and to develop a bridge technology such as low HMR operation<sup>1)</sup> and CCUS<sup>2)</sup> technology, in order to reduce coal and energy consumption during processing. In the mid- to long-term, we plan to achieve the net-zero target through the phased introduction of renewable-energy-based HyREX<sup>3)</sup> and electric furnaces in step with the development speed of hydrogen-based steelmaking technology.

- 1) Low HMR operation: Operation technology that increases the ratio of scraps instead of hot metal (HMR) to reduce carbon emission.
- 2) CCUS technology: CO<sub>2</sub> Capture, Utilization & Storage, CO<sub>2</sub> capture & storage technology.
- 3) HyREX (Hydrogen Reduction): Hydrogen-based steelmaking technology based on POSCO's FINEX fluidized-bed furnace technology that produces molten iron using powdered iron ore and hydrogen.

### CO<sub>2</sub> Reduction Goals

(Unit: 10,000 tons CO<sub>2</sub>)





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## Environmental Management Guidelines

POSCO is responding proactively to environmental issues such as climate change, particulates, waste, and chemicals. In addition, based on our corporate citizenship management philosophy, we have established environmental guidelines that are rooted in our corporate rules and regulations, and environmental management policies.

To minimize our negative impact on the environment during business and production processes, we are actively promoting environmental management and expanding it to our supply chains and partner companies. In January 2010, we published our first Environmental Manual, followed by POSCO Group Integrated Environmental and Energy Policy, an amended version in June 2019, and have since been in compliance therewith. Moreover, we have been certified by internationally recognized environmental standards including ISO 14001 and 50001 and are regularly renewing our certifications.

POSCO complies with the environmental laws and regulations applicable to the Korean and overseas worksites and strives to continuously improve its environmental performance by systematically monitoring environmental impacts and preventing pollution. In addition, we are minimizing the negative impact on the environment during our business and production process and expanding the scope to our supply chains and partner companies.

### Worksite Environment Management

On its worksites, POSCO is managing its environmental goals by linking them with the key performance indicators (KPIs) of its environmental departments and officers. We have established the environmental standards for each area of environmental management, such as air, waste, and water quality, and have implemented measures such as education and training, establishment and management of guidelines, and internal auditing. In addition, we are applying eco-friendly production processes and optimal prevention technologies to minimize pollutant emissions at our worksites.

### Production Operation and Maintenance

POSCO monitors and manages the environmental impacts that occur during the operation and maintenance of production facilities to make improvements. In addition, for reference at work, we have established an environmental management manual for each production process to comply with related laws and to improve the environment.

### Production Development, Services, and Logistics

To achieve the net-zero target by 2050, POSCO is making avoided emission efforts by not only reducing greenhouse gas (GHG) emissions at worksites but also by extending its supply of eco-friendly products. We are expanding our portfolio of low-carbon steel products, such as high-tensile steel sheets and high-efficiency electrical steel sheets that contribute to reducing the weight of automobiles. In addition, POSCO strives to minimize greenhouse gases and environmental impacts that may occur during product transportation.

### Waste Management

POSCO established and applies waste management guidelines from the waste generation stage to final disposal. The guidelines include work scope, organization and responsibilities, separate collection and storage facilities for waste, and necessary measures in the event of environmental pollution.

### Selection and ESG Assessment of Suppliers

POSCO enacted the POSCO Supplier Code of Conduct based on global ESG standards such as the UN Global Compact Ten Principles and the Responsible Business Alliance (RBA), and ensures that its suppliers comply with them. In addition, we reflect ESG factors during the annual supplier performance evaluation to proactively manage environmental risks throughout the supply chain.

### New Projects and Mergers & Acquisitions (M&A)

In assessing new business and investment opportunities, POSCO examines expected qualitative and quantitative ESG benefits, as well as investment risks and response measures. Through our environmental management guidelines and environmental impact assessment, we strive to reduce the environmental risks generated by new businesses. In addition, when analyzing an M&A deal, we conduct a due diligence to identify ESG-related risks including the environmental risks and take preemptive actions.



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Operation of Environmental Management System

Since acquiring the ISO14001 (the international environmental management standard) certification in 1996, POSCO receives annual suitability evaluations from a third party institution and conducts internal inspections at least twice a year under the supervision of the environmental department. The inspection results are reported to the senior management level and incorporated in the creation of environmental strategies and goals.

Environmental Product Declaration (EPD) Certification

POSCO, for the first time in the Korean steel industry, established the Life Cycle Inventory Database (LCI DB) of steel products, which includes the environmental impacts caused during the entire life cycle of steel products. In addition, based on LCI DB, we are promoting EPD certification at home and abroad for the World Premium (WP)<sup>4)</sup> products produced by POSCO.

4) World Premium (WP): POSCO’s own proprietary products that are developed or under development for the first time in the world.

Air Pollution Emission Reduction Policy

To reduce air pollutants, POSCO has established in-house goals that are stricter than the legal standards, and systematically manages its environmental performances.

Water Resources Policy

POSCO strives to manage water resources by optimizing water management and expanding wastewater recycling. As KPIs, we selected surface water consumption reduction and effluent water quality management indicators to manage our performance. To reduce the amount of wastewater, we are increasing the recycling ratio of wastewater discharged from processing. Furthermore, we are monitoring the national water resources policies, anticipating regional regulatory changes, and creating response scenarios to evaluate water supply chain risks before they occur. We operate seawater desalination facilities and reuse treated water from sewage treatment facilities to contribute to resolving water shortages in local communities and securing a stable supply of industrial water.

Our Position on Biodiversity

POSCO understands the importance of biosphere restoration and biodiversity protection, and sets it out in its Practicing Guidelines for the Code of Ethics. Accordingly, POSCO investigates the potential outcomes that its projects may have on biodiversity of the adjacent ecosystems and takes actions to minimize adverse impacts.

New Projects

In carrying out new projects such as facility expansions, we will prevent and minimize factors and causes that threaten biodiversity and if necessary, repair and offset the damage. We will also try to mitigate biodiversity losses and conduct surveys to monitor potential impacts. We will strive to manifest our stance above not only to our worksites but also to our primary and other supply chains. We are aware of the international conventions on biodiversity and the protection of land (including, but not limited to, the Convention on Biological Diversity, the Ramsar Convention, and the Convention Concerning the Protection of the World Cultural and Natural Heritage) and the IUCN<sup>5)</sup> Guidelines (including, but not limited to, the IUCN Guidelines for the Protected Area Management Categories and the IUCN Guidelines for Planning and Monitoring Corporate Biodiversity Performance), and we will comply with the national and local legal requirements at our worksites located in the areas where the conventions are applicable. Should our projects cause a damage, reduction, or degradation in the protected areas covered by the international conventions, we will restrict the reach of our worksites and reconsider the project. At our worksites that encompass the natural and important habitats, we will prevent and minimize net losses, change our plans, or investigate alternative areas so as not to adversely affect biodiversity. Prior to implementing new projects, we conduct environmental impact assessments in accordance with the relevant laws and regulations, and identify and prevent factors that threaten biodiversity, including all endangered species. We ensure that our activities do not negatively impact biodiversity values such as ecosystems and critical habitats. In addition, we only proceed with our projects after consulting with the local residents and communities regarding land use.

5) IUCN: The International Union for Conservation of Nature and Natural Resources.



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Worksite Management

At worksites that harbor critical habitats, POSCO will strive to achieve no net loss and net positive impact in terms of biodiversity. At our largest worksites Pohang Steelworks and Gwangyang Steelworks, we will regularly monitor the adjacent ocean water quality and sediment pollution level, and at the same time, we will conduct monitoring activities to improve the local environments. If necessary, we will collaborate with professional agencies to launch a professional investigation to measure the impacts on local biodiversity.

We identify the protected areas, regions with high biodiversity value, and endangered species in the vicinity of our business and project developments, and use this information as important sources for developing, implementing, and monitoring each project’s biodiversity management plan. If a conservation area recognized under the international standards such as the World Heritage or the Ramsar Convention on Wetlands, or a protected area governed by an international convention is established within, around or adjacent to one of our existing worksites, we will verify that our activities in the worksites do not adversely affect the value of such protected areas.

By-product Recycling

POSCO actively discovers and recycles steelmaking and marine by-products that can replace natural resources. For Example, POSCO is continuously promoting sea forestation projects to restore the marine ecosystem. The Triton® fish shelters made from steel slag are rich in minerals like iron and calcium, and as such are effective in restoring marine ecosystems by accelerating marine plankton proliferation and algae spore adhesion. Since 2010, POSCO has installed about 7,000 Triton fish shelters in Korean waters. In addition, the Clean Ocean Volunteer Group, made up of employee volunteers donating their talents, strives to preserve the underwater ecosystem through approximately 60 water purification activities held each year, and we systematically support our employees’ biodiversity-related volunteer activities.

Endangered Species Protection

We will consider supporting local, national, and global biodiversity conservation initiatives for the protection of endangered species. By building substitute habitats, avoiding construction during hibernation seasons, and installing temporary panels that are mobile and soundproof, POSCO strives to protect endangered species, including 1 species of mammal (otter) and 11 species of birds (whooper swan, swan, bean goose, brent goose, kestrel, sparrow hawk, Korean buzzard, osprey, eagle, Saunder's gull, and Eastern curlew), near its worksites and to preserve the adjacent natural ecosystem. Further, we conduct environmental training sessions for our employees, and stakeholders to heighten their awareness of the need for biodiversity protection.

Our Position on No Deforestation

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POSCO, as a leader in the prevention of deforestation, will continue to implement policies intended to protect the earth by expanding the recycling of industrial by-products and expanding the investment in GHG reductions. Through our sustainable environment policy, we will try to achieve zero net deforestation by 2050 as we keep our Promise of Compensation through Reforestation.

- POSCO will not build any new worksite that destroys a forest, and upon termination of the existing projects, will try to restore green space including forests.
- At POSCO's worksites, we will increase the recycling rate of by-products (98.6% in 2021) and expand investment in GHG reduction.
- If necessary, POSCO will team up with the professional agencies to restore forests and green space near its worksites.
- To minimize our negative impacts on the environment during our projects and production processes, POSCO will promote diverse activities and endeavor to expand the scope of such activities to our supply chains and business partners.

Monitoring

To respond to forest risks, we will establish and implement plans for forest formation and greening within our worksites, and continue to monitor all related performances through environmental impact assessments. In addition, we will continue to inspect and supplement our suppliers’ forest protection activities through regular supplier relationship management (SRM).

If necessary, we will secure a budget for cooperating with professional agencies and strengthen our related in-house capacities.

Forest Restoration and Green Space Creation Performance

POSCO is committed to building a healthy ecosystem for local areas and communities near its worksites. Recently, our Pohang Steelworks and Gwangyang Steelworks have invested approximately KRW 44 billion and KRW 28 billion, respectively, toward forestation projects and zero net deforestation near the worksites. As a result, there are approximately 6.9 million or more plants in 22% of both steelwork sites, and each year, more than 30,000 plants are cultivated. Furthermore, POSCO and the Korea Forest Service have joined hands to restore forests and respond to the climate change.





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# Social (S)



## Safety and Health Policy

POSCO considers safety its top priority in management. We create a culture that prioritizes safety based on rigorous and sustainable safety management systems, and foster top-notch safety experts. In addition, in line with our philosophy that ‘a company is only as healthy as its employees,’ we mainly promote our occupational health-related obligations in following three areas: health improvement, workplace environment, and disease treatment.

POSCO has set up an in-house communication system that allows all employees to readily participate and is trying to build the world’s finest safety culture through employee-led autonomous safety and health activities. To this end, POSCO applies new smart technologies such as the Internet of Things (IoT) and strives to create a workplace environment that can scientifically and effectively protect its employees' safety and health. In addition, to promote the health and safety of our stakeholders, including our business partners, we encourage their participation in safety and health activities.

To effectively implement our safety and health policy, POSCO establishes and implements goals and action plans, and operates an in-house review system that evaluates them regularly. On the basis of our compliance with safety and health laws, we set and operate even more rigorous standards of our own to ensure safety during the installation, operation, and maintenance of the facilities, machinery, and equipment.

### Safety and Health Guidelines

As a corporate citizen growing together with society, POSCO prevents disasters and improves

the health and quality of life by creating a safe and pleasant workplace environment for all of its employees. To this end, we established the following basic safety and health guidelines for all POSCO actions, and operate a safety and health management system to achieve them.

- Safety takes priority over production, quality, and speed; we strive to create an environment in which all POSCO employees can work safety and comfortably.
- In order to prevent the risk of disasters and diseases for all employees of POSCO and its business partners, we identify hazards and risk factors in advance and seek continuous improvement.

### Operation of Safety and Health Management System (ISO45001)

POSCO has autonomously and systematically operated all safety and health control-related actions and obtained the ISO45001 certification, which is the international standard for safety and health management system. Together with the ISO45001 certification, we establish safety and health strategies and goals based on the PDCA Cycle<sup>6)</sup>, and maintain a systematic and continuous safety and health management system.

6) PDCA Cycle: The project management method that continuously improves work performance by repeating the 4 steps of Plan-Do-Check-Act.

### Safety and Health Education and Training

- Every year, to raise awareness and to minimize risks of safety of its employees and related suppliers, POSCO conducts legally mandatory safety and health training sessions to its employees and supports training programs of the related suppliers. Furthermore, we conduct customized training sessions to foster safety and health capabilities requisite of each position and duty.
- Further, by operating the Global Safety Center (Safety Experience Center) and giving opportunities to experience the safety drills not only to our employees but also to the community at large, we strive to cultivate the awareness of safety in society as a whole.

Occupational Safety Management System

Centered around 3 pillars of safety system, culture, and workforce, POSCO is strengthening a management system for occupational safety.

Adopting a vigorous and sustainable safety management system

- ◇ Adopting the key measures pursuant to POSCO’s safety management system on site in the early stage
- ◇ Strengthening the safety management processes for POSCO’s business partners including partners, contractors, and suppliers.
- ◇ Systematically managing safety based on a system of operating an integrated safety management platform for employees and contractors.
- ◇ Operating a safety budget on an ‘execution first, settlement later’ basis to reduce hazards and risks in the early stage

Creating a safety-first organizational culture

- ◇ Establishing a workplace culture that prioritizes safety in all on-site works via a supportive community and safety audit measures
- ◇ Vitalizing two-way communication with representative bodies and POSCO’s business partners via the Industrial Safety Committee and the Joint Labor-Management Committee
- ◇ Building a workplace infrastructure that prioritizes safety, environment, and health

Fostering top-notch safety professionals

- ◇ Enhancing the capacity of and recruiting safety management personnel such as safety division managers, safe environment directors, and safety keepers
- ◇ Reinforcing safety education and training opportunities for all employees of POSCO and its business partners

Occupational Health Management System

In line with its management principle that ‘a company is only as healthy as its employees’, POSCO is promoting its key policies in the following three areas to create a pleasant workplace culture that prevents illness of its employees.

Creating a pleasant workplace environment

- ◇ Setting up a chemical management system based on an MSDS<sup>7)</sup> scheme
- ◇ Assessing the workplace environment and reducing hazards and risk factors

- ◇ Implementing measures to prevent musculoskeletal disorders
- ◇ Enhancing the functions of protective equipment

7) MSDS: Material Safety Data Sheets.

Building an early disease detection system

- ◇ Physical examinations (general/special/premium screening)
- ◇ Disease prevention and treatment (treatment at affiliated clinics, physical therapies, and vaccinations)
- ◇ Establishing and operating a system to prevent and control infectious diseases such as COVID-19

Health Enhancement Measures

- ◇ Measures to improve lifecycle (no smoking/drinking, exercise, nutrition)
- ◇ Managing persons who are prone to chronic diseases, as identified by healthcare providers
- ◇ Operating mental health improvement and counselling programs

Human Rights Guidelines

POSCO observes and supports the globally recognized international human rights standards, such as the UDHR, the UN Guiding Principles on Business and Human Rights, the UN Global Compact Ten Principles, the OECD Guidelines for Multinational Enterprises, and the Fundamental Conventions of the International Labor Organization (ILO).

All humans have the right to be treated with dignity. This includes the right to life and physical safety, freedom of ideas/expression/religion, freedom of association, work and home life balance, guarantee of privacy, food and water safety and security, prohibition of torture/slavery or forced labor, the right to fair and decent working conditions, and the right not to be subject to unfair discrimination. Since adopting the Code of Ethics that reflects its human rights policy in 2003, POSCO has made efforts to prevent human rights violations and to take adequate measures to prevent and address adverse human rights impacts that may occur in the course of its business management activities and business relations. Our commitment to human rights was further solidified in 2019 when we released our Charter of Corporate Citizenship.

### Our Basic Position on Human Rights Management

To fulfill its responsibility of observing human rights and to meet the expectations of its stakeholders, POSCO takes the following basic positions in relation to human rights management:

- Complies with laws in all jurisdictions where POSCO does business and observes the internationally recognized global human rights standards.
- Finds ways to comply with the internationally recognized human rights standards when local regulations conflict with such standards.
- Treats risks that may cause severe human rights violations as critical business issues.

#### Risk management for cultivating a human rights culture

POSCO respects the human rights of all of its employees, and in order to prevent and mitigate potential risks, we prepare human rights guidelines and a risk management system in line with the international human rights standards and our internal regulations, and share the results with the public.

- ◇ POSCO takes preemptive actions against business management activities that may cause adverse impacts to human rights; should a violation occur, POSCO will implement adequate measures.
- ◇ Beyond ensuring that it does not directly violate human rights or contribute to human rights violations, POSCO makes efforts to prevent and mitigate adverse human rights-related impacts that occur or may occur in business relations, such as in supply chains.

#### Obligation to respect human rights

POSCO's human rights policy applies to all of its employees, and we recommend, and if necessary, support our suppliers and partners to comply with the international human rights standards and our human rights policies. Furthermore, we respect the rights of all of our stakeholders, and try not to cause any potential violation of such rights.

#### Fundamental principles

- ① Prohibition of Discrimination and Harassment
  - POSCO does not discriminate in terms of employment terms and conditions, such as employment, promotion, education, compensation, or benefits based on race, nationality, sex, age, educational background, religion, region of origin, disability, marital status, or gender identity.
  - POSCO guarantees the conditions of employment that observe statutory working hours, maintain appropriate working hours, and provide reasonable remuneration for overtime work for a lifestyle that maintains human dignity.

- POSCO provides educational opportunities to all its employees, respects their cultural differences, and maintains a proper workplace environment for them to focus on their work.
- POSCO does not permit verbal, physical, or visual behaviors that are offensive to others, including sexual harassment that violates individual human rights, and protects privacy and personal information of others.
- POSCO conducts disciplinary actions by establishing the facts of an employee's misconduct through procedural fairness on the grounds of relevant regulations, such as its employment rules, personnel regulations, and reward and punishment guidelines.

#### ② Prohibition of Forced and Child Labor

- POSCO is committed to ensuring that work is not performed involuntarily through psychological or physical coercion.
- With regard to the working conditions for minors and the minimum age requirements, POSCO observes the labor laws of applicable countries and international labor standards.

#### ③ Freedom of Association and Guarantee of Right to Collective Bargaining

- POSCO abides by the Constitution and the Trade Union and Labor Relations Adjustment Act (Labor Relations Act), which are the basis of our human rights policy; strives to observe and guarantee the rights of its employees; and protects their freedom of association, their right to organize, and their right to collective bargaining.

#### ④ Occupational Safety Guarantees

- POSCO builds a culture that is committed to workplace safety by ensuring that all of its employees work in a safe environment and takes adequate measures to address any safety risk that has been identified. In addition, we support our partners establish safety management systems.

#### ⑤ Environmental Right Guarantees

- POSCO acknowledges that the environment and energy are core elements of its business activities, and strives to establish a sustainable, low-carbon, eco-friendly economy as a corporate citizen to grow together with society.
- By making efficient use of natural resources and promoting the reuse of its by-products, POSCO makes efforts to restore natural habitats and preserve biodiversity.

#### ⑥ Protection of Local Residents' Human Rights

- POSCO manages its business activities to ensure that the human rights of local residents, such as their environment, safety and health, and freedom of residence, are not violated. Moreover, POSCO collects opinions in compliance with the relevant laws and regulations to observe freedom and the traditional values of a local community.

- Workplace security personnel should not engage in an offensive behavior, including those that violates human rights, and should comply with local laws and international standards.

- ⑦ Protection of Customers' Human Rights
  - To preserve the life, health, and safety of its customers, when offering its products and services, POSCO exercises due caution based on the statutory standards.
- ⑧ Responsible Supply Chain Management
  - POSCO supports all of its suppliers and partners to comply with the human rights protection obligations.

### Human Rights Due Diligence (HRDD) Process

POSCO identifies human rights violations to prevent and to mitigate their negative impact, and if necessary, conducts an HRDD to fulfill its commitment to human rights protection. The due diligence procedure includes identifying and evaluating an actual/potential human rights impact, responding to the identified issues, documenting the response measures, and communicating with the stakeholders about how it was handled.

An HRDD takes the following into consideration:

- POSCO includes, in its HRDD, adverse impacts related to human rights that may occur directly or indirectly in our business management activities and business relations.
- POSCO considers, in its HRDD, various factors, such as the size and location of a worksite, human rights related risks, nature and substance of the business, and local political and economic circumstances and cultures.
- POSCO perceives that with the changing corporate actions and business operation environment, the human rights risks will gradually be affected, and POSCO continuously applies this belief in real life.

### Due diligence method

POSCO endeavors to identify and examine any actual and potential negative impacts on human rights in domestic and overseas business management activities and business relations according to the following processes:

- ◇ When a human rights risk is detected at a major worksite in Korea or abroad, an HRDD will be conducted to assess the situation and to generate corrective measures.
- ◇ In principle, a due diligence will be conducted by an in-house professional, but if necessary, it may be conducted with an assistance of a third-party professional.
- ◇ Depending on the circumstances, practically, the interviews will be conducted with groups that may

potentially be exposed to the impact at issue and with the stakeholders.

- ◇ An HRDD will identify potential and actual impact. With regard to potential impact, the results of assessment will be disclosed company-wide and based on the relevant procedures performed, the prevention and mitigation measures will be taken. Remedies and solutions should be identified against the actual impact that has already taken place.
- ◇ An HRDD will be conducted by using a checklist that diagnoses the essential elements of human rights management.

### Response and follow-up

In order to prevent and mitigate potential adverse impact on human rights, a response system will be established and follow-up measures will be implemented based on the factual findings of an HRDD.

- ① Establish an Internal Response System
  - For the purpose of resolving the identified issues, to clearly outline the roles and responsibilities of the relevant departments.
  - To properly apply the internal decision-making, budget allocation and monitoring procedures to effectively respond to the identified impact.
  - To ensure that the relevant departments understand the HRDD-identified issues and to manage and address them as critical issues.
- ② Follow-up Measures and Remedies
  - When there is an actual or potential adverse human rights impact, necessary and feasible measures will be taken to prevent and mitigate it.
  - Even with the best policies and procedures in place, when there is an unforeseen adverse impact, efforts should be made, either alone or in collaboration with other entities, to correct the adverse impact.
  - Even if POSCO is not directly responsible for the human rights violation, when an adverse human rights impact caused by other entities (i.e., supplier) is associated with its operations and productions, and services, POSCO will perform its prescribed role to remedy the impact.
  - If we have the power to prevent and mitigate a human rights violation, we will make a use of it; otherwise, we will collaborate with other relevant entities to reinforce our power.
  - As an effective means of remedy, a grievance handling system will be open to the stakeholders.

### Communication with the stakeholders

POSCO collects the stakeholders’ opinions on whether its actions to address human rights violations were appropriate and takes responsibility for explaining the results of its human rights impact assessment and responsive measures.

- ◇ To communicate with the stakeholders (including individuals and investors) on the basis of responsibility and transparency, and consider various means of communication, such as in-person meetings, official publications (e.g., Corporate Citizenship Report, Audit Report), and online channels (e.g., official company website, helpline, Corporate Citizen Love Letter), to make information easily accessible to the stakeholders.
- ◇ When releasing official publications, to include the actual and potential adverse impact, and to consider an independent review process to enhance the credibility.
- ◇ To try providing information that will be helpful to the stakeholders in their evaluation of whether our responses are appropriate in connection with certain human rights impact.

Integration and system improvement

Practical improvements to the human rights management will be induced by actions to integrate the HRDD results in the organizational culture and system improvement.

- ◇ To engage in activities designed to integrate human rights management into the organizational culture by conducting a training on the necessity of and the norms related to human rights management for all employees, and sharing the successful and unsuccessful human rights management practices with them.
- ◇ To engage in activities that will continuously improve the human rights management system, such as seeking professional advice, communicating with the stakeholders, and spotting the areas that need improvement through the implementation of the system.

Human Rights Grievance Handling Process

As an effective means of remedy, POSCO offers a grievance handling program for its stakeholders. The grievance handling program performs the following important functions in connection with our commitment to observe human rights:

- To facilitate the identification of adverse human rights impact and to provide a channel that allows the directly affected stakeholders to raise concerns
- To control a proliferation of human rights threats by collecting grievances and directly offering remedies in the early stage
- To identify and addresses weaknesses in human rights policy and procedures by analyzing their status quo

We have channels such as the Ethics Counseling Center (helpline) and the Center for Reporting Unethical Behavior (hotline) for the adversely affected individuals and local communities, and we try to promptly

address and remedy any issues raised. We strictly adhere to the system of protecting those who file a grievance so that none of our employees and stakeholders will be subject to any disadvantage. [File a grievance to: [humanrights@posco.com](mailto:humanrights@posco.com)]

Our Position on Human Resource (HR) and Labor Management

Recruitment, Appraisal, and Compensation

Recruitment

POSCO recruits qualified individuals who have the knowledge and skills requisite of our corporate citizen. In principle, we hire through open recruitment, and in consideration of our strategic directions and the hiring situation, we select ‘creative talents with a practical and caring mindset.’ In accordance with our systematic and professional screening procedures and standards, we evaluate the applicants’ competence and skills objectively and treat all applicants fairly. After the initial review of their applications, we screen the applicants’ work-related basic competence and character through the POSCO Aptitude Test (PAT). The first round of interview focuses on the applicants’ knowledge and expertise in the areas for which they apply, and the second round of interview confirms the applicants’ character and fitness within our organization so that we can hire a qualified new talent who corresponds to our model talent.

Appraisal and reward

- ◇ POSCO has a fair and objective appraisal system in place to compensate personnel based on their performance. Prior to conducting an appraisal, both the appraisee and the appraiser pledge a ‘fair appraisal’, and the appraisee may raise an objection to the results of his/her appraisal through separate procedures. For supervisors, these multi-source appraisals with colleagues and teammates allow them to reflect on and improve their leadership skills, including their practice of the management’s philosophy, communication abilities, and work methods. To assure objective and fair appraisals of employees by supervisors, we conduct regular training sessions on the appraisal criteria and methods.
- ◇ In consideration of the internal and external factors, without any discrimination based on gender, wages may be differentiated according to the employees’ individual appraisals. We also offer bonuses to outstanding employees through the Variability Management Performance System, which are based on the company management’s overall success.



Appraisal process

- ◇ POSCO conducts regular appraisals (once a year) for all permanent employees based on its fair and systematic standards. Based on the work performance and self-appraisal results prepared by the employees themselves, appraisals are carried out several times to systematically measure the performance of each employee. Regular appraisals rate the employees' work performance, competence, qualifications, and ethical awareness, and the results are used in their promotions and trainings, as well as their compensation, which applies the differentiated compensation system based on performance.
- ◇ Furthermore, by operating an appraisal system that allows our employees to input their work performance and supervisors to provide coaching, we provide support so that the coaching and feedback on work is available at all times.

Our position on wage

- ◇ POSCO's wages consist of base salary, benefits, and incentives, and a base salary is determined by each employee's work-related competence and performance. In addition, our employees' wages are thoroughly managed to ensure compliance with the provisions stipulated in the labor relations laws and regulations of each country or region. We conduct annual wage negotiations with labor unions.
- ◇ Wages are fully paid in cash, and overtime pay is provided to the employees who exceed their statutory working hours pursuant to the standards set by national or local labor laws.

Our position on working hours

- ◇ POSCO observes all laws regarding the conditions of employment, including base hours, annual paid leave, and overtime hours, and complies with the written agreements made with the workers' representatives. All overtime work is voluntary and should be performed in accordance with the standards set by the national or local labor laws.
- ◇ To effectively manage worker fatigue, the working hours, shift patterns, and break hours are determined in accordance with the relevant laws and regulations, and all workers are provided with appropriate break hours for meals and rest. To create an autonomous and flexible workplace environment, we have a flexible part-time work and work-from-home programs in place for certain positions.

Workplace Environment

Improving employee satisfaction

POSCO conducts a Great Work Place (P-GWP) survey every year to evaluate and improve the workplace culture of its employees around the world. The P-GWP results are delivered to every department so

that all of us can contribute to making POSCO a great place to work.

Young Board

POSCO operates the Young Board as a way to promote the CEO's management philosophy by implementing an organizational culture rooted in trust and creativity, and to emphasize communication. The Young Board members are selected from various departments including production, technology development, marketing, and management support, and they propose ideas to make improvements in the areas related to organizational culture, such as creation of a safe workplace environment, innovation of work methods, and revitalization of communication between different generations and positions.

Employee Benefits

Social club support

POSCO, through its Dongho Dongrak social club program, supports the hobbies and self-development of its employees. There are social clubs of various interests, ranging from sports, such as tennis and soccer, to cultures and academics, such as movie nights and foreign language classes. While enhancing their individual competences and creativity through social clubs, our employees are also contributing their own talents and actively performing volunteer works. Going forward, POSCO plans to continue supporting social clubs to foster a happier workplace culture that promotes diversity.

Building a Healthy Labor-Management Culture

Co-dependent labor-management relationship

POSCO abides by the Constitution and the Labor Relations Act, which are the basis of its human rights policy, and strives to observe and guarantee the rights of its employees. Since its inception, POSCO has continued its tradition of co-dependent labor-management relationship under its philosophy of 'partners in building a better future.' Currently, there are two active labor unions at POSCO, with the POSCO Labor Union having the status of a bargaining representative union. Based on our labor-management relationship, the labor force and the management lead an organizational culture rooted in trust and harmony and actively participate in corporate citizenship programs. Separate from the labor union, pursuant to the Act on the Promotion of Employees' Participation and Cooperation, we have created and operate a Labor Management Council. While striving for a co-development of the employees and the company and an enhancement of the employee benefits, the

Council promptly addresses the employees’ grievances and complaints and explains to the employees the company’s management status quo and policies to create empathy about business management among the employees.

## Human Capital Development System

POSCO operates various programs aimed at strengthening its employees’ professional skillsets. These programs help each employee to grow through work, networking, and learning.

### Development of Field-oriented Technical Expertise and Human Capital

To train world-class field technicians, POSCO operates a POSCO Master System and a Technician Level (TL) System. Over time, field technicians steadily improve their TL level through performance improvements, and through evaluations, are appointed a POSCO Master for having the best skillsets.

### Career Development

POSCO fosters the next generation of insightful business leaders, and to improve the field technical expertise, actively supports its employees’ career development. Based on the Career Development Plan (CDP) model for each area of practice, the office staff members and the engineers devise career development plans themselves. New hires first gain experiences in the same practice area for a certain period of time, then they may expand their careers to other practice areas. To promote this self-led career development for its employees, POSCO encourages the employees to have interviews with the department heads every year and takes a quarterly company-wide survey on work-related factors. Technical field staff members, by regularly rotating within their departments and positions, strengthen their technical expertise and ability to respond to an emergency. Outstanding employees are trained in the production process management to eventually become field supervisors.

### Competence Strengthening Program and Customized Training Support

POSCO focuses on nurturing professionals to transfer technological knowledge in line with changes in the workplace environment, and it offers customized leadership training programs to strengthen the

supervisors’ leadership skills. To develop future talents, POSCO offers position-customized education programs, including class learnings and e-learning courses.

### New Collar Level Certification System

In this digital transformation era, POSCO plans to identify the employees who ‘contribute to society by using new IT to improve the work quality and create a new value as New Collar talents and to primarily train them. We launched the New Collar Level Certification System in 2020, and all employees are welcome to participate.

The New Collar Level Certification System offers online and offline training courses on data analysis and use in 4 levels. We are encouraging our employees to proactively and voluntarily be involved in the training program by rewarding them with HR benefits such as promotion points and opportunities to study abroad upon their successful completion of each level of training. POSCO will actively support New Collar talents to become the leaders of change in the new era.

### Strengthening Competitiveness of Local-Hires Overseas

POSCO owns worksites in approximately 20 countries around the world. Our overseas offices promote local management led by local workforce, and in order to heighten their prospects for career growth, we are promoting the localization of workforce for general manager-level positions or higher. To nurture talented local workforce abroad, we offer various programs such as the Global Mobility Program and leadership courses for new hires, managers, and supervisors.

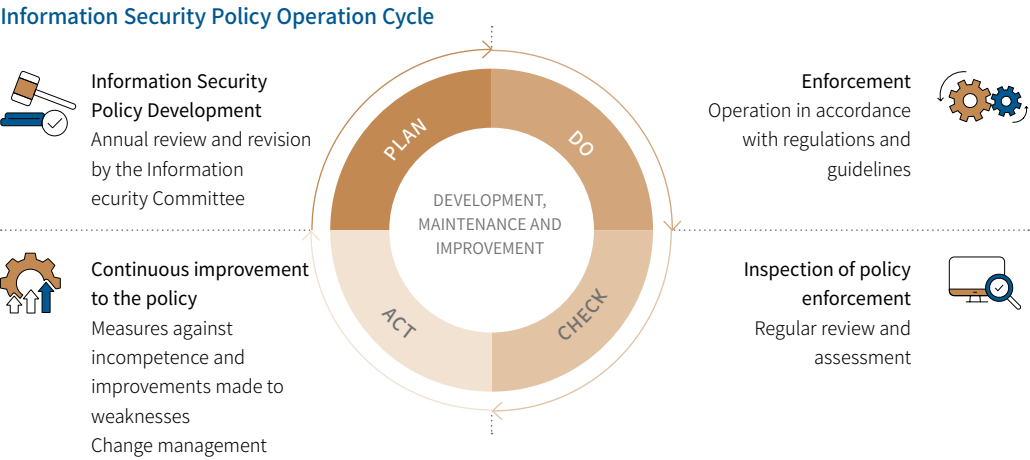
## Our Position on Diversity, Equity, and Inclusion (DE&I)

At POSCO, we believe that diversity, equity, and inclusion are essential to our culture, and strive to promote them in all of our worksites. We give all our employees an opportunity to express their opinions freely and implement an efficient and flexible organizational system by continuously identifying and resolving problems. Also, by prohibiting discrimination based on gender, nationality, race, and disability, and acknowledging and understanding the diversity and cultural gaps, we are making a workplace where everyone is respected.



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- POSCO forms a systematic information security organization and defines and applies clear roles and responsibilities.
- POSCO establishes and operates procedures to identify security vulnerabilities and to manage them continuously.



Information Security Policy Operations Cycle

POSCO’s information security regulations and guidelines are based on data security principles. These are amended each year to reflect the latest laws and systems and changes in the internal and external environments. When regulations and guidelines are enacted, amended, or repealed, they are reviewed by our Information Security Officer or Information Security Committee, and reported to the top management to be approved and finalized. All regulations and guidelines for information security are accessible to employees through the standard documentation management system. Amendments are posted on our Enterprise Portal (in-house system).

The information security policy system consists of four layers: principles, regulations, guidelines, and operating procedures. The regulations specify activities such as information security policies, organization, management of change, and responding to security breaches, together with the operation standards for each field, such as assets, personnel, and document security. In addition, information protection policies for each sector have been established as sub-guidelines of the regulations and are implemented under the supervision of each executive department.

POSCO Supplier Code of Conduct

The POSCO Supplier Code of Conduct (Code of Conduct) provides the basic rules that suppliers and subcontractors (collectively, Suppliers) that supply products and services to POSCO should follow. POSCO’s suppliers should create a safe workplace environment, treat employees with dignity and respect, and operate their business in an eco-friendly and ethical manner. To that end, the Code of Conduct encompasses the areas of E (environment), S (respect for human rights, mutual growth/social contribution, safety/health, trade secrets/intellectual property protection, and quality management), and G (ethics/fair trade).

※ The Code of Conduct refers to the RBA Code of Conduct ver.7.0.

LABOR RIGHTS

Suppliers must protect and respect the human rights of their employees throughout the entire process of their business activities. This applies to all employees, including temporary employees, migrant workers, trainees, short-term contractors, and those that are directly employed. Employees must be guaranteed lawful employment and labor rights under local laws and regulations.

Voluntary employment

- ◇ All labor and work are performed voluntarily, and workers have the freedom to resign from their work without any penalty.
- ◇ Suppliers should not compel or engage their employees in forced labor (i.e., all and any involuntary labor, including slavery and human trafficking) or cause the workers to be unreasonably indebted and use this as an excuse to compel them into forced labor.
- ◇ Suppliers should not withhold any identity and immigration-related documents, such as government-issued identification, passports, or work permits, from their foreign workers, and must allow them to retain those documents themselves.
- ◇ Suppliers should provide readily accessible employment terms and conditions using an understandable language and methods to workers when hiring or making changes to their employment agreements.

Prohibition of child labor

- ◇ Child labor is strictly prohibited. The term “child” refers to any person below the age of 15, or below the school-leaving age, or the minimum age for employment according to local laws and regulations, whichever is the highest.

- ◊ If a child worker is discovered, the Suppliers should stop the employment of the child worker immediately and improve their age verification system in the hiring process.
- ◊ Workers below the age of 18 should not be put to work on processes hazardous to safety and health, including night shifts and overtime works.
- ◊ When operating an trainee program, etc., Suppliers should provide support and training to all trainees under the trainee program, separately from other regular workers.

Compliance with working hours

- ◊ Working hours should comply with, and not exceed, the maximum working hours stipulated by local law, and all overtime work must be performed voluntarily.
- ◊ Employers should guarantee workers an average of at least one paid holiday per week.

Wages and benefits

- ◊ Compensation paid to workers comply with all applicable wage-related local laws, minimum wage, overtime hours, and legally mandated benefits.
- ◊ Employees should be provided with an understandable wage statement for each pay period so that they can ensure that their compensation for work has been paid accurately.

Humane treatment

- ◊ Suppliers respect all workers’ human rights, and there must be no threat or action of harsh or inhumane treatment including violence, sexual harassment, sexual abuse, corporal punishment, mental or physical coercion, bullying, public shaming, or verbal abuse of workers.
- ◊ Suppliers should not use any unfair discipline against their workers or threaten them with unfair discipline.
- ◊ Suppliers establish, implement, and promote policies and procedures relating to discipline that ensure a humane treatment of their workers.

Prohibition of discrimination

- ◊ Suppliers are committed to maintaining a workplace that is free from harassment and unlawful discrimination. Suppliers shall not engage in discrimination or harassment based on race, color, age, sex, gender identity, sexual orientation, ethnicity or national origin, disability, pregnancy, religion, political affiliation, union membership, nationality, or marital status in hiring and employment practices, including wages, promotions, rewards, and access to training.
- ◊ Workers should not be subjected to medical checkups or physical examinations that could be used for a discriminatory purpose unless required by local law or for workplace safety.

- ◊ When requested to do so, Suppliers should take reasonable measures in respect of the business to enable their workers to practice their religion within a reasonable scope.

Freedom of association

- ◊ Suppliers should guarantee workers the right and freedom to associate, including, but not limited to, the right to freely organize and join unions, the right to collective bargaining, and the right to participate in peaceful assemblies under local laws and regulations, as well as the right to refuse such activities.
- ◊ Workers and their representatives should be able to communicate with the management regarding the workplace conditions and management practices without fear of discrimination, reprisal, intimidation, or harassment.

SAFETY AND HEALTH

Suppliers should recognize that a safe and healthy work environment not only minimizes work-related injuries and illnesses, but also enhances the quality of products and services, the consistency of production, and worker retention and morale. Moreover, Suppliers should endeavor to identify and solve health and safety issues in the workplace according to local laws and regulations.

Occupational safety

- ◊ Suppliers should design, develop, and implement safe processes, technical and administrative controls, preventive maintenance, safety regulations and safety measures, and conduct regular training sessions for workers who may potentially be exposed to health and safety hazards (e.g., chemical, electrical and other energy sources, fire, vehicles, and fall hazards).
- ◊ Where such hazards cannot be adequately controlled, Suppliers should provide workers with educational materials about the hazards, as well as personal protective equipment for work and manage and supervise its proper wearing by workers.
- ◊ Additionally, Suppliers should take reasonable steps to remove pregnant or lactating women from highly hazardous working conditions, remove or reduce workplace health and safety risks to those women, and provide accommodations for lactating women at work.

Response to emergency

- ◊ Suppliers must minimize harm to life, environment, and property by identifying and assessing potential emergencies and incidents.
- ◊ Emergency plans and response procedures include emergency monitoring and reporting,



notification and evacuation procedures for workers, emergency evacuation drills for workers, evacuation facilities, fire detection, fire extinguishing equipment recovery, and recovery plans.

- ◇ Emergency plans should also include appropriate fire detection and suppression equipment, clear and unobstructed exits, contact information for an emergency response officer, and recovery plans.

Occupational accidents and illnesses

- ◇ Suppliers establish and follow the procedures and systems to prevent, manage, track, and report illnesses such as occupational accidents and illnesses.
- ◇ These should include regulations to encourage reporting by workers, classify and record accidents and illness cases, provide necessary medical treatment, implement corrective actions upon occurrence of such occupational accidents and illnesses, and facilitate the return of workers.

Occupational hygiene

- ◇ Suppliers identify, evaluate, and control workers’ exposure to chemical, biological, and physical factors regularly.
- ◇ If potential hazards are identified, Suppliers should be able to eliminate and/or reduce them and control them through proper design, engineering, and administrative controls.
- ◇ When the hazards cannot be adequately controlled by such means, workers will be provided with appropriate, well-maintained, personal protective equipment free of charge, and the workers must use them.
- ◇ Protective programs should include educational materials about the risks associated with these hazards.

Physical labor

- ◇ Suppliers should identify labor that is physically intensive, such as repetitive work and handling of heavy objects, and implement relevant measures such as process improvement to prevent musculoskeletal disorders, etc., from occurring in workers.

Management of dangerous equipment and facilities

- ◇ Suppliers classify and conduct regular safety inspections for dangerous equipment. Suppliers also provide physical guards, interlocks, and barriers to workers who are at risk, and maintain them appropriately.

Sanitation, food, and housing

- ◇ Suppliers provide clean toilet facilities, clean water, sanitary food preparation and storage, and dining facilities to workers.

- ◇ Workers’ dormitories provided by Suppliers are kept clean and safe and provided with lighting, appropriate emergency exits, HVAC system, individual lockers, and appropriate personal space of a reasonable standard.

Health and safety training

- ◇ Suppliers provide relevant health and safety information and training about all identified workplace hazards to which workers are exposed, including but not limited to mechanical, electrical, chemical, fire, and physical hazards, in an understandable language to workers.
- ◇ Suppliers should post or place health and safety-related information in readily identifiable locations that are accessible by workers.
- ◇ Moreover, Suppliers should encourage workers to raise any health and safety concerns at any time.

ENVIRONMENT

Suppliers must comply with laws and regulations on environmental protection and recognize that environmental protection is one of their basic social responsibilities as an enterprise.

Suppliers should identify environmental impacts and minimize adverse effects on the community, environment, and natural resources in their manufacturing operations while protecting the health and safety of the public at large.

Environmental permits and licenses

- ◇ Suppliers must obtain, maintain, and manage all required environment-related permits, licenses (e.g., installation, operation, notification of change of air discharge facilities), and registrations necessary for business operation, and reflect the latest legal amendments and comply with the reporting obligations.

Preventing pollution and reducing resource use

- ◇ Suppliers should endeavor to minimize or eliminate pollutant emissions and waste discharge through process improvement, substitution of raw materials, preventive maintenance, resource conservation, recycling, reuse, etc. In addition, Suppliers should endeavor to reduce electricity and fuel consumption and minimize GHG emissions by improving energy efficiency.
- ◇ The use of natural resources, including water, fossil fuels, minerals, and virgin forest products, must be conserved through production process improvement, use of substituted materials, recycling materials, or other means.

Hazardous substances

- ◇ Suppliers should identify and separately manage all chemicals that may potentially prove to be hazardous to humans or environment through identification marks, labels, etc., for the safe storage, transport, keeping, recycling or reuse, and disposal of the chemicals, and conduct response drills.

Solid refuse

- ◇ Suppliers should identify, manage, and reduce solid refuse that is non-hazardous and dispose of it as per the relevant laws and regulations, while committing to reduce the amount generated.

Air pollutant emissions

- ◇ Suppliers should identify the characteristics of volatile organic compounds, aerosols, corrosive gases, particulates, ozone-depleting substances, and combustion byproducts in the process, and dispose of them after treatment under the relevant laws and regulations, and constantly monitor the emission status of the air pollutant.
- ◇ Suppliers should also regularly check the performance and operation of their air emissions monitoring system.

Regulations on materials

- ◇ Suppliers should label materials for recycling and disposal and comply with all laws and customer requests regarding the prohibition and restriction of the use of specific substances in production and manufacturing.

Water resources management

- ◇ Suppliers should monitor their usage and discharge of water resources, seek preservation methods for water resources, and control the contamination channels.
- ◇ All wastewater is to be characterized, monitored, and treated as required by the regulations before discharge or disposal. Suppliers should regularly monitor the performance of their wastewater disposal system.

Energy consumption and GHG emissions

- ◇ Suppliers should consider establishing a GHG reduction target. Suppliers shall strive to track and document energy consumption and GHG emissions (Scope 1 for direct emissions and Scope 2 for indirect emissions) and seek ways to improve energy efficiency and minimize their energy consumption and GHG emissions.

**ETHICS AND FAIR TRADE**

In order to fulfill social responsibilities and achieve sustainable growth, POSCO and Suppliers must comply with the following:

Business Integrity

- ◇ Suppliers must maintain the highest standards of integrity in all business interactions. Suppliers shall apply a zero-tolerance policy to prohibit all forms of bribery, corruption, extortion, and embezzlement.

No improper advantage

- ◇ Suppliers must not promise, offer, authorize, give, or accept bribes or other means of obtaining an unfair or improper advantage.
- ◇ This prohibition includes any act of promising, offering, authorizing, giving, or accepting anything valuable, either directly or indirectly from a third party, to acquire from or to provide to a certain person a business opportunity, or otherwise to gain an improper advantage.
- ◇ Also, inspection and monitoring shall be continuously implemented to ensure compliance with anti-corruption laws.

Compliance with special terms and conditions

- ◇ Suppliers are obliged to comply with the provisions of POSCO’s Special Terms and Conditions for Ethical Practice, and if a Supplier violates these provisions, sanctions shall be imposed according to such Terms and Conditions and contract-related regulations.

Information disclosure

- ◇ All transactions of Suppliers must be transparent and accurately recorded and maintained in their books of account.
- ◇ Information regarding Suppliers’ labor, health and safety, environmental practices, business activities, governance, financial status, and performance should be disclosed as per the applicable laws, regulations, and prevailing industry practices. Forgery or misrepresentation are not permitted.

Protection of intellectual property

- ◇ Suppliers should respect intellectual property rights and protect relevant rights when transferring technology and/or know-how. Suppliers shall safely and actively protect all information (technical data, information, intellectual property, etc.) of POSCO that is acquired through transactions with POSCO.

◇ Furthermore, Suppliers must not infringe or use intellectual property, such as patents, software, designs, or trademarks of others illegally while supplying products and services to POSCO.

Fair trade, advertising, and competition

◇ Suppliers should comply with the standards for fair trade, advertising, and competition and not engage in acts that undermine the order of fair trade, such as unfair trade practices.

Protection of identity and prohibition of retaliation

◇ Suppliers should maintain programs that protect the anonymity of internal whistleblowers, except where prohibited by law. Suppliers should also notify their employees of the relevant procedures and enable them to raise concerns without any fear of retaliation.

Management of Responsible Minerals

◇ Suppliers should endeavor to procure minerals sourced from conflict and high-risk areas in a manner consistent with the OECD guidelines.

◇ Responsible Minerals such as cobalt, tantalum, tin, tungsten, and gold must not be a source of finance for any conflict, and they must be mined in a manner that respects human rights and the environment and fulfils social responsibilities.

Data protection

◇ Suppliers endeavor to protect the personal information of all stakeholders (including suppliers, customers, consumers, and employees) in their business.

◇ Suppliers must comply with data protection and information security laws and regulatory requirements when personal information is collected, stored, processed, transmitted, and shared.

MANAGEMENT SYSTEM

Suppliers should adopt or build a management system related to the Code of Conduct. The management system should be designed to ensure compliance with the applicable laws, regulations, and customer demands. It should conform with the Code of Conduct and identify operational risks related therewith. It should also facilitate continuous improvement.

Company’s commitment to compliance

◇ A statement of corporate social and environmental responsibility that affirms Suppliers’ commitment

to compliance and continuous improvement, must be approved by the management and published in a local language.

Management duties and responsibilities

◇ Suppliers should identify the responsibilities of their senior company representative(s) to ensure the implementation of the management system and associated programs. The management should review the operational status of the management system regularly.

Regulations and customer requirements

◇ Suppliers should have a process to identify, monitor, and understand applicable laws, regulations, and customer requirements, including the requirements of the Code of Conduct.

Risk assessment and management

◇ Suppliers should have a process to identify legal compliance, environment, health, safety, labor practices, and ethical risks associated with their business operations.

◇ Suppliers should determine the relative significance of each risk, control the identified risk, and check regulatory compliance in a regular manner.

Improvement objectives

◇ Suppliers should prepare a written documentation of objectives, targets and implementation plans to improve their social, environmental, health and safety performances, and periodically assess their performances relative to the objectives.

Training

◇ Suppliers should have training programs in place for managers and employees to implement their policies, procedures, and improvement objectives and to comply with applicable legal and regulatory requirements.

Communication

◇ Suppliers should have a procedure for communicating clear and accurate information regarding their policies, practices, expectations, and performance to employees, suppliers, and customers.

Worker feedback, participation, and grievance handling

◇ Suppliers should establish a process, including an effective grievance mechanism, to obtain worker

feedback about the demands in the Code of Conduct for continuous improvement.

- ◇ Suppliers must provide an environment in which employees can provide grievances and feedback without fear of reprisal or retaliation.

**Audits and assessments**

- ◇ Periodic self-evaluations must be implemented to ensure conformity with POSCO’s requirements, such as legal and regulatory requirements, the provisions of the Code of Conduct, and social and environmental responsibilities.

**Corrective action process**

- ◇ Suppliers should have a procedure in place for a timely correction of deficiencies identified by internal or external assessments, inspections, investigations, and reviews.

**Documentation and records**

- ◇ Suppliers should create, keep a record of, and maintain documents to ensure regulatory compliance and conformity with their own requirements along with appropriate confidentiality to protect privacy.

**Supply chain participation and responsibility**

- ◇ Suppliers should have a process of communicating the requirements of the Code of Conduct to their suppliers and monitor their compliance with the Code of Conduct.

**SHARED GROWTH AND SOCIAL CONTRIBUTION**

Suppliers should actively participate in developing the local community as well as creating a sound corporate ecosystem through shared growth and social contribution.

**Shared growth**

- ◇ Suppliers should make best efforts to implement fair trade and proliferate shared growth to their own secondary and tertiary suppliers by actively participating to create and build a sound corporate ecosystem.

**Social contribution**

- ◇ Suppliers should actively carry out social contribution activities to continuously create jobs and develop local communities and the economy.

**QUALITY MANAGEMENT**

Suppliers should strive to create the World’s Best Supply Chain by providing the highest quality products and services to POSCO.

**Quality Control**

- ◇ Suppliers endeavor to supply products of self-proven quality so that POSCO can produce and supply world-class products.

**Change management**

- ◇ Suppliers shall notify POSCO in advance and prevent defects if there are factors that may affect the quality due to changes in equipment, materials, and work methods.

**Mutual quality control between suppliers**

- ◇ Suppliers should provide technical and quality support to their suppliers, to contribute to securing the quality of their products and services.

**Policy on Responsible Minerals**

As a global company, POSCO is committed to actively participating in efforts to purchase minerals responsibly and fulfill its social responsibilities to protect human rights, by establishing a responsible supply chain to solve social problems such as human rights violations, environment destruction, and inflow of funds from conflict groups in Africa, Asia, and the Middle East.

To ensure the management of Responsible Minerals, POSCO has established a systematic policy and applies its standard operating procedures based on the OECD Due Diligence Guidance. In addition, POSCO has joined the Responsible Minerals Initiative (RMI)<sup>®</sup>, to focus on ethically responsible minerals procurement and strengthen supply chain management. Regarding these procedures, POSCO is providing education for employees, suppliers, and customers to raise their awareness of Responsible Minerals. POSCO uses the Conflict Minerals Reporting Template (CMRT) and the Cobalt Reporting Template (CRT) forms provided by the RMI Association, and the POSCO Know Your Company (KYC) and Supplier

Questionnaire Survey that it independently developed to identify and mitigate the risks in the supply chains for tin, tungsten, tantalum, gold and cobalt.

8) Responsible Minerals Initiative (RMI): A global consultative body that tracks the country of origin of Responsible Minerals and monitors and certifies producers.

Target Suppliers

When signing a contract or registering as a new supplier, we recommend the supplier to conduct a due diligence by a third-party organization under the Responsible Minerals Assurance Program (RMAP) for smelting plants in the supply chain. To establish a strong internal management system for POSCO itself, POSCO selected a KPI for each department to check their performance and improvement progress. As a result of these efforts by POSCO’s management and employees, POSCO’s smelting plants are 100% certified by the RMI for minerals of origin in the Conflict Affected and High Risk Areas (CAHRAs) <sup>9)</sup> (6 smelting plants and 5 suppliers as of December 31, 2021). In addition to tin and tungsten, the scope of Conflict Minerals (3TG) has been extended to include cobalt since 2020, due to cases of human rights abuses, such as child labor, during mining.

9) Conflict-Affected and High-Risk Areas (CAHRAs): Areas of conflict and high risk of frequent human rights risks, with armed conflict groups funded by minerals revenue and/or child labor.

Management Organization

In 2020, POSCO newly established a Responsible Minerals Consultative Group to create a unified Policy on Responsible Minerals. With the Raw Materials Purchasing Department under the Purchasing and Investment Division as the control tower, ESG Group, POSCO International, and POSCO Chemical are participating in risk management. Currently, POSCO is complying with the 5-step activities in accordance with the five steps of the OECD Due Diligence Guidance.

Risk Management of High-risk Suppliers

POSCO selected 211 regions in 24 nations as CAHRAs to manage its supply chain and strengthen the regulations so that the raw materials can only be purchased from RMAP-certified smelting plants. Notably, information collection and risk assessments are executed from the supplier registration stage to identify high-risk suppliers (i.e., Red Flag) and manage risks. For high-risk suppliers, the purchaser must detect latent risks and improve them through a due diligence conducted directly by the purchaser or by an independent third-party agency. In addition, by developing and providing educational contents for Responsible Minerals for internal and external stakeholders, the POSCO Policy on Responsible Minerals is

continually expanding throughout the supply chain, thereby making it easier to implement. Suppliers shall make good efforts to gather and identify the mining/smelting plant information, origin, location, and ethical risks in the supply chain, and shall agree to and act according to our Policy on Responsible Minerals when signing a contract with POSCO. Suppliers should prepare and submit a report on the use of Conflict Minerals and Responsible Minerals at POSCO’s request in a timely manner and participate in disseminating the Policy on Responsible Minerals to the high-rank suppliers so that all of our supply chains can take a lead in resolving social issues.

POSCO has created a system in which it can manage the activities of its suppliers at least once a year in conjunction with the SRM system. If POSCO does not receive sufficient information necessary to implement the Policy on Responsible Minerals, or a risk was detected in the supplier’s supply chain but appropriate action was not taken, POSCO will support the suppliers to make improvements by strengthening their capacities (including assisting with training and due diligence). POSCO may consider suspending transactions with suppliers that intentionally provide factually inconsistent information or do not show efforts to make improvements.

Responsible Minerals Policy Framework







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CORPORATE CITIZENSHIP  
REPORT 2021



# Governance (G)



## Corporate Governance Charter

### Preamble

POSCO (or Company) is committed to becoming a globally respected company by providing valuable goods and services, through which it contributes to its stakeholders and human society. Our Corporate Governance Charter (Charter) is enacted based on a firm belief that establishing sound corporate governance is a vital step toward securing the trust of all stakeholders and diligently fulfilling our social responsibilities. The Charter aims to promote transparent, sound, responsible and professional management under the supervision of an independent board of directors (BOD) so as to promote the balanced rights of all stakeholders, such as shareholders, customers, and employees.

### General Provisions

- ◆ POSCO’s business goal is to enhance the long-term value of its shareholders. This is carried out by all of its employees including the senior management level. The BOD decides the Company’s key management policy, identifies and supervises management efforts of the officers to promote the values held among the shareholders.
- ◆ To promote shareholder values and protect stakeholder rights, POSCO will establish and develop a Global Professional Management (GPM) system to ensure checks and balances between the BOD (including an outside director) and the management.

- ◆ POSCO will promptly and accurately disclose the key provisions related to the management and the financial statements to its shareholders and stakeholders, and review the accuracy of financial information through an independent expert audit agency.

### Shareholders

#### Shareholder Rights

- Shareholders, as the owners of POSCO, have the following rights which are guaranteed by the relevant laws and regulations, such as the Commercial Code:
  - ◇ the right to participate in profit sharing
  - ◇ the right to attend and vote at the General Meeting of Shareholders (GMS)
  - ◇ the right to propose objectives of the GMS, such as nomination of candidates for directors
  - ◇ the right to obtain relevant corporate information in a timely and easily accessible manner
- To fully protect the rights of shareholders, any matters causing fundamental changes to the existence of the Company and the shareholders’ rights (including, but not limited to, mergers, amendments to the articles of incorporation, capital reduction) shall be decided at the GMS.
- Shareholders should be able to exercise their voting rights as easily as possible and based on their free will. POSCO will provide sufficient information on the GMS agenda and allow the shareholders’ voting rights to be exercised in writing.

#### Equitable Treatment of Shareholders

- In all business dealings, POSCO will not favor or give any special treatment to its shareholders, and will not penalize or disadvantage any non-shareholders by virtue of the fact that they are not shareholders of POSCO.



Operation of the BOD

- In order to make the best managerial decisions for the best interests of POSCO and its shareholders, the BOD should operate in an efficient and rational manner.
- The BOD should establish an ESG committee and an audit committee in order to perform management in an efficient and professional manner.
- In principle, BOD meetings should be held regularly seven times per year. If there is an urgent agenda to be addressed, an interim meeting of the BOD will be held. For a sound operation of the BOD, the operating regulations for the BOD which stipulate in detail the BOD’s authority, responsibilities, and operating procedures should be enacted and implemented.

Assessment and Compensation of the Management

- The BOD should design and implement the assessment and compensation system for the management that can contribute to the increase in the shareholders’ long-term values. The management activities of the management should be evaluated fairly, and the results should be rationally and appropriately linked to their compensation and reappointment.

Audit Systems

Audit Committee

- The Audit Committee shall be comprised of at least three directors, and at least two-thirds of the committee members must be non-executive directors.
- The Audit Committee shall perform the following functions:
  - ◊ Audit the legality of the management’s performance
  - ◊ Review the soundness and validity of POSCO’s corporate financial activities and the appropriateness of financial reporting
  - ◊ Review the adequacy of major accounting standards and feasibility of changes in accounting estimates
  - ◊ Other matters prescribed by the statutes, articles of association, and operating regulations of the Audit Committee
- The Audit Committee is held at least once every quarter and may request the attendance of directors, non-registered officers, or other related employees, if necessary.

Outside Auditors

- Outside auditors shall perform fair audits independently from the Company, its management and certain shareholders.
- Outside auditors shall be appointed by the Audit Committee and shall report key points identified during the external audit to the Audit Committee.
- Outside auditors shall attend the GMS and answer the shareholders’ questions, if any, on the audit reports in good faith.

Stakeholder

- POSCO will endeavor to fulfill its corporate social responsibilities to address issues related to the interests of all stakeholders (including the employees, customers, creditors, suppliers, and local communities) in good faith, so as to promote the long-term values of its shareholders.
- POSCO will endeavor to protect the rights of stakeholders according to the laws, regulations or contracts. In particular, POSCO will strive to observe all labor-related laws and regulations such as the Labor Standards Act in good faith, and maintain and improve its working conditions.
- POSCO will disclose any information that is required to be disclosed under the relevant laws and regulations in order to protect the stakeholder’s interests, and shall support access to relevant information by the stakeholders.

Disclosure

- POSCO will regularly prepare and disclose business reports, quarterly reports, and semi-annual reports. In addition to the disclosures required by law, POSCO will disclose information that may have a significant effect on the decisions made by its shareholders and stakeholders in a timely and accurate manner.
- POSCO will not favor or unfairly discriminate against any particular person in the scope or timing of such disclosures, and the disclosures shall be prepared in a manner that allows all stakeholders to have simultaneous access to the information.

## Code of Ethics

### Principles of Ethics

#### Duty of Compliance with the Code of Ethics

- Comply with relevant laws and regulations worldwide wherever POSCO conducts business.
- Strive to maintain their dignity as POSCO employees and the Company's reputation.
- Preserve honesty, fairness and trust in performing all work-related duties and business relations.
- Not engage in activities in which there are conflicts of interest between the Company and the individuals.
- Respect individual dignity and diversity of employees and stakeholders without unreasonable discrimination based on race, nationality, sex, disability, religion, etc.
- POSCO will strive to create a safe, healthy, and clean workplace and protect the environment for all people, including its employees.
- POSCO employees make best efforts to establish an ethical culture by taking responsibility for and practicing ethical conducts.
- POSCO employees, and stakeholders keep an open communication channel that enables them to consult and report violations of ethical standards and other concerns, and check the ethics-related status quo at all times by operating an advisory system with third party experts.

#### Roles and responsibilities of employees

Employees understand and practice all aspects of the Code of Ethics and comply with domestic and international anti-corruption laws as members of a global company.

- ① Understanding and Complying with the Code of Ethics
  - Fully understand and diligently comply with all aspects of the Code of Ethics.
  - In the event of potential conflicts concerning the Code of Ethics, decisions are made after consulting with the head of the department or the Corporate Audit Office.
  - In the event of committing an unethical conduct, take responsibility correspondingly.
- ② Reporting and Consulting on Unethical Conduct
  - Upon discovery of our or others' actions conflicting with the Code of Ethics, immediately report to and consult with the head of the department or the Corporate Audit Office.
  - Be aware of the various methods available for reporting or consulting about cases in which there are conflicts over the Code of Ethics.

#### Roles and Responsibilities of a Leader

The leader should perform a pivotal role in enhancing the competitiveness of the Company by preventing and eradicating unethical conduct through ethical compliance.

- Decision-making: Obligated to make ethics the top priority whenever the Company's interests conflict with its ethical responsibility.
- Managerial accountability: Be liable for any and all unethical conduct, and take supervisory accountability where there is unethical conduct by his/her subordinates.
- Business performance: Strictly abide by laws and company regulations; not pursue personal interests; make best efforts to create corporate values for the Company; and not deal with any corrupt stakeholders.
- Elimination of favors and solicitations: Eliminate all forms of solicitations and not engage in solicitation activities for the benefit of the Company or the suppliers.
- Respect for individuals: Make best efforts to eliminate conduct that impairs respect for the individuals within the organization, such as sexual harassment and verbal abuse.
- Preventing Conflicts of Interest: Prevent conflicts of interest with any private stakeholder who is employed by a counterparty, and make best efforts to eradicate unfair business practices of providing preferential treatment for personal interests.
- Practical activities: Strive to fulfil responsibilities necessary for raising the level of ethical practice to the world's highest by fulfilling the above roles and responsibilities.

The leader must prevent unethical conducts by the employees and take the following measures where such conduct occurs.

#### Training and counseling on ethics

- ◇ Provide training and counseling on ethics for relevant employees.
- ◇ Cause the relevant employees to understand the importance of compliance with the Code of Ethics and practice of ethical conduct.

#### Preventative measures against unethical conduct

- ◇ In the event of habitual occurrence of an unethical conduct, isolate the cause, improve the process, and take fundamental preventive measures.
- ◇ Report to or consult with the Corporate Audit Office immediately after receiving a report that an employee has violated the Code of Ethics.











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- ◇ Provide sufficient and accurate information regarding the management of the Company to investors, so that investors may make investment decisions freely and responsibly.

### Building Win-win Relations with Business Partners

We strive to establish a fair trade system based on mutual trust, and build a corporate ecosystem in which stakeholders can co-exist and grow together.

#### Building mutual trust

- ◇ Pursue fair dealings with our business partners on an equal footing and based on mutual respect.
- ◇ Strictly protect information obtained through transactions with business partners in accordance with the terms of the relevant contract and the relevant laws.
- ◇ Support business partners in their efforts to comply with anti-competition related laws and regulations.

#### Pursuing mutual growth with business partners

- ◇ Pursue mutual benefits by sharing fruitful outcomes with business partners.
- ◇ Cooperate and communicate openly with business partners such that business partners may provide high-quality products and services.
- ◇ Provide fair opportunities and reasonable transaction terms to business partners, so that they can grow as long-term business partners.

#### Support for a continuing development of business partners

- ◇ Endeavor to build a stable supply chain by providing technical and financial supports to business partners.
- ◇ Endeavor to expand the potential pool of business partners that can grow with us in harmonious development of the overall corporate ecosystem.

### Contribution to the Country and Society (Corporate Citizenship)

We strive to contribute to the growth of the country and society by fulfilling our responsibilities and duties as global corporate citizens.

#### Roles and attitudes of a corporate citizen

- ◇ Respect local laws and regulations as well as local culture and tradition in all markets in which we do business and strive for joint development with society nationwide.
- ◇ Encourage the participation of and endeavor to communicate with our stakeholders in performing management activities that may affect society at national level.
- ◇ Encourage business partners to participate in activities for the development of society nationwide.

#### Contribution to the national and social development

- ◇ Fulfill our obligations to the community by creating and maintaining stable jobs and paying taxes on time.
- ◇ Actively participate in social service activities, such as volunteer works and disaster relief work, and conduct public interest activities in various fields, including culture, arts, sports, and education.
- ◇ Support local residents in improving the quality of their lives and pursuing a happy life.

### Protection of Environment and Ecosystem Conservation

We strive to establish an environmental management system, strengthen our ability to deal with environmental risks and implement environment-friendly management through open communication.

#### Implementation of environmental management system

- ◇ Effectively implement an environmental management system; evaluate the impacts and risks of business activities on the environment; and manage and analyze the performance of environmental management.
- ◇ Share performances and issues with various stakeholders and jointly carry out environmental conservation activities.
- ◇ Help business partners form a consensus that protection of the environment is one of company's fundamental social responsibilities and support business partners in their efforts to comply with laws and regulations related to environmental protection.
- ◇ Support business partners in their efforts to manufacture products and provide services while protecting the public health and minimizing adverse effects on the environment and the natural resources of the community.

Compliance with environmental laws and improvement on environmental impacts

- ◇ Endeavor to comply with environmental laws and to reduce our impacts on the environment in the overall process of developing, producing, and using our products.
- ◇ Minimize our pollutant emissions by introducing eco-friendly manufacturing processes and applying technologies optimized for prevention of pollution.

Response to climate change

- ◇ Endeavor to reduce our consumption of fossil fuels or raw materials, and to minimize greenhouse gas emissions by improving energy efficiency.
- ◇ Enhance our competitiveness by developing innovative low-carbon technologies.

Protection of environment and ecosystem

- ◇ Endeavor to restore the natural ecosystem and preserve biological diversity through the effective use of natural resources and by-products.

Protection of and Respect for Human Rights

We strive to respect human rights, support the international standards for human rights and strengthen the dignity of all stakeholders by improving freedom, safety, and quality of life.

Respect for international standards on human rights

- ◇ Support and respect internationally recognized standards on human rights, such as the UDHR, the UN Guiding Principles on Business and Human Rights, the UN Global Compact, the OECD Guidelines for Multinational Enterprises, and the Fundamental Conventions of ILO.
- ◇ Establish a clear policy and system for the protection of human rights and strive to prevent human rights from violations in the course of our management activities.
- ◇ Support our business partners in their efforts to comply with the internationally recognized human rights standards and regulations, protect our employees' human rights and treat them fairly.

Obligation to conduct a due diligence for respect of human rights

- ◇ May, at our discretion, conduct a due diligence on management activities that might violate human rights or cause complaints.
- ◇ If, upon conclusion of the due diligence, believe our management activities have violated human rights or caused dissatisfaction, then endeavor to seek reasonable solutions.

- ◇ Communicate with the relevant stakeholders regarding human rights-related activities and the results thereof.

Protection of employees

- ◇ Not engage in any verbal, physical, or demonstrative acts that may offend others or infringe on others' individual human rights, such as sexual harassment.
- ◇ Respect the privacy of each and every employee; not slander or defame others; and not leak personal information.
- ◇ Not compel work through mental or physical coercion.
- ◇ Comply with local labor laws and international standards with respect to the working conditions for minors and the minimum age requirements.
- ◇ Strictly comply with safety regulations and take appropriate actions upon the discovery of hazards.

Respect and equality

- ◇ Not discriminate or harass on the grounds of race, nationality, sex, age, educational background, religion, regional origin, disability, marital status, or gender identity.
- ◇ Provide equal employment opportunities to those who possess the necessary qualifications and competence.
- ◇ Maintain a workplace environment that respects cultural diversity.

Assurance of lawful employment terms and conditions

- ◇ Take prompt and proactive actions in the event that human rights issues are raised by employees through the Company's grievance handling system.
- ◇ Offer employment terms and conditions, such as guaranteeing proper working hours, to enable employees to maintain their lives with dignity.

Community efforts to respect human rights

- ◇ Endeavor to listen to the opinions of the community and address issues of any violation of human rights caused by our management activities in the community.



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## Our Position on Stakeholder Engagement Framework

POSCO pays attention to the opinions of our various stakeholders, and we reflect their feedback in our business operations through our Stakeholder Engagement Framework. In running our business or when promoting new projects in particular, POSCO considers the economic and physical impacts on local communities. This is reflected in the Practicing Guidelines for the Code of Ethics, Policy on Responsible Minerals, and Investment Guidelines. The following items are carefully considered during the project development and community consultation phases.

### Stakeholder Engagement Framework

#### Identification of Community and Stakeholders

POSCO defines and categorizes stakeholders according to their general functions, scale, importance, and the degree of influence they receive from business activities. This includes employees, customers, partners and suppliers, local communities, and shareholders and investors. POSCO also identifies local communities and stakeholders that may be affected economically, environmentally, and socially before starting any business in the region.

#### Establishment of Stakeholder Engagement Plan

We operate communication channels tailored to the characteristics of each stakeholder.

- Shareholders and investors: Company briefings (once every quarter of the year), public notices, investor meetings (face-to-face meetings), non-executive director IR, regular consultations on credit rating
- Customers: Customer satisfaction surveys, Early Vendor Involvement (EVI) forums
- Partners and suppliers: Information exchange meetings with suppliers, invitation-based meetings for selected suppliers, networking meetings with partners
- Local Communities: Local briefings and discussions, exchanges with civic groups (NGOs), environmental improvement council, Corporate Citizen Love Letters, sister village volunteer activities
- Employees: Labor unions and labor-management council, Young Board, town hall meetings, management meetings, POSCO Today, PBN, etc.

#### Analysis of the Impact on Community and Provision of Information

In the process of operating worksites and implementing new projects, POSCO takes an in-depth look at its physical and economic impacts on local communities. While ensuring its compliance with relevant laws and regulations throughout the project area, POSCO supervises its environmental and social impacts, including assessing the environmental influences of our projects. The contents thereof are reflected in the Code of Ethics Practice Guidelines, Policy on Responsible Minerals, and Investment Guidelines. We also hold discussions with the local community about the effects our projects can have through public hearings.

#### Project Execution

POSCO carries out projects with the aim of preserving local cultural heritage and minimizing economic, environmental, and social impacts. If a business or a project is deemed as having an adverse effect or is likely to have an adverse impact, POSCO reviews and monitors measures to minimize them. To this end, we consult with the local community through community engagement and feedback mechanisms.

#### Collection and Analysis of Opinions from the Community

POSCO collects and analyzes community opinions from the early stages of project development. POSCO supplies transparent and specific information during the process and provides opportunities for those related to the issues at hand in addition to the local community and major stakeholders to communicate their impressions and thoughts. Furthermore, we strive to provide comprehensive information on how to manage and respond to issues and to provide appropriate timing for participation to help local communities in making decisions.

#### Grievance handling mechanism

POSCO operates a mechanism for handling grievances from a local community, such as preservation of cultural heritage, and a process for collecting opinions. Grievances of the local community can be filed through various channels, including POSCO’s website (Love Letter/Center for Reporting Unethical Behavior), telephone, fax, mail, and e-mail. If the grounds for the grievance are confirmed, the relevant departments will take appropriate actions after conducting a monitoring and a due diligence. POSCO rigorously protects complainants, and strictly prohibits disclosure of the complainants’ identity and any acts of searching for and retaliating against the reporting person. In addition, we ensure that complainants are not subject to any ill treatment, including in employment relationships. After processing the complaint according to the procedure, the results are notified directly in person or in writing.





- Expenses of transportation, accommodation, etc.
- Any rights to use or receive discounts on products or services
- Any political contributions
- Any transfer or exemption of liabilities, employment, privileges, or any other tangible or intangible economic benefits

PROVIDED, HOWEVER, THAT it may be permitted to provide or receive a generally accepted hospitality or convenience if it is necessary to conduct the ordinary business for sales promotion, execution of a contract or promotion of mutual business understandings, etc., when the following conditions are met:

- The level of business hospitality and convenience is reasonable and legitimate.
- The business hospitality and convenience should not be offered frequently within a given time period.
- Relevant expenditure details shall be accurately reflected in the Company's books and must comply with the Company's internal regulations in relation to other procedures.

Meals, gifts, etc.

When POSCO employees provide any meal or gift to a stakeholder as a gesture of goodwill or courtesy or to promote social relationship, they must comply with the following:

- The meal or gift is provided only at necessary points of time with a clear cause and is not provided frequently within a given time period.
- Matters concerning business hospitality, including meals, shall be subject to the Company's Code of Ethics, and in the case of public officials who are subject to Anti-Graft Act, relevant laws must be followed.

Convenience

Whenever POSCO employees provide any convenience to a stakeholder, they must comply with the following:

- Employees shall not provide or receive convenience such as transportation, accommodation, etc. beyond a generally accepted level, except where a convenience is provided generally and equally to all attendees of an event.
- The convenience shall be of a reasonable level and shall be directly or indirectly related to sales promotion, demonstration or explanation, execution of a contract or performance of obligations thereunder, etc.
- The convenience shall not be provided to anyone other than the stakeholders themselves (friends, etc.)
- Any costs incurred by the convenience should not be paid to the stakeholders, but should be paid directly to the service providers, such as airlines and hotels.

Article 4. Prohibition and Restrictions on Express Fee

No POSCO officer and employee shall make any express fee to any domestic and foreign government officials to gain favor. Express fees are a relatively small amount, and is provided or intended to be provided to a government official who is involved in daily routine work, in order to expedite a legitimate business decision or other transaction, which may include:

- Receipt and processing administrative documents, such as visa issuance
- Customs clearance, and loading or unloading of products related to logistics, etc.
- Opening a telephone line or providing supply of electricity or water

Article 5. Agents and Joint Ventures

Agents

An agent is a person who handles matters such as contract awarding, customs clearance, license approval, and tax affairs on behalf of a company. Global anti-corruption laws and standards such as the FCPA, prohibit an agent from making any payment of money or providing any valuables to a stakeholder, including foreign or local government officials, and counterparties on behalf of the company with a fraudulent intent. Therefore, while working with an agent, one should exercise their duties and responsibilities in a manner that ensures that there is no violation of any global anti-corruption laws and standards. Before signing a contract with an agent, the following should be considered: if any of the following applies, the final decision on whether to sign a contract with the agent shall be made based via Agent Contract Checklist.

- Whether an agent has a past or present record of improper business practices (e.g., actual or alleged incidence of giving or receiving bribery or other corrupt practices)
- Whether an agent is related to a former and current public official (e.g., recommendation of an agent by a public official, stake-holding by a public official)
- Whether an agent requests an unusual or complicated method of payment (e.g., advance payment, third party payment)
- Whether information provided by the agent is incomplete or inaccurate

When entering into a contract with an agent, the following must be expressed in the contract:

- Agent's roles and responsibilities in complying with the global anti-corruption laws and standards
- Criteria for computing the agent's remuneration and method of payment
- Right of the Company to terminate a contract with the agent in the event that the agent violates global anti-corruption laws and standards

• Right of the Company to conduct an investigation where there is a reasonable concern that the agent may violate the global anti-corruption laws and standards.

After executing a contract with an agent, POSCO employees will manage that the agent complies with the global anti-corruption laws and standards, and upon finding of a violation, shall report immediately to the Corporate Audit Office, so that the Company can take any appropriate measures, such as rectifying the violation or terminating the contract with the agent.

On the other hand, whenever there is any question or concern with regard to the violation of global anti-corruption laws and standards in an agency contract, please contact the Corporate Audit Office.

Joint ventures

Under the global anti-corruption laws and standards, such as the FCPA, joint venture companies or joint venture partners are prohibited from making any payment of money or providing anything of value with fraudulent intentions to any stakeholders, including but not limited to, domestic/foreign government officials and counterparties, and hence, the laws and regulations applicable to agents also apply to joint venture businesses.

Miscellaneous

The Anti-Corruption Compliance Guidelines that apply to agents may be used vis-à-vis counterparties, including, but not limited to suppliers and customers, mutatis mutandis based on mutual understanding.

Article 6. Accounting Records and Management

Global anti-corruption laws and standards strictly stipulate that it is necessary to keep a system of accounting controls to record and monitor all business transactions in order to ensure that they are accurately recorded.

Therefore, POSCO employees shall keep and properly account for invoices, receipts, and other related payment documents that arise from the business, and any possession of expenditures or assets which is not listed in the books of the Company is strictly prohibited.

In addition to maintaining the books and records, all businesses must be carried out as per the following via the Company’s internal accounting management system:

• All transactional expenses and costs shall be executed only after approval by a person with proper authority.

• All transactions shall be recorded as per the accounting standards and approved from a person with proper authority.

- The Company’s assets shall be utilized only upon approval from a person with proper authority.
- A due diligence on the Company’s assets will be conducted periodically.

Article 7. Anti-Corruption Compliance Training

POSCO employees shall implement and attend anti-corruption compliance training sessions under the guidance of the Corporate Audit Office, and submit records of attendance to the Corporate Audit Office.

Article 8. Whistleblowing and Protection for Whistleblowers

POSCO employees shall report to the Corporate Audit Office when they learn or have a reason to believe that any violation of the global anti-corruption laws and standards or the Anti-Corruption Compliance Guidelines has occurred.

The Company shall fully protect whistleblowers who report any violation of global anti-corruption laws and standards or the Anti-Corruption Compliance Guidelines to the Corporate Audit Office, and strictly prohibit disclosure of the whistleblower’s identity, and retaliation against or search for the whistleblower, and shall not subject the whistleblower to any type of disadvantages, such as in relation to the whistleblower’s employment relationships with POSCO.

Article 9. Reward and Punishment

POSCO may reward its employees who have contributed to achieving the objectives of the Anti-Corruption Compliance Guidelines as per the relevant regulations of reward and punishment.

POSCO may take disciplinary actions against its employees who violate the global anti-corruption laws and standards and the Anti-Corruption Compliance Guidelines as per the rules of employment and the rules of reward and punishment, and such disciplinary actions may include dismissal, suspension, salary reduction, reprimand, etc.

On the other hand, POSCO will not be responsible for any fine or cost, etc. if a civil or criminal penalty is imposed on its employees for violation of the global anti-corruption laws and standards.

## Tax Policy

- ◆ POSCO diligently reports taxes and fulfills payment obligations in accordance not only with domestic laws and regulations but also with those of each country in which we do business. POSCO diligently fulfills its obligations as a taxpayer, such as by submitting data stipulated by relevant laws to the tax authorities of each country based on our value of transparency.
- ◆ In carrying out transactions with special-interest parties, POSCO’s principle is to abide by the OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations and the laws of each country. For transfer price transactions with overseas special-interest parties, POSCO prepares Master File, Local File, and Country-by-Country Report with outside tax experts to manage its performance.
- ◆ POSCO complies with the laws and regulations of each country in which it does business, diligently fulfills its tax obligations, and does not enter into transactions or contracts to transfer income between countries for the purpose of exploiting the differences in tax laws or loopholes in the international tax systems. POSCO ensures that taxable income is distributed consistently with the value created in each country where POSCO conduct its activities. We do not use tax havens that unjustly reduce tax burdens, and we diligently fulfill our tax obligations in international transactions through normal tax structures.
- ◆ All employees in charge of tax affairs at POSCO will comply with all tax regulations of the relevant countries in accordance with POSCO’s tax policy and conduct business while maintaining a relationship that values transparency with local tax authorities.
- ◆ While POSCO lawfully pays taxes, we do appeal against claims of unreasonable taxation through a legitimate process such as a trial or administrative litigation. Any increase in growth gained from utilizing these tax reduction methods are shared with local communities.
- ◆ Tax risks that occur throughout POSCO’s global businesses are reviewed and assessed for compliance with domestic and international regulations. Some examples of tax risks include investment in new businesses, strengthening competitiveness in existing businesses, corporate restructuring. In reviewing such risks, decisions are made based on advice from outside tax experts and tax authorities.

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