Green Tomorrow, with POSCO
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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Telephone : +82 2 3457 0114
E-mail : sustainability@posco.com
Website : www.posco.com
Corporate Citizenship Website : corporatecitizenship.posco.com
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.
### Directions for ESG of POSCO as a Corporate Citizen & Activities for UN SDGs

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<th>Category</th>
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<td>Respond to climate change</td>
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<td>Strengthen employee health management</td>
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<td>Foster talents and strengthen competences</td>
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<td>Support youth employment/startups</td>
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<td><strong>Fundamentals</strong></td>
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<td>Strengthen independence of the board of directors</td>
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<td>Implement transparent tax policy</td>
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<td>Enforce preemptive risk management</td>
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<td>Information security</td>
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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.

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

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.
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 an 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.
Goverance

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.

Holding company (surviving corporation)

When a new entity is founded in the future, it will become an unlisted subsidiary.

<table>
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<tr>
<th>POSCO (unlisted new entity)</th>
<th>P-Int’l</th>
<th>P-E&amp;C</th>
<th>P-Energy</th>
<th>P-Chemical</th>
<th>Lithium and nickel</th>
<th>Hydrogen</th>
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<td>split-off of steel business</td>
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Goverance 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 Environment Health Operation (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-sun 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.
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

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<tr>
<th>ESG Committee</th>
<th>Audit Committee</th>
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<tbody>
<tr>
<td>Chairperson: Min-ho Lee</td>
<td>Chairperson: Jae-hwan Park</td>
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<tr>
<td>Jae-hwan Park, Non-Executive Director</td>
<td>Min-ho Lee, Non-Executive Director</td>
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<tr>
<td>Ji-yong Kim, Executive Director</td>
<td>Si-woo Lee, Executive Director</td>
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<td>Duk-il Yoon, Executive Director</td>
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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 they offer 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.

1. Ethics Policy and System
   - Establishment of governance and strategy
   - Establishment and revision of the Code of Ethics and Practice Guidelines

2. Ethics Training
   - Ethics pledge and virtual/in-person training customized for employees

3. Ethics Assessment
   - Regular surveys and intermittent reporting

4. Measures against Unethical Behavior
   - Disciplinary actions for offenders and protection of whistleblowers

5. Change Management
   - Coaching for department heads and departments

6. Operational Goals
   - To create a better company together by practicing ethics and respect for humanity

Key Operational Directions

- Contribute to creating collaborative value with business partners by practicing ethics
- Roll out preventive and detection activities in the era of digital contact
- Expand human rights management activities to embrace diversity and create a Great Work Place (GWP)
- Review work and innovate working methods from the "Zero-Base" perspective
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.
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.

Receipt of grievance reports (counseling requests)

- Email: Unethical conduct and bullying (ethics@posco.com) and sexual harassment (humanrights@posco.com)
- Phone: Unethical conduct, bullying and sexual harassment

Fact check and request for action

After fact-finding, request disciplinary action if necessary

Status of counseling for unethical conduct and sexual harassment

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.
Change Management

Improve activities that reflect the results of ethics sessions for executives, department heads and section heads.

After providing feedback on the results of the ethics survey of leaders, we provide specifically targeted customized training to help them improve their ethical conduct.

Department-customized ethics consulting

In 2021, POSCO conducted customized preventive training and coaching activities for some departments deemed to have unethical conduct risks according to the ethics sessions for leaders. After interviewing relevant department members, we devised improvement plans and supported the departments to help them identify and address issues autonomously via ethical consulting for the leaders of the relevant departments.

Key Contents of Ethics Consulting for Leaders in 2021

- **Work environment**: Promotion of three office tasks, ensuring an atmosphere of careful listening and consideration, avoiding forced overtime work, prevention training, stimulation of communication, etc.

- **Unethical work**: Potential for defrauding in personal interests, data processing, unethical conduct related to stakeholders, etc.

- **Other**: Other matters needing improvement, expectations of group heads and group members, etc.

- **Respect for humanity**: Words and actions between group heads and group members, sexual harassment, bullying, discriminatory treatment, etc.

Actions taken against unethical behaviors

<table>
<thead>
<tr>
<th>Category</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of unethical behavior cases reported</td>
<td>No. of Cases</td>
<td>340</td>
<td>412</td>
<td>356</td>
<td>322</td>
</tr>
<tr>
<td>No. of disciplinary measures taken</td>
<td>No. of Cases</td>
<td>109</td>
<td>105</td>
<td>103</td>
<td>71</td>
</tr>
<tr>
<td>No. of people who received disciplinary actions</td>
<td>No. of People</td>
<td>273(100%)</td>
<td>360(100%)</td>
<td>220(100%)</td>
<td>206(100%)</td>
</tr>
<tr>
<td>Disciplinary actions</td>
<td></td>
<td>103(38%)</td>
<td>134(35%)</td>
<td>83(38%)</td>
<td>48(23%)</td>
</tr>
<tr>
<td>Warnings or less</td>
<td></td>
<td>169(62%)</td>
<td>167(55%)</td>
<td>137(62%)</td>
<td>157(77%)</td>
</tr>
</tbody>
</table>

Support Activities for Ethics Management of Business Partners and Suppliers

To expand ethics management for all business partners, POSCO has shared its ethics management infrastructure and expertise through customized consulting, and supported the introduction of an ethics management system for its business partners. Starting with five companies in 2020, POSCO has supported 11 partners with the introduction of the code of ethics and an ethics system, the establishment of a reporting center for unethical behavior, the provision of ethical training and campaigns and counseling for ethical dilemmas. Through such support, we help our partners to realize sound ethics management.

In 2021, POSCO supported the ethics management activities of partners and suppliers through an online communication channel on our corporate website called “Partner Ethics Counseling Center.”

In 2021, POSCO supported 29 ethics counseling cases in 2020 and 31 in 2021, we helped solve ethical dilemmas and issues of our partners and suppliers.

Classification | Details of support for partner companies
--- | ---
1. | Introduction of the Code of Ethics and an ethics system
   - Enactment of the Code of Ethics: Code of Ethics, guidelines for preventing sexual harassment, bullying, conflict of interest, etc.
   - Donation of fees earned as a visiting lecturer and implementation of gift return centers
2. | Establishment of Reporting Center for Unethical Behavior
   - Introduction of reporting system and procedures: Rewards and immunity guidelines for reporting unethical behavior, regulations on protecting whistleblower anonymity, etc.
3. | Systematization of ethics training
   - Regular group training: Special lectures for management at partner companies
   - Provision of customized training materials according to consultation results
4. | Ethical dilemma counseling
   - Online ethics counseling: Acceptance of money for congratulations and condolences from stakeholders, complaints such as those regarding construction costs and accidents, issues related to ethics system operations
5. | Sharing of ethics campaign cases
   - Ethics campaign development: Ethical leadership for leaders, healthy corporate after-work culture, etc.
**POSCO Corporate Citizenship Report 2021**

**POSCO CP Management System**

**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 Risk Monitoring**

- 24/7 monitoring
- Compliance risk review
- Self-assessment by working-level department

**CP Policy Establishment and Preventive Activities**

- Support for management CP activities
- Establishment and amendment of compliance guidelines
- Provision of customized training, counseling and information

**Risk Recurrence Prevention and Follow-Up Management**

- Institutional improvement coaching and follow-up measures
- Dispute resolution and recurrence prevention
- Cooperative networking and CP activity evaluation

**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)**

1. Establishment and implementation of the CP standards and procedures
   - Enactment of “Fair Trade Compliance Program Operational Guidelines” [August 2002]
   - Enactment of “Guidelines for Corporate Groups and Disclosures” [March 2018]
   - Enactment of “Fair Trade Compliance Guidelines for Overseas Branches” [December 2019]

2. CEO’s commitment to compliance
   - Expression of commitment to fair trade compliance through CEO’s message
   - Reception of annual fair trade compliance pledges

3. Appointment of Compliance Officers
   - Appointment of fair trade officers based on the decisions of the board of directors

4. Development and use of compliance manuals
   - Regular distribution of fair trade compliance manuals for each sector (marketing, purchasing, large corporation assessment)

5. Implementation of continuous and systematic training
   - Provision of regular training on fair trade for working-level departments (procurement, sales)
   - Implementation of hierarchy-based training on fair trade (new employees, managers, etc.)
   - Operation of e-learning programs (Fair Trade Basics, Fair Trade Violations Case Studies)

6. Establishment of an internal monitoring system
   - Reporting of CP performance and plans to the board of directors
   - Operation of internal and external fair trade counseling and reporting centers
   - Provision of consultation on and status reviews of vulnerable areas

7. Disciplinary measures against offenders
   - Adoption of punishment standards according to the verification of illegal acts
   - Prompt enforcement of disciplinary actions against offenders

8. Effectiveness evaluation and improvement measures

9. Operation of the Compliance Council
   - Establishment of Compliance Council comprised of heads of departments related to fair trade (marketing, procurement, etc.)

**POSCO’s Fair Trade Compliance Program**

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.

**POSCO CP Management System**

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**Fair Trade Training**

POSCO provides customized training and coaching on fair trade for relevant departments, overseas branches and Group companies. To improve employees’ understanding of fair trade, POSCO runs an e-learning training program that can be accessed at any time and conducts collective training on fair trade. We also hold regular legal affairs meetings with overseas entities to share key issues and provide relevant compliance guidance for risk prevention.

**Performance in Fair Trade Training in 2021**

<table>
<thead>
<tr>
<th>Total number of people who completed training</th>
<th>Collective training (including webinars)</th>
<th>e-Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,447 people</td>
<td>715 people</td>
<td>3,732 people</td>
</tr>
</tbody>
</table>

**Fair Trade CP Certification System for Partners**

POSCO is the first company in Korea to implement a CP Certification System for partner companies. Based on this, POSCO supports efforts by partners to establish their own internal compliance systems related to fair trade, while offering incentives for exemplary partners that receive a CP certification.
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.
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.
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

**Identification**
- **Step.1** Deriving material issue pool
  - Establishment of material issue pool
  - ESG evaluation and analysis of issues for the steel industry by disclosure agencies
  - ESG policy and regulatory trend analysis
  - Analysis of major issues for other players in the industry
  - Analysis of domestic and international media
  - Review of POSCO’s management strategies, tasks and activities

- **Step.2** Confirming material issues pool
  - Derivation of important material issue pool
  - Total of 33 POSCO-related material issues pool

**Prioritization**
- **Step.3** Executive and employee survey
  - Overview of issue materiality survey
  - Evaluation of materiality and work relevance for each selected material issue
  - Survey subjects
  - POSCO employees

**Validation**
- **Step.4** Material Issue Analysis
  - Kaxis: Business relevance analysis (business materiality)
  - Executive and employee survey
  - POSCO’s management strategies, tasks and activities
  - Stakeholder interview

- **Step.5** Derivation of priorities for material issues
  - Classification of issue importance
  - Selection and reporting of key issues

**Overview**
- POSCO’s management strategies, tasks and activities
- ESG analysis and disclosure requirements
- Policies and regulations
- Activities in the industry
- Stakeholder interview
Matrix for ESG Key Issue Identification

Key issues

1. Work site safety risk management
2. Response to climate change
3. Enhancing energy efficiency
4. Air quality improvement
5. Eco-friendly product innovations
6. Compliance with ethics management requirements
7. Virtuous Cycle of Resources (Use of recycled materials such as steel scrap)
8. Enhancing technological development
9. ESG Management of Supply Chain
10. Mutually Beneficial Labor-Management Relations (Great Workplace - GWP)

Global Disclosure Frameworks and Initiatives

GRI | SASB | TCFD | WEF | SDGs
---|---|---|---|---
2. Response to climate change | GRI 201 (2016) | EM-IS-110a.1, EM-IS-110a.2 | Climate Change | SDGs 7, 11, 13
3. Enhancing energy efficiency | GRI 302 (2016) | EM-IS-130a.1 | Air Pollution | SDGs 7
4. Air quality improvement | GRI 302 (2016) | EM-IS-130a.1 | Ethical behavior | SDGs 16
5. Compliance with ethics management requirements | GRI 205 (2016) | 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) | Dignity and equality | SDGs 8
**POSCO CORPORATE CITIZENSHIP REPORT 2021**

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.

<table>
<thead>
<tr>
<th>Critical Issues</th>
<th>Issue background and Our Approach</th>
<th>KPI</th>
<th>Performances in 2021</th>
<th>Targets for 2022</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workplace safety risk management</td>
<td>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.</td>
<td>Number of injured employees</td>
<td>20</td>
<td>0</td>
<td>p.71</td>
</tr>
<tr>
<td>Climate change responses</td>
<td>Based on the 2030 Carbon Neutral Vision, POSCO has established the 2030 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.</td>
<td>GHG emissions</td>
<td>78.5 million tons</td>
<td>74.8 million tons</td>
<td>p.38–48</td>
</tr>
<tr>
<td>Enhancing energy efficiency</td>
<td>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.</td>
<td>Rate of by-product gases generated</td>
<td>1.17%</td>
<td>0.71%</td>
<td>p.42</td>
</tr>
<tr>
<td>Air quality management</td>
<td>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.</td>
<td>Total emission of air pollutants</td>
<td>61.5 thousand tons</td>
<td>60.8 thousand tons</td>
<td>p.51</td>
</tr>
<tr>
<td>Compliance with ethics management</td>
<td>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.</td>
<td>Completion for ethics training rate</td>
<td>99.9%</td>
<td>100%</td>
<td>p.15, p.127</td>
</tr>
<tr>
<td>Eco-friendly product innovation</td>
<td>Beginning with “INNOVILT,” POSCO has prepared ‘e Autosip’ 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.</td>
<td>Eco-friendly product sales</td>
<td>6.32 million tons</td>
<td>6.4 million tons</td>
<td>p.46</td>
</tr>
<tr>
<td>Virtuous cycle of resources</td>
<td>To ensure that the water resources and by-products of workites 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 workites and recycling most of the by-products generated from the steelsworks across various fields.</td>
<td>By-product reuse rate</td>
<td>98.6%</td>
<td>98.4%</td>
<td>p.52–53</td>
</tr>
<tr>
<td>Enhancing technological development</td>
<td>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.</td>
<td>WTP-F product development cases</td>
<td>51</td>
<td>47</td>
<td>p.35, p.42–43, p.96</td>
</tr>
<tr>
<td>Supply chain ESG management</td>
<td>As a basic principle, POSCO promotes ESG purchases by procuring from suppliers that have eco-friendly operating processes and fulfill their social responsibilities.</td>
<td>Green Purchasing</td>
<td>USD2,661 million</td>
<td>USD2,628 million</td>
<td>p.62</td>
</tr>
<tr>
<td>Realizing a Great Workplace</td>
<td>POSCO has actively provided support for systematically and fairly- selected employees to ensure that they can strengthen their professional capabilities 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.</td>
<td>P-GINP survey results</td>
<td>88 points</td>
<td>87 points</td>
<td>p.75</td>
</tr>
</tbody>
</table>

* 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 emerging risks. (104-109p)
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.

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.

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 subsidiaries, including Samsung Electronics, are conducting joint research and development to develop new technologies and processes to reduce carbon emissions. This is an essential step towards achieving the United Nations’ Sustainable Development Goals (SDGs) and contributing to the global fight against climate change.

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 focus on sustainable development and has been at the forefront of initiatives in the Korean steel industry. As a global leader in the steel sector, POSCO plays a crucial role in shaping the future of the industry and setting a high standard for corporate citizenship. POSCO’s commitment to sustainability is not just about reducing its environmental footprint; it is about creating value for all stakeholders, including customers, suppliers, employees, and the wider society. POSCO’s success in this area has been widely recognized, and the company has been named as one of the world’s leading companies in corporate sustainability.

Moreover, POSCO’s efforts to enhance its business practices and comply with international standards are commendable. The company has actively engaged with stakeholders, including governments, regulatory bodies, and NGOs, to ensure that its operations are guided by ethical principles and best practices. This is particularly crucial in the context of growing global attention to corporate sustainability and environmental responsibility. POSCO’s commitment to sustainability is not just a response to external pressures; it is deeply embedded in the company’s values and strategic objectives. The company has set ambitious targets to reduce its carbon footprint and has put in place comprehensive programs to improve its sustainability performance. POSCO’s success in this area has been widely recognized, and the company has been named as one of the world’s leading companies in corporate sustainability.

POSCO is a global leader in the steel industry, and its commitment to sustainability is a reflection of its strategic vision to become a sustainability-focused company. The company’s focus on sustainability is not just a means to an end; it is a core part of its business strategy. POSCO’s efforts in this area are not just about compliance with regulations and best practices; they are about creating value for all stakeholders and contributing to the development of a sustainable future. POSCO’s commitment to sustainability is an essential part of its strategy to remain competitive in a rapidly changing world.

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.

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Five Major Corporate Citizenship Brands

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

A company you want to grow with
Nurturing a robust supply chain and business ecosystem through collaboration and mutual growth with business partners

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

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 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

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

Challenge With POSCO

Community With POSCO

Life With POSCO

Green With POSCO

Signature
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.

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.

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.
Challenge With POSCO
A company you want to grow with

Openned “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.

“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
22 teams selected, of which 12 teams succeeded in starting a spin-off business.

Biz-Day Matching for 2020-2021
26 cases completed (11 in 2020; 15 in 2021)
- Nordox: Smart Safety Ball, a gas detector
- Curisis: Smart safety vest
- Clean Science: Roll cleaning device with air amplification technology
- Meisa: Construction site data calculation based on images collected by drones
- Nexa: Construction site data calculation based on images collected by drones

Venture Fund Establishment and Investment
POVENTURES has a boost for 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
IMP-supported venture companies valued at a total of KRW 2 trillion
invested by POSCO: KRW 21.8 billion (in 134 companies)
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.

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.

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.

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 (CO₂) 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.

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.
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.

Promoting "Population Education Good Class Sharing Contest" by Public-Private Academic Partnership

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 POSCO. POSCO has registered "Case of POSCO’s Practice of Corporate Citizenship Management Philosophy" as an official case study in several universities in Korea.

Youth Employment and Startup training program

For U Dream,” Broad support to improve employment competitiveness and foster SMART talents

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

POSCO promotes 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

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.

<table>
<thead>
<tr>
<th>Program</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment Academy</td>
<td>2,435 (1,082 Hired)</td>
</tr>
<tr>
<td>AI/Big Data Academy for Youth</td>
<td>567 (271 Hired)</td>
</tr>
<tr>
<td>Startup Incubation School</td>
<td>277 (151 Started business)</td>
</tr>
</tbody>
</table>
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.

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.

Support for art 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.
Green Reporting and Measurement of Corporate Citizenship Value

There is a growing recognition that a company’s real value is determined by integrating the economic value in the financial statements and the social value created through interaction with stakeholders. Global companies have already been measuring and managing the environmental and social impacts of their business activities. In line with this trend, since 2019, POSCO has been measuring environmental and social impacts through corporate citizenship management activities in monetary value. We aim to identify true corporate value through corporate citizenship value measurement and utilize it for decision-making and stakeholder communication. In addition, the Green Reporting framework has also been established and operated to classify and measure environmental costs/profit/pollution (substantial impact)/performance (potential impact) since 2020.

Green Reporting

Since 2021, POSCO has been measuring performance from four perspectives: cost, revenue, emission reduction, and performance (social impact) for achieving carbon neutrality. In addition to measuring corporate citizenship, we want to actively manage carbon, which has a large impact on society. We aim to achieve 2050 carbon neutrality and enhance social value by expanding the production of eco-friendly products that can contribute to eco-friendly demanding industries along with carbon reduction investments.

Corporate Citizenship Value Measurement Category

The measurement of corporate citizenship value consists of 150 detailed indicators based on the three categories of business, society, and people. The activities added every year are updated and managed with new indicators.
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.

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.
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 worldsteel TECO, to promote the exchange of hydrogen-based steelmaking technologies across the steel industry and encourage collaboration at the global level.

HyIS Forum 2021 by the numbers

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>2,028</td>
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<tr>
<td>Presenters</td>
<td>28</td>
</tr>
<tr>
<td>Online, Offline</td>
<td>1,975, 53</td>
</tr>
<tr>
<td>Organizations</td>
<td>348</td>
</tr>
<tr>
<td>Participated</td>
<td>48 countries</td>
</tr>
<tr>
<td>Government agencies</td>
<td>7</td>
</tr>
<tr>
<td>Academic institutions</td>
<td>12</td>
</tr>
<tr>
<td>Investors</td>
<td>9</td>
</tr>
<tr>
<td>Energy companies</td>
<td>1</td>
</tr>
<tr>
<td>Raw materials</td>
<td>1</td>
</tr>
<tr>
<td>Hydrogen suppliers</td>
<td>2</td>
</tr>
<tr>
<td>Engineering companies</td>
<td>5</td>
</tr>
</tbody>
</table>

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

POSCO held the “HyIS: 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 its 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 HyIS 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.
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

Establishment of a cost analysis system (PosPLOT) based on Digital Twin

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.

Application of Smart Safety solutions

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 dress 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.

Establishment of a facility failure prediction system

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.

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.
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 -

38 Achieving Carbon Neutrality
46 Innovating Eco-Friendly Materials
49 Eco-Friendly Steelworks
51 Protecting the Ecosystem: Environmental Management / Recycling of By-products / Biodiversity
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 (Scope1 & 2)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Scope 1 emissions (Unit: million tCO₂)</th>
<th>Scope 2 emissions (Unit: million tCO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017-2019</td>
<td>78.8</td>
<td>77.1</td>
</tr>
<tr>
<td>2020</td>
<td>75.6</td>
<td>77.1</td>
</tr>
<tr>
<td>2021</td>
<td>78.5</td>
<td>77.1</td>
</tr>
</tbody>
</table>

**Energy and greenhouse gas intensity**

<table>
<thead>
<tr>
<th>Year</th>
<th>Energy intensity (Unit: GJ/t-crude steel)</th>
<th>Greenhouse gas intensity (Unit: tCO₂/t-crude steel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>10.2</td>
<td>2.06</td>
</tr>
<tr>
<td>2018</td>
<td>10.0</td>
<td>2.08</td>
</tr>
<tr>
<td>2019</td>
<td>10.1</td>
<td>2.11</td>
</tr>
<tr>
<td>2020</td>
<td>10.4</td>
<td>2.11</td>
</tr>
<tr>
<td>2021</td>
<td>9.9</td>
<td>2.05</td>
</tr>
</tbody>
</table>

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 tCO2/tS, which was a decrease of 2.3% compared to 2.09 tCO2/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

**Steel**
- Expansion of low-carbon competitive products
- Reinforcement of carbon regulations
- Increase in electricity bills
- Increased exposure to natural disasters for steelworks
- Increased cost competitiveness with high-efficiency steel materials

**Secondary battery materials**
- Early reduction of EV subsidies
- Reduced EV demand due to rising price of electricity
- Declining demand due to lagging mileage improvement
- Marketing opportunities in connection with EV steel sheets
- Increased product competitiveness with high-efficiency steel materials

**Hydrogen/LNG**
- Business restrictions when Korea Gas Corporation’s monopoly is maintained
- Fall in prices for crude oil and renewable energy
- Safety issues including economic feasibility of securing hydrogen and explosions
- Expansion of LNG and hydrogen using the government’s 9th power and hydrogen roadmap policy
- Easy to expand new business in connection with the current business (mining area/terminal - power generation)
- CO₂ reduction effect compared to internal combustion vehicles
- Increased cost competitiveness with high-efficiency steel materials
- Increased product competitiveness with high-efficiency steel materials
- Increased cost competitiveness with high-efficiency steel materials
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 emissions trading scheme'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 every year. Furthermore, in a Korean first, 13 POSCO steel products1) were certified in 2019 with the "Environmental Product Declaration (EPD)"2) by the Ministry of Environment. Also, POSCO was the first steel company in Korea to acquire a "low-carbon product" certification3) for steel and hot rolled steel sheets. In 2018, we were the first to receive environmental performance labeling for our Giga Steel products from UL4) 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 CO2 emission units. We respond to such demands by using the EPD certificates. In 2021, we responded to this need with EPD certification of our CO2 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 download5).

1) A total of 13 products including steel sheet, wire rod, hot rolled steel sheet, cold rolled sheet, hot-dip galvanized sheet, electropolitied 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.
## POSCO Carbon Flow and Reduction Technology Status

### Application of CO₂ reduction technologies

1. **Blaze furnace, FINEX, coke furnace and converter byproduct gases are captured, refined, and reused in fuels.**
2. **Power generation is achieved using pressure and recovery of sensible heat from byproduct gas discharged from the fluidized reduction furnace.**
3. **Coal is directly blown into the sintered ore in place of coke.**
4. **Coal moisture control is achieved by controlling the moisture of coal charged into the coke oven.**
5. **Coke dry quenching improves blast furnace efficiency.**
6. **Sensible heat is recovered from gas emitted during the pickling process.**
7. **Reheating energy is saved through direct insertion of hot slabs.**
8. **Energy loss is minimized by reducing transfer times between steel tapping and post-processing.**
9. **Sensible heat is recovered from gas emitted from the heating furnace.**
10. **Heat energy is saved during the pickling process through low-temperature operations.**

### Technologies in development

- Technology to reduce fuel and material consumption by reducing deviations through smarization of blast furnaces, sintering and raw material processes
- Technology for CO₂ separation and recycling from byproduct gases generated in the process
- Technology that replaces a portion of the coal used as a blast furnace reducing agent with hydrogen in the iron ore reduction process
- Low Hot Metal Ratio (HMR) technology to expand the use of iron scrap
- Development of hydrogen-based steelmaking technology based on fluidized bed reactors

### POSCO Carbon Flow and Reduction Technology Status

#### POSCO Carbon Flow and Reduction Technology Status

<table>
<thead>
<tr>
<th>RAW MATERIALS</th>
<th>(Unit: million tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron ore</td>
<td>55.6</td>
</tr>
<tr>
<td>Coal</td>
<td>25.4</td>
</tr>
<tr>
<td>Limestone</td>
<td>6.9</td>
</tr>
</tbody>
</table>

#### Power (GWh) (Unit: GWh)

| Total power usage | 24,492 |
| By-product gas generation | 16,013 |
| LNG power generation | 2,979 |
| Externally purchased electricity (power received) | 2,847 |
| Others          | 2,653 |

* Externally purchased electricity excludes contractions used by third parties in steel mills and external sales.
* Others include heat/pressure recovery power generation.

### By-product gas recovery and utilization

- **46%** Direct reuse of by-product gas for steel processing
- **51%** On-site by-product gas generation
- **3%** External sales of by-product gas

### POSCO Carbon Flow and Reduction Technology Status

#### Raw materials

<table>
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### Product

- **Crude steel production**
- **CO₂ emissions** (Unit: million tCO₂)

#### Crude steel production

- **38.3**

#### CO₂ emissions

- **Emissions from production (Scope1, Scope2)**
  - **78.5**
- **Other emissions (Scope3)**
  - **12.9**

### Avoided GHG emissions (Unit: million tCO₂)

- **Improved fuel efficiency from lightweight body made with high-strength automotive steel sheets**
  - **2.3**
- **Improved efficiency of motors and transformers through use of low core loss electrical steel**
  - **4.5**
- **Use of blast furnace and FINEX slag as substitute cement materials**
  - **7.7**
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 CO₂ from the byproduct gases resulting from the FINEX process. The exhaust gas of our CCUS facility contains 75% CO₂, which is used as a process material in coke ovens and then turned into a coke process byproduct gas. We are also exploring various
ways to utilize the captured CO₂ 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 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 CO2 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 (HyIS: 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.
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.

**Green Eligible Projects Investment Plan**
Investment plan of 1.1 billion euros in secondary battery material for electric vehicles such as lithium and nickel

<table>
<thead>
<tr>
<th>Sustainable Financing</th>
<th>Green bond exchangeable bonds issued in September 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISIN</td>
<td>XS2376482423 (Reg S)</td>
</tr>
<tr>
<td>Date of maturity</td>
<td>September 1, 2026 (5 years)</td>
</tr>
<tr>
<td>Currency/amount of issuance</td>
<td>EUR 1,065,900,000</td>
</tr>
<tr>
<td>Share price</td>
<td>KRW 341,000 (closing price on August 13, 2021) 2,932,480 shares</td>
</tr>
<tr>
<td>Number of shares</td>
<td>45%</td>
</tr>
<tr>
<td>exchanged</td>
<td>POSCO treasury shares</td>
</tr>
</tbody>
</table>

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.

* ESG bonds were transferred to the POSCO Holding's debt following the split-off
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 CO2 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 CO2 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.

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

| WTP product sales volume and sales ratio (2017-2021) |
| 2017 | 2018 | 2019 | 2020 | 2021 |
| 9,877 | 9,612 | 10,114 | 8,739 | 11,026 |
| WTP sales ratio (%) | 30.4 | 28.8 | 29.7 | 25.5 | 32.5 |
| WTP sales volume (1000 tons) |
‘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.

‘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.

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.

A Booth of POSCO at ‘Steel & Metal Korea 2021’
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, 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 and reduce the amount of steel used.

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

**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.

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

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

**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.
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.

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.
**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

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Air Quality Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment in reduction of NOx such as in sintering/power generation/rolling areas (SCR, SNCR, etc.)</td>
<td>7,773</td>
<td>6,247 (80.4%)</td>
<td>KRW 1.4915 trillion (43.7%)</td>
</tr>
<tr>
<td>Investment for reduction of dust scattering in coal yards (silo, dustproof net, etc.)</td>
<td>9,547</td>
<td>2,018 (21.1%)</td>
<td></td>
</tr>
<tr>
<td>Investment for dust collection facilities to reduce fugitive dust in the steelmaking areas (roof dust collector, etc.)</td>
<td>4,658</td>
<td>1,846 (39.6%)</td>
<td></td>
</tr>
<tr>
<td>Investment in Tele-Metering System (TMS), blast furnace dust collecting bleeder facilities, etc.</td>
<td>7,573</td>
<td>3,808 (50.3%)</td>
<td></td>
</tr>
<tr>
<td><strong>Water Quality Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment in wastewater treatment facilities and management systems in raw material areas</td>
<td>510</td>
<td>54 (10.6%)</td>
<td></td>
</tr>
<tr>
<td>Investment in facilities to increase wastewater treatment and purification capacity (BET facilities, etc.)</td>
<td>1,886</td>
<td>401 (21.2%)</td>
<td></td>
</tr>
<tr>
<td><strong>Recycling of Byproducts</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment to increase processing capacity of recycling facilities for slag, dust, sludge, etc.</td>
<td>205</td>
<td>29 (14.0%)</td>
<td></td>
</tr>
<tr>
<td>Installation of waste storage facilities, investment in utility expansions, etc.</td>
<td>238</td>
<td>221 (92.6%)</td>
<td></td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(chemicals, soil, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment in reinforcement of management of hazardous chemical handling facilities (diffusion prevention facilities, warning facilities, etc.)</td>
<td>301</td>
<td>292 (97.1%)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Unit: KRW 100 million*
Protecting the Ecosystem: Environmental Management / Recycling of By-products / 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.

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).

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.

*Based on the plan in December 2021
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.

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, at 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. 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 (Fe₃⁺) in the slag lowering the activity of methanogens and iron in the slag, which are useful for marine ecosystems. POSCO has developed an artificial reef, Triton, and installed Triton reefs in coraline 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.

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

**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 installed an artificial reef, Triton, and installed Triton reefs in coraline 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.
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 roadides 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.
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.

**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 CO₂. 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 m² 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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* Taskforce on Nature-related Financial Disclosures
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 -
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

- Enhance social impact and the corporate citizenship direction through job related contribution activities
- Focus on discovering and resolving urgent social issues with larger business relevance
- Create a culture of trust and communication through strategic communication (storytelling)

Three major areas of focus

- Local community: Creating a sustainable local community
- Future generations and vulnerable groups: Providing opportunities for quality education, supporting self-sufficiency, and creating jobs
- Executive and employee participation: Participating in voluntary contribution activities via Discovering initiatives for contribution opportunities planning and execution

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.

POSCO Social Contribution Expenditure

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Percentage</th>
<th>Total Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social welfare</td>
<td>54.6%</td>
<td>26,791 million KRW</td>
</tr>
<tr>
<td>Sports culture</td>
<td>29.8%</td>
<td>14,907 million KRW</td>
</tr>
<tr>
<td>Talent development</td>
<td>14.5%</td>
<td>8,055 million KRW</td>
</tr>
<tr>
<td>Volunteers</td>
<td>1.1%</td>
<td>498 million KRW</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>54.6%</strong></td>
<td><strong>49,455 million KRW</strong></td>
</tr>
</tbody>
</table>

Society Chest of Korea - Donations for neighbors in need

- POSCO: KRW 10 billion
- Group companies: KRW 2 billion
- Total cumulative hours in 2021: 296,729 hours
- Average volunteer activity per person, per year: 16.0 hours

Enhance social impact and the corporate citizenship direction through job related contribution activities
Focus on discovering and resolving urgent social issues with larger business relevance
Create a culture of trust and communication through strategic communication (storytelling)
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.

<table>
<thead>
<tr>
<th>Name of Activity</th>
<th>Key Content</th>
<th>Key Activities in 2021-2022</th>
<th>Operational Performance in 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sisterhood Villages</td>
<td>• Began in Hagwang Village, Gwangyang in 1998. One department is twinned with one Sisterhood Village, regular connected activities performed.</td>
<td>• Purchase of regional food specialties, assistance in seasonal farming labor. Village facility repairs. Environmental cleanup activities.</td>
<td>• 205 sisterhood villages (123 in Pohang, 82 in Gwangyang)</td>
</tr>
<tr>
<td>Soup Kitchens</td>
<td>• Established in Pohang and Gwangyang in May 2004. Supported operating expenses, such as food and facility costs, for soup kitchens. Meal service with participation of employees.</td>
<td>• Provided meal kits to resolve undernourishment issues related to soup kitchen closures due to COVID-19. Donated rice through funds raised by employees for neighbors in need.</td>
<td>• Operated 5 soup kitchens (3 in Pohang, 2 in Gwangyang). Provided operating expenses totaling KRW 486 million (Pohang: KRW 225 million, Gwangyang: KRW 261 million)</td>
</tr>
<tr>
<td>COVID-19 Aid Activities</td>
<td>• 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. 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.</td>
<td>• Delivered thank-you letters and gift sets. Many employees regularly donated blood, with some employees having donated blood over 200 times.</td>
<td>• Over 300 employees handwrote thank you letters and delivered 3,000 gift sets.</td>
</tr>
<tr>
<td>Installation and Donation of Spacewalk at Hwanho Park in Pohang</td>
<td>• 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. 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.</td>
<td>• At the end of March 2022, a photo and video contest was held with visitors to commemorate the site becoming a landmark.</td>
<td>• Production and installation completed with an investment of KRW 11.7 billion</td>
</tr>
<tr>
<td>Culture and Arts</td>
<td>• Operated a history museum, art gallery and art halls in Pohang and Gwangyang, with complimentary performances and exhibitions for all local residents.</td>
<td>• Visitors to POSCO PR Hall (Park 1538) 19,452 people. Visitors to POSCO History Museum: 16,395 people. Number of exhibitions held at POSCO Museum of Art: 6 exhibitions.</td>
<td></td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Name of activity</th>
<th>Key Activities</th>
<th>Operational Performance in 2021</th>
</tr>
</thead>
</table>
| Beyond (College student volunteer group) | • 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.  
  • For Damupo Whale Village located in Pohang, the Beyond members directly planned and executed a regional revitalization project to regenerate the village with experts.  
  • 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.  
  • 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. | • Beyond members (cumulative): 1,463  
  (domestic 1,340, overseas 123) |

Social Enterprise (POSCO Humans)

• Launched POSCO Humans in January 2013 after establishing the first domestic "Subsidiary-type Standard Workplace for the Disabled (POSWITH)" in December 2007  
  * 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.  
  • 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.  
  • 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  
  • Systems to Support for Disabled Employees  
    - 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 their stable work performances  
    - 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  

• Locations of worksites: Pohang, Gwangyang, Seoul, Songdo (Incheon)  

• 317 disabled employees out of a total of 666 employees (47.6%)
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 3,186 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 (2016-)
  - POSCO Heroes Fellowship (established in 2019) Support for upstanding citizens, or upstanding citizens' children
  - 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

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. Contributions 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.

- **POSCO Educational Foundation**
  - Beneficiaries: 2,205 people
  - Cumulative number of beneficiaries:
    - 129,112 people
  - 12 schools in operation
  - Cumulative donation: KRW 1083.2 billion (1971-2021)
**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.

<table>
<thead>
<tr>
<th>Talent Volunteer Groups</th>
<th>Key Details of Activities</th>
<th>Cumulative number of volunteers as of 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multicultural Friends Volunteer Group</td>
<td>• Supporting multicultural weddings and adaptation to Korean culture through mentoring • Operating various cultural exchange programs including cooking classes for married migrant women and children, Korean traditional music classes, and opportunities to attend sports events</td>
<td>994 people</td>
</tr>
<tr>
<td>Woodcraft Volunteer Group</td>
<td>• Manufacturing and installing customized furniture to support stable residential lives for disadvantaged families • Producing furniture through the talent of employees in the designing, cutting, assembling, and finishing stages</td>
<td>2,046 people</td>
</tr>
<tr>
<td>Cultural Assets Preservation Volunteer Group</td>
<td>• Clearing the environment in and around cultural assets, and developing inherited traditional culture through their management and maintenance</td>
<td>636 people</td>
</tr>
<tr>
<td>Wall Painting Volunteer Group</td>
<td>• Improving the local community environment and providing emotional stability through painting and wall painting</td>
<td>790 people</td>
</tr>
<tr>
<td>Photography Group</td>
<td>• Taking photographs of local elders, underprivileged group family photos, and local community festivals and events</td>
<td>194 people</td>
</tr>
<tr>
<td>Culinary Volunteer Group</td>
<td>• Visiting vulnerable individuals at local children’s centers and disabled person’s welfare facilities and offering handmade bread, refreshments, and side dishes</td>
<td>662 people</td>
</tr>
<tr>
<td>Musical Talent Group</td>
<td>• Performing with band at local community events and when visiting disadvantaged individuals</td>
<td>365 people</td>
</tr>
<tr>
<td>Landscaping Volunteer Group</td>
<td>• Pruning welfare facility and public facility trees, trimming shrubs, and planting flowering trees</td>
<td>594 people</td>
</tr>
<tr>
<td>House Repair Volunteer Group</td>
<td>• Visiting vulnerable individuals’ residences and offering wallpapering, electrical repair, dustproof net replacement, and household rearrangement services to ensure pleasant living spaces</td>
<td>1,361 people</td>
</tr>
<tr>
<td>Calligraphy Volunteer Group</td>
<td>• Providing messages of hope and education to children, youth, and senior citizens in local communities through calligraphy</td>
<td>1,426 people</td>
</tr>
<tr>
<td>Clean Ocean Volunteer Group</td>
<td>• Executing marine ecosystem preservation activities with POSCO employees • Restoring coastal and undersea environments in fishing regions near local communities</td>
<td>1,830 people</td>
</tr>
<tr>
<td>Study Guide Volunteer Group</td>
<td>• Supporting learning guidance for children and adolescents using local children’s centers • Supporting growth with a positive mindset by mentoring for adolescents’ concerns and improving their intellectual abilities</td>
<td>1,350 people</td>
</tr>
<tr>
<td>Good Voice Volunteer</td>
<td>• Provide a voice recording book by record directly to support the learning ability and psychological stability of visually impaired and multicultural families</td>
<td>114 people</td>
</tr>
<tr>
<td>Fancy Balloon Art Volunteer</td>
<td>• 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</td>
<td>561 people</td>
</tr>
<tr>
<td>Happiness Joint Washing Volunteer</td>
<td>• Provide integrated home welfare services such as collecting, washing, drying, and delivering futon laundry for families with disabilities and also examine the home environment</td>
<td>428 people</td>
</tr>
</tbody>
</table>
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. 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.

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)

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 4,544 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

Future Generations
We support the healthy growth of future generations.

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

The Disabled
We support better lives for those with disabilities.

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

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

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.]
Supply chain management strategy

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

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 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)

<table>
<thead>
<tr>
<th>Year</th>
<th>Target Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>2,661</td>
</tr>
<tr>
<td>2023</td>
<td>3,024</td>
</tr>
<tr>
<td>2025</td>
<td>3,490</td>
</tr>
</tbody>
</table>

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.

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.

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.

Supplier Code of Conduct Summary

POSCO Group Supplier Code of Conduct

**Respect for Human Rights**
- Voluntary employment
- Wages and benefits
- Occupational Safety
- Environmental license

**Health and Safety**
- Prohibition of child labor and discrimination
- Humane treatment and prohibition of discrimination
- Emergency response measure
- Prevention of pollution and reduction of resource use

**Environment**
- Comply with working hours
- Freedom of association
- Hygiene working environment, education
- Material regulation

**Ethics and Fair Trade**
- Business integrity
- Intellectual property protection
- Business integrity
- Strengthening quality control in the supply chain

**Management System**
- Duties and responsibilities of management
- Regulations and customer requirements
- Duties and responsibilities of management

**Shared Growth and Social Contribution**
- Quality management
- Social contributions
- Audit and evaluation/ procedure for corrective action

**Quality management**
- Duties and responsibilities of management
- Shared growth

**Purchasing Strategies by Item Characteristics**
- Routine: minimal costs
- Bottleneck: stabilized procurement
- Critical: strategic collaboration
- Leverage: enhanced competition

**Difficulty of procurement**
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 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 each sourcing group.

Supplier Relationship Management (SRM) provides an ESG qualification review, verification of ESG risks including any violations of environmental and fair trade laws, occurrence of various accidents, and unfair labor practices.

• Evaluation procedures: Contract, delivery • performance evaluation • reflection of supplier objection • evaluation confirmation
• Evaluation rating: Excellent (90 points or more), Good (80 points or more), Average (60 points or more) Weak (55 points or more), Poor (less than 55 points)

Step 1 - Supplier Registration
• Disclosure of detailed registration criteria for each sourcing group

Step 2 - Performance Evaluation
• SRM Assessment
  (quarterly and annual)

Step 3 - Follow-up
• Incentive, Penalty
• Sourcing Refresh / Quality Audit

Step 4: Constant Risk Management

Supplier’s application for registration
Basic qualification test
• Including ESG qualification review
  - fact-finding + quality test

Excellent supplier sourcing

Evaluation items (points) and evaluation details

<table>
<thead>
<tr>
<th>Quality</th>
<th>Credit Rating</th>
<th>Delivery Price</th>
<th>Price Competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fail, defective PosQC certification</td>
<td>Environment and safety training, anti-corruption activities, etc., etc.</td>
<td>Compliance Program (CP) certification rating, health and safety management system certification, etc.</td>
<td>Occurrence of safety disasters, unfair sanctions</td>
</tr>
</tbody>
</table>

Key items of ESG evaluation

<table>
<thead>
<tr>
<th>E</th>
<th>S</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Number of eco-friendly certifications (certification marks, ISO 14001, etc.)</td>
<td>- Community service</td>
<td>- Anti-corruption activities</td>
</tr>
<tr>
<td>- Environmental, Health and Safety (EHS) certifications</td>
<td>- Training performance for environment and safety, fair trade, and anti-corruption</td>
<td>- POSCO Wink's rate of participation</td>
</tr>
<tr>
<td>(KOSHA 18001 or ISO 45001)</td>
<td>- Number of days of payment</td>
<td>- BS Projects</td>
</tr>
<tr>
<td>- Green purchasing performance</td>
<td>- 1st and 2nd win-win growth agreements signed</td>
<td>- POSCO-customized CP certification rating</td>
</tr>
</tbody>
</table>

Follow-up measures for the supplier evaluation: Selection of PHP suppliers according to evaluation results, restriction on participation in bidding for underperforming suppliers

Incentive & Penalty

Incentive
- (Annual) Outstanding supplier from Excellent-rated PHP/POSCO Honored Partner/ Selection
- Priority negotiating rights, payment exemption on various contract-related deposits, etc.

Penalty
- (Quarterly) Poor-onces / Restriction on participation in bidding for one month
- (Quarterly) Poor-twice in a row / Restriction on participation in bidding for three months
- (Yearly) Poor-onces Cancellation of sourcing group registration or restriction of participation in sourcing group bidding for one year

• Constant monitoring of suppliers’ monitoring and quality audit

ESG Risk Management
- Unpredictable Safety accidents
- Child labor, Human rights violation, etc.

Procurement Risk Management
- Changes in credit rating compared to registration standards
- Bidding participation results, etc.
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.

**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**

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

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

**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.
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.

Ratio of registered products among newly introduced products for 2021: 64%
POS CO 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.

POS CO Corporate Citizenship Report 2021

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.

POS CO Youth Dream Job Matching

Number of recipients by SMEs trading with POSCO: 177 people

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

Activity direction

- Benefit Sharing System
  - Incorporate company-wide performance sharing activities into a new type of task and revitalize 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.

- 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.

- 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.

- 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 hires young job seekers majoring in science and engineering to strengthen their smart capabilities.

- Shared Growth Consulting Section
  - Conduct occasional venture group company matching, and identify and expand business-related opportunities.
  - Expand matching of target group companies from existing 5 companies and expand business-related items to new growth areas other than steel.

- Payment Protection Program for Subcontractors
  - 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: 3.60%p

- 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: 3.60%p

- Venture Businesses Cultivation
  - Conduct occasional venture group company matching, and identify and expand opportunities by spinning off 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.
**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

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**Responsible Minerals Policy Framework**

**Key areas of management**

- **Policy / Leadership**
- **Supplier Identification / Participation**
- **Process /Organization**
- **Risk Identification /Mitigation**
- **Stakeholder Competency**
- **Transparent disclosure**

**Responsible Minerals Management Roadmap**

- **Global top standard**
- **Active participation stage**
- **Introductory stage**

- **Early stage**
  - First half of 2020
  - Second half of 2020

- **2021**
- **2022**
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

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

72 Safety and Health
76 Great Work Place (GWP)
80 Diversity and Inclusion
Health and Safety

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.

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.

1. 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.
2. 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.

9 Elements of the Health and Safety Management System
Executive’s commitment and objective
Safety organization and work force
Interactive communication
Safety management of contractors
Compliance with rules and standard procedures
Accident/Incident investigation and prevention
Safety education and training
Health management
Evaluation and improvement

CEO
SHE Division
Steel Production & Technology Division
Steelworks
Safety Planning Office
Health Planning Office
Environment Planning Office
Safety & Disaster Prevention Group
Health Promotion Center
Process Safety Technology
Process Safety Section
New
Existing
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 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 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 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.

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
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.

Results of 2021 Safety Activity Diagnosis (Korea Occupational Safety Association, September-October 2021)
It is determined that POSCO’s safety activity directions for responding to changes in internal and external environments, such as reinforcing safety regulations and changing social perceptions, and preventing serious accidents, are appropriate. The reinforcement of the safety organization system and workforce, implementation of the six major safety measures, participation of all contractors, activities to identify harmful risks, and support for strengthening the safety competency of partners are excellent.

Safety Training Performance (2021)

<table>
<thead>
<tr>
<th>Position</th>
<th>POSCO</th>
<th>Partner</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader or higher</td>
<td>3,395</td>
<td>15,490</td>
<td>18,795</td>
</tr>
<tr>
<td>Assistant manager / Section head</td>
<td>16,557</td>
<td>10,081</td>
<td>26,638</td>
</tr>
<tr>
<td>General staff</td>
<td></td>
<td></td>
<td>15,490</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Position</th>
<th>POSCO</th>
<th>Partner</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader or higher</td>
<td></td>
<td></td>
<td>10,081</td>
</tr>
<tr>
<td>Assistant manager / Section head</td>
<td></td>
<td></td>
<td>6,576</td>
</tr>
<tr>
<td>General staff</td>
<td></td>
<td></td>
<td>16,557</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Position</th>
<th>POSCO</th>
<th>Partner</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader or higher</td>
<td></td>
<td></td>
<td>2,238</td>
</tr>
<tr>
<td>Assistant manager / Section head</td>
<td></td>
<td></td>
<td>2,014</td>
</tr>
<tr>
<td>General staff</td>
<td></td>
<td></td>
<td>1,577</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disease Prevention</th>
<th>POSCO</th>
<th>Partner</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health checkup treatment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical therapy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vaccinations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early detection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevention of occupational diseases</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Promotion Activities</th>
<th>POSCO</th>
<th>Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement of lifestyles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No smoking, no drinking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workouts, and healthy eating habits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of patients with chronic health problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation of psychological counseling programs to promote mental health</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* MSDS : Material Safety Data Sheets
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 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.
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.

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.

Great Work Place (GWP)

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.

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.

Teaching core technology & know-how

POSCO Master

Korea’s top technical expert

World-class technical expert

TL3

Possible rotation work and emergency response measures within the organization

TL4

Korea’s top technical expert

TL5

POSCO Master

Teaching core technology & know-how

TL1

Performing daily tasks with guidance from a senior employee

TL2

Supporting other tasks in the organization

Development Through Work
• Project/Problem-based Learning Courses (Problem-solving techniques based on project links)
• Practice-Feedback
• YouTube/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

Establishment of a virtuous cycle structure of field robustness through explicit knowledge of field technical skills and key technologies, and know-how
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.

POSCO CORPORATE CITIZENSHIP REPORT 2021

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.

New Collar Level Certification Program

Curriculum

- Level 1 (Beginner)
  - New Collar Level 1_Workbench
  - New Collar Level 1_R
  - New Collar Level 1_Python

- Level 2 (Semi-Expert)
  - New Collar Level 2_Workbench
  - New Collar Level 2_R
  - New Collar Level 2_Python

- Level 3 (Expert)
  - New Collar Level 3_Ai Master’s Program Study Abroad (Selected)
  - POSTECH AI Applied AI Expert Course (Selected)
  - AI Doctoral Program Study Abroad (Selected)

- Level 4 (Master)
  - New Collar Level 4 curriculum and 1 Smart Task (Participation in Collaboration)

Certification Requirements

- Level 1 (Beginner)
  - Pass the evaluation test after completing the Workbench, R or Python course
  - Choose from group training (3 days) or e-learning (24 hours)

- Level 2 (Semi-Expert)
  - Pass the data analysis and coding competency certification test after completing the Workbench, R or Python course
  - Choose from group training (5 days) or e-learning (64 hours)

- Level 3 (Expert)
  - Completion of Level 3 curriculum and 1 Smart Task (Participation in Collaboration)

- Level 4 (Master)
  - Completion of Level 4 curriculum and 1 Smart Task (Task Leader Role)
  - Completion of Level 3 curriculum and 3 Smart Tasks (At least 1 Task Leader Role)

Competency Development Program

<table>
<thead>
<tr>
<th>Technician-Level Training on Steelworks Core Technologies at steelworks</th>
<th>Operating Results (Output)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of trainees in 2021: 1,067 Percentage of trainees who completed training: 6%</td>
<td>Early training completed for experts in each field and strengthening of smart technology capacity to prepare the company for the retirement of key long-serving employees with core technology of steelworks * UCC (POSTube) production to share tips on various functions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leadership Training on Strengthening Management Leadership Skills (Leadership School and Special Lectures by Position)</th>
<th>Operational Performance (Outcome)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of trainees in 2021: 4,158 Percentage of employees participating in training: 24%</td>
<td>Contributing to a more positive corporate culture by establishing hierarchy-based action plans on leadership behavior changes and providing practical guides</td>
</tr>
</tbody>
</table>

* 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
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.
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.

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%.

Evaluation Process

Each employee is subject to a three-stage performance evaluation each year based on the employee’s own work accomplishments and their self-evaluation results. This system allows the employee to assess their capabilities and overall performance, and helps the manager provide the necessary coaching and feedback when needed.

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.

Union membership rate for 2021 was 37.93% (as of December 2021)
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 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.

Diversity and Inclusion

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.

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

Detection of human rights risk and potential issues (POSCO Group and supply chain) → Preventive actions and improvement efforts

Monitoring → Performance evaluation and sharing (Corporate Citizenship Report)

Continuous improvement efforts
Ethics and Human Rights Risk Assessment Results

<table>
<thead>
<tr>
<th>Classification</th>
<th>Subject to evaluation</th>
<th>Responded to questionnaire</th>
<th>Personnel action taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overseas entity</td>
<td>2018: 62 companies</td>
<td>52%</td>
<td>2 persons</td>
</tr>
<tr>
<td></td>
<td>2019: 30 companies</td>
<td>59%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2020: 51 companies</td>
<td>68%</td>
<td>5 persons</td>
</tr>
<tr>
<td></td>
<td>2021: 60 companies</td>
<td>69%</td>
<td>2 persons</td>
</tr>
<tr>
<td>Partner</td>
<td>2018: 101 companies</td>
<td>41%</td>
<td>-</td>
</tr>
</tbody>
</table>

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.

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.

Method of implementation
1. When human rights risks are detected at major domestic and overseas worksites, POSCO analyzes the situation and sets up improvement measures through human rights due diligence.
2. In principle, due diligence shall be conducted by an internal expert, and may be conducted together with an external expert if necessary.
3. In some cases, interviews are conducted with the potentially affected groups and relevant stakeholders.
4. The potential and actual impacts must be identified during the human rights due diligence. For the potential impacts, measures to prevent or mitigate potential impacts are shared at the company-wide level and the relevant procedures are implemented, and the actual impacts that have already occurred must be subject to remedies and resolutions.
5. Human rights due diligence is conducted using a checklist that diagnoses the key elements related to human rights management.
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

<table>
<thead>
<tr>
<th>Checklist</th>
<th>Items (11 items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment of human rights management system</td>
<td></td>
</tr>
<tr>
<td>Non-discrimination in employment</td>
<td></td>
</tr>
<tr>
<td>Protection of consumer human rights</td>
<td></td>
</tr>
<tr>
<td>Prohibition of forced labor</td>
<td></td>
</tr>
<tr>
<td>Protection of child labor</td>
<td></td>
</tr>
<tr>
<td>Protection of occupational safety</td>
<td></td>
</tr>
<tr>
<td>Responsible supply chain management</td>
<td></td>
</tr>
<tr>
<td>Protection of human rights of local residents</td>
<td></td>
</tr>
<tr>
<td>Protection of environmental rights</td>
<td></td>
</tr>
<tr>
<td>Prevention of bullying and sexual harassment</td>
<td></td>
</tr>
<tr>
<td>Guarantee of freedom of assembly and collective bargaining</td>
<td></td>
</tr>
</tbody>
</table>

Results of Human Rights Assessment for Overseas Offices in 2021

- Average of Assessment in Headquarters (Integrity Management Office)
- Self-Assessment

<table>
<thead>
<tr>
<th>Item</th>
<th>Average of Assessment in Headquarters (Integrity Management Office)</th>
<th>Self-Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment of human rights management system</td>
<td>99.3</td>
<td>99.7</td>
</tr>
<tr>
<td>Non-discrimination in employment</td>
<td>100</td>
<td>99.7</td>
</tr>
<tr>
<td>Protection of consumer human rights</td>
<td>97.9</td>
<td>95.8</td>
</tr>
<tr>
<td>Prohibition of forced labor</td>
<td>94.1</td>
<td>94.2</td>
</tr>
<tr>
<td>Protection of child labor</td>
<td>94.0</td>
<td>93.8</td>
</tr>
<tr>
<td>Protection of occupational safety</td>
<td>94.3</td>
<td>94.0</td>
</tr>
<tr>
<td>Responsible supply chain management</td>
<td>94.3</td>
<td>93.8</td>
</tr>
<tr>
<td>Protection of human rights of local residents</td>
<td>99.4</td>
<td>100</td>
</tr>
<tr>
<td>Protection of environmental rights</td>
<td>99.4</td>
<td>100</td>
</tr>
<tr>
<td>Prevention of bullying and sexual harassment</td>
<td>99.2</td>
<td>99.7</td>
</tr>
<tr>
<td>Guarantee of freedom of assembly and collective bargaining</td>
<td>99.2</td>
<td>99.7</td>
</tr>
</tbody>
</table>
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.

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate of employment for the disabled</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>67</td>
</tr>
<tr>
<td>2019</td>
<td>86</td>
</tr>
<tr>
<td>2020</td>
<td>89</td>
</tr>
<tr>
<td>2021</td>
<td>88</td>
</tr>
</tbody>
</table>

* POSCO direct employees answered (excluding interns)
### 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, 39% 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

<table>
<thead>
<tr>
<th>Pregnancy period</th>
<th>Birth period</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 days of fertility leave / KRW 1 million for infertility treatment support</td>
<td>10 days or more of parental leave</td>
</tr>
</tbody>
</table>

- **Infertility Leave**
  - 10 days per year
  - (Six Paid Leave, Split available)
  - Infertility Treatment Expense
  - Up to KRW 1 million
  - (Individual burden among benefits items)

- **Childbirth subsidy paid**
  - First child: KRW 2 million
  - Second child: KRW five million
  - Spouse Maternity Leave
  - Birth of one child, 10 days
  - Birth of twins, 15 days
  - Birth of triplets, 20 days
  - (Paid, Split leaves available)

- **Leave before and after childbirth**
  - Mandatory use of 90 days
  - (120 days for multiple fetuses)

- **Paid leave for fetal examination and miscarriage or stillbirth**
  - (for pregnant women and spouses)

- **Support for children’s tuition and fees**
  - From kindergarten through university, up to KRW 80 million for two children or less, KRW 120 million for three children, KRW 160 million for four or more children

- **Expansion of daycare centers**
  - Pohang, Gwangyang, and Seoul
  - Operating six daycare centers

- **A transitional time selection system**
  - Work four or six hours per day
  - (Full payment of basic wage)
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 -
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, and the prices of Chinese steel, iron ore, coal, nickel and other raw materials. To ensure our capacity to monitor and act in any scenario, we strengthen our risk management system by comparing the planned to actual performance.

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.

External Risk Monitoring System

**Economic / Financial Risks**
- Real economy, raw materials, oil prices, interest rates, FX rates, trade conflicts

**Steel Risks**
- Steel market conditions, raw materials market conditions, demand-side industries, competitor trends, imported goods, steel industry restructuring

**Industrial risk**
- Construction, energy, material, ICT, trade, new businesses

**Emerging Nations Risk**
- China, Indonesia, Thailand, Vietnam, Myanmar, India, Mexico, Brazil, Turkey, Iran

**Risk Management System**

- **Business Risk**
  - Strategy, investment, finance, career
  - Economic/financial, steel, industry, emerging countries

- **Non-business Risk**
  - Operations, compliance, reputation, ethics

- **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.1) 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 evaluation2) and the operational evaluation.3) 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.
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) 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

- Autonomous risk management
- Risk Management System (RMS)
- Relevant departments
- Corporate Audit Office
- Selection of checklists and application of audit results
- Real-time autonomous risk prevention
- Support for risk prevention

Internal Accounting Control System

- Development of operational status review plan
  - Devises improvement plans for missed targets and shortcomings from the previous year, provide process mapping for relevant departments and affiliates, and announce main agendas and directions for key inspections.

- Control activity design evaluation
  - A specific transaction is sampled, the process is traced from the beginning to the end of the transaction according to the transaction evidence, the related risks are identified, and the control activity design is reviewed and evaluated.
  - Check whether the changes in organization and process were properly applied.

- Operational evaluation of control activities
  - Verify the evidence and approval documents reviewed by the responsible personnel in the field and the performer of controls (leader) regarding important control activities.
  - Verify evidence of the control execution and results.

- Auditing and reporting on the internal accounting control system
  - Execute the certification audit conducted by the auditing firm for the design and operation evaluation conducted by the company.
  - Review the operational status of internal accounting controls and report the results to the general meeting of shareholders, the Board of Directors and the Audit Committee through representatives.

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- A specific transaction is sampled, the process is traced from the beginning to the end of the transaction according to the transaction evidence, the related risks are identified, and the control activity design is reviewed and evaluated.
  - Check whether the changes in organization and process were properly applied.
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**

<table>
<thead>
<tr>
<th>Stakeholder Group</th>
<th>Communication Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shareholders / Investors</td>
<td>• Investor relations (IR) session (quarterly)</td>
</tr>
<tr>
<td></td>
<td>• Disclosure</td>
</tr>
<tr>
<td></td>
<td>• Face-to-face meetings with investors</td>
</tr>
<tr>
<td>Customers</td>
<td>• Customer satisfaction surveys</td>
</tr>
<tr>
<td></td>
<td>• Early Vendor Involvement (EVI) forums</td>
</tr>
<tr>
<td>Partners / Suppliers</td>
<td>• Information-exchange seminars with suppliers</td>
</tr>
<tr>
<td></td>
<td>• Meetings with POSCO Honored Partners (PHPs)</td>
</tr>
<tr>
<td>Local Community</td>
<td>• Local presentations and discussions</td>
</tr>
<tr>
<td></td>
<td>• Exchanges with NGOs</td>
</tr>
<tr>
<td>Employees</td>
<td>• Labor unions/Labor-Management Council</td>
</tr>
<tr>
<td></td>
<td>• Young Board</td>
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<tr>
<td></td>
<td>• Employee satisfaction surveys (P-GWP: POSCO Great Work Place)</td>
</tr>
<tr>
<td></td>
<td>• POSCO Today (POSCO internal webpage)</td>
</tr>
<tr>
<td></td>
<td>• Operational meetings</td>
</tr>
</tbody>
</table>
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.

Commitments & 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, which are 1) Selection of a Sustainability Charter Member*, 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).
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

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.

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.
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.

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.

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

1. Detection: Detection of security threats using the comprehensive security control system and internal/external information collection
2. Analysis: Analysis of breach and the scope of damage, Preventive measures enacted if necessary
3. Alerting: Company-wide announcement or notification to specific departments depending on parties affected, and requests for follow-up actions
4. Response: Prevention of the spread of the breach, follow-up actions, Cause analysis and policy improvements

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

General security threat situation that has no impact on internal or external systems

A situation in which the threat of a security breach is elevated due to external security issues

A situation that is solvable and has limited impact on specific services or work

A situation in which measures are being delayed, affecting specific services and work

A situation in which a continuous threat exists, seriously affecting IT services and work
Tax Management

Tax Management policy

1. 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. 

2. POSCO maintains a transparent relationship with the tax authority of each country and provides relevant financial documents to tax-related parties upon request.

3. 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.

4. 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.

5. 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.

6. 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.

7. 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

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.

<table>
<thead>
<tr>
<th>Region</th>
<th>Name of worksite</th>
<th>Major Business</th>
<th>Number of employees</th>
<th>Sales (KRW 100 million)</th>
<th>Operating Profit (KRW 100 million)</th>
<th>Corporate Income Tax (KRW 100 million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>POSCO</td>
<td>Manufacture and sale steel materials</td>
<td>18,252</td>
<td>399,202</td>
<td>66,496</td>
<td>18,016</td>
</tr>
<tr>
<td></td>
<td>POSCO STEELEON</td>
<td>Manufacture and sale steel materials</td>
<td>432</td>
<td>13,290</td>
<td>1,407</td>
<td>269</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td></td>
<td></td>
<td>454,444</td>
<td>11,577</td>
<td>2,433</td>
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<tr>
<td>Southeast Asia</td>
<td>PT. KRAKATAU POSCO</td>
<td>Manufacture and sale steel materials</td>
<td>2,301</td>
<td>26,946</td>
<td>5,753</td>
<td></td>
</tr>
<tr>
<td></td>
<td>POSCO-Vietnam</td>
<td>Manufacture and sale steel materials</td>
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<td>11,990</td>
<td>407</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>POSCO Thainox</td>
<td>Manufacture and sale stainless steel plates</td>
<td>545</td>
<td>7,152</td>
<td>367</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>POSCO-VST</td>
<td>Manufacture and sale stainless steel plates</td>
<td>366</td>
<td>6,407</td>
<td>335</td>
<td>70</td>
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<tr>
<td></td>
<td>POSCO VIETNAM HOLDINGS (previous POSCO-VNPC)</td>
<td>Processing and sale steel materials</td>
<td>355</td>
<td>6,090</td>
<td>308</td>
<td>59</td>
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<tr>
<td></td>
<td>POSCO-TBPC</td>
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<td>286</td>
<td>4,876</td>
<td>210</td>
<td>44</td>
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<tr>
<td></td>
<td>Others</td>
<td></td>
<td></td>
<td>73,805</td>
<td>2,133</td>
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<tr>
<td>China</td>
<td>Zhangiagang Pohang Stainless Steel</td>
<td>Manufacture and sale stainless steel plates</td>
<td>1,742</td>
<td>37,473</td>
<td>1,470</td>
<td>228</td>
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<tr>
<td></td>
<td>Others</td>
<td></td>
<td></td>
<td>48,016</td>
<td>789</td>
<td>209</td>
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<tr>
<td>Japan</td>
<td>POSCO-JAPAN</td>
<td>Steel trade</td>
<td>38</td>
<td>16,302</td>
<td>237</td>
<td>70</td>
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<tr>
<td></td>
<td>POSCO-Japan PC</td>
<td>Processing and sale steel materials</td>
<td>212</td>
<td>5,523</td>
<td>164</td>
<td>54</td>
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<tr>
<td></td>
<td>Others</td>
<td></td>
<td></td>
<td>8,502</td>
<td>56</td>
<td>28</td>
</tr>
<tr>
<td>India</td>
<td>POSCO Maharashtra</td>
<td>Manufacture and sale steel materials</td>
<td>792</td>
<td>16,795</td>
<td>2,059</td>
<td>311</td>
</tr>
<tr>
<td></td>
<td>POSCO INDIA HOLDINGS (previous P-ICPC)</td>
<td>Manufacture and sale steel materials</td>
<td>365</td>
<td>6,742</td>
<td>288</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>POSCO-IIPC</td>
<td>Processing and sale steel materials</td>
<td>189</td>
<td>4,030</td>
<td>179</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td></td>
<td></td>
<td>1,469</td>
<td>14</td>
<td>-5</td>
</tr>
<tr>
<td>North America</td>
<td>POSCAN</td>
<td>Sale coal</td>
<td>5</td>
<td>3,426</td>
<td>533</td>
<td>418</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td></td>
<td></td>
<td>25,520</td>
<td>213</td>
<td>12</td>
</tr>
<tr>
<td>South America</td>
<td>POSCO-Mexico</td>
<td>Manufacture and sale steel materials</td>
<td>496</td>
<td>6,303</td>
<td>190</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>POSCO-MIPFC</td>
<td>Processing and sale steel materials</td>
<td>501</td>
<td>5,967</td>
<td>161</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td></td>
<td></td>
<td>6,853</td>
<td>69</td>
<td>-33</td>
</tr>
<tr>
<td>Europe</td>
<td>POSCO-PWPC</td>
<td>Processing and sale steel materials</td>
<td>70</td>
<td>1,270</td>
<td>70</td>
<td>3</td>
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<tr>
<td></td>
<td>POSCO-ITPC</td>
<td>Processing and sale steel materials</td>
<td>47</td>
<td>1,134</td>
<td>137</td>
<td>30</td>
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<tr>
<td></td>
<td>Others</td>
<td></td>
<td></td>
<td>13,729</td>
<td>27</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td>12,055</td>
<td>2,063</td>
<td>251</td>
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</table>

Based on the consolidated financial statements

<table>
<thead>
<tr>
<th>Financial Reporting</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>Calculated Average (mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income before income tax expenses</td>
<td>20,250</td>
<td>94,161</td>
<td></td>
</tr>
<tr>
<td>Reported Taxes (nominal tax amount)</td>
<td>2,369</td>
<td>22,202</td>
<td></td>
</tr>
<tr>
<td>Reported Taxes Rate (%) (nominal tax rate)</td>
<td>11.7%</td>
<td>23.6%</td>
<td>17.6%</td>
</tr>
<tr>
<td>Cash Taxes Paid (real tax amount)</td>
<td>6,929</td>
<td>24,704</td>
<td></td>
</tr>
<tr>
<td>Cash Tax Rate (real tax rate)</td>
<td>34.2%</td>
<td>26.2%</td>
<td>30.2%</td>
</tr>
</tbody>
</table>
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 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.

Customer Satisfaction Surveys

<table>
<thead>
<tr>
<th>Year</th>
<th>Overall (domestic + overseas)</th>
<th>Domestic (N=190 for 2021)</th>
<th>Overseas (N=148 for 2021)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>80</td>
<td>74</td>
<td>89</td>
</tr>
<tr>
<td>2018</td>
<td>81</td>
<td>78</td>
<td>89</td>
</tr>
<tr>
<td>2019</td>
<td>82</td>
<td>76</td>
<td>90</td>
</tr>
<tr>
<td>2020</td>
<td>84</td>
<td>78</td>
<td>88</td>
</tr>
<tr>
<td>2021</td>
<td>85</td>
<td>74</td>
<td>82</td>
</tr>
</tbody>
</table>

* No survey in 2020 due to COVID-19

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.

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, zzn innovative method that enables us to manufacture complex parts using ultra-high-strength materials, and won the 2021 WSA Steele Award for technological innovation.
## Environment

### Air

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude steel production</td>
<td>thousand ton</td>
<td>37,735</td>
<td>38,007</td>
<td>35,935</td>
<td>38,263</td>
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</table>

### Dust emissions = TSP

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust emissions</td>
<td>thousand ton</td>
<td>3.2</td>
<td>3.5</td>
<td>0.3</td>
<td>0.2</td>
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</table>

### NOx emissions

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx emissions</td>
<td>thousand ton</td>
<td>39.2</td>
<td>41.0</td>
<td>40.7</td>
<td>35.8</td>
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</table>

### SOx emissions

<table>
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<th>Indicator</th>
<th>Unit</th>
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<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOx emissions</td>
<td>thousand ton</td>
<td>24.2</td>
<td>23.2</td>
<td>24.9</td>
<td>25.5</td>
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</table>

### Water resources

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total water intake</td>
<td>million m$^3$</td>
<td>139.5</td>
<td>142.0</td>
<td>136.4</td>
<td>135.8</td>
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</table>

### Water resource intensity (crude steel production based)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water resource intensity</td>
<td>million m$^3$</td>
<td>3.7</td>
<td>3.7</td>
<td>3.8</td>
<td>3.5</td>
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### Water resource consumption

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total water resource consumption</td>
<td>million m$^3$</td>
<td>68.8</td>
<td>68.7</td>
<td>64.5</td>
<td>61.0</td>
</tr>
</tbody>
</table>

### Water resource consumption

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total stormwater wastewater discharge</td>
<td>million m$^3$</td>
<td>70.6</td>
<td>73.3</td>
<td>71.9</td>
<td>74.9</td>
</tr>
</tbody>
</table>

### Water resource consumption

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Wastewater Recycled</td>
<td>million m$^3$</td>
<td>48.0</td>
<td>50.3</td>
<td>50.8</td>
<td>47.8</td>
</tr>
</tbody>
</table>

### Percentage of water withdrawn from regions with "high" or "Extremely High" baseline water stress

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of water withdrawn from regions with &quot;high&quot; or &quot;Extremely High&quot; baseline water stress</td>
<td>million m$^3$</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tbody>
</table>

### Percentage of water consumed in regions with "High" or "Extremely High" baseline water stress

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of water consumed in regions with &quot;High&quot; or &quot;Extremely High&quot; baseline water stress</td>
<td>million m$^3$</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

---

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.

---

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

3) Total amount of wastewater after final treatment at worksites and discharged into the sea.
Waste Unit 2018 2019 2020 2021
Total waste generated (1) 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 ton 10,728,377 10,625,781 10,810,459 11,243,762
Other uses such as fertilizer ton 259,446 260,406 277,349 210,938
Palletized slag ton 1,251,437 1,564,005 910,220 986,849
CO₂ reduction from slag re-use in the cement industry (2) tCO₂e 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 CO₂ reduction effect by assuming that 1 ton of Portland 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 (3) case 10 8 5 4
Amount of green purchases (4) 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 CO₂ 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 Consumption

<table>
<thead>
<tr>
<th>Year</th>
<th>GJ</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>378,728,730</td>
<td>382,845,859</td>
<td>374,874,610</td>
<td>380,052,799</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>41,384,234</td>
<td>45,885,941</td>
<td>52,692,024</td>
<td>41,702,222</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>170,094</td>
<td>183,292</td>
<td>179,288</td>
<td>185,423</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>10,866</td>
<td>12,732</td>
<td>8,347</td>
<td>4,587</td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>167</td>
<td>132</td>
<td>62</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>2023</td>
<td>328,617,817</td>
<td>330,463,327</td>
<td>317,514,546</td>
<td>327,845,269</td>
<td></td>
</tr>
</tbody>
</table>

### Energy Intensity (production based)

<table>
<thead>
<tr>
<th>Year</th>
<th>GJ/ t-crude steel</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>10.0</td>
<td>87</td>
<td>87</td>
<td>85</td>
<td>86</td>
</tr>
<tr>
<td>2019</td>
<td>10.1</td>
<td>12</td>
<td>12</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>2020</td>
<td>10.4</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2021</td>
<td>9.9</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### GHG Emissions (Scope 1 & 2)

<table>
<thead>
<tr>
<th>Year</th>
<th>tCO₂e</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>78,498,441</td>
<td>78,496,441</td>
<td>80,263,890</td>
<td>75,649,882</td>
<td>78,490,205</td>
</tr>
<tr>
<td>2019</td>
<td>77,391,479</td>
<td>79,447,924</td>
<td>75,069,656</td>
<td>77,101,095</td>
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</tr>
<tr>
<td>2020</td>
<td>1,106,964</td>
<td>815,966</td>
<td>580,226</td>
<td>1,389,117</td>
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</tr>
<tr>
<td>2021</td>
<td>18,903,000</td>
<td>13,139,000</td>
<td>11,951,000</td>
<td>12,872,905</td>
<td></td>
</tr>
</tbody>
</table>

### GHG Emissions (Scope 3)

<table>
<thead>
<tr>
<th>Year</th>
<th>tCO₂e</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>2,08</td>
<td>2,11</td>
<td>2,11</td>
<td>2.05</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>2,997</td>
<td>3,287</td>
<td>3,332</td>
<td>3,423</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>2,180</td>
<td>2,184</td>
<td>2,014</td>
<td>2,087</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>12,733</td>
<td>6,725</td>
<td>5,696</td>
<td>5,748</td>
<td></td>
</tr>
</tbody>
</table>

### GHG Intensity (production based)

<table>
<thead>
<tr>
<th>Year</th>
<th>tCO₂e/ton</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>2,997</td>
<td>3,287</td>
<td>3,332</td>
<td>3,423</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>2,180</td>
<td>2,184</td>
<td>2,014</td>
<td>2,087</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>12,733</td>
<td>6,725</td>
<td>5,696</td>
<td>5,748</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>18,903,000</td>
<td>13,139,000</td>
<td>11,951,000</td>
<td>12,872,905</td>
<td></td>
</tr>
</tbody>
</table>

### Energy Intensity (unit: GJ/t-crude steel)

<table>
<thead>
<tr>
<th>Year</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>10.0</td>
<td>10.1</td>
<td>10.4</td>
<td>9.9</td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### GHG Emissions (Scope 3)

<table>
<thead>
<tr>
<th>Year</th>
<th>(unit: thousand tCO₂e)</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>986</td>
<td>936</td>
<td>903</td>
<td>1,606</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>7</td>
<td>9</td>
<td>9</td>
<td>9</td>
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</tr>
<tr>
<td>2020</td>
<td>0.6</td>
<td>0.8</td>
<td>0.4</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>2,997</td>
<td>3,287</td>
<td>3,332</td>
<td>3,423</td>
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</tr>
</tbody>
</table>

### Other CO₂ Emissions

<table>
<thead>
<tr>
<th>Year</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>2,180,184</td>
<td>2,284,184</td>
<td>2,014,184</td>
<td>2,087,184</td>
</tr>
<tr>
<td>2019</td>
<td>12,733</td>
<td>6,725</td>
<td>5,696</td>
<td>5,748</td>
</tr>
<tr>
<td>2020</td>
<td>18,903,000</td>
<td>13,139,000</td>
<td>11,951,000</td>
<td>12,872,905</td>
</tr>
<tr>
<td>2021</td>
<td>18,904</td>
<td>13,138</td>
<td>11,951,001</td>
<td>12,873,004</td>
</tr>
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</table>

### GHG Emissions (Scope 3)

<table>
<thead>
<tr>
<th>Year</th>
<th>(unit: thousand tCO₂e)</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>986</td>
<td>936</td>
<td>903</td>
<td>1,606</td>
<td></td>
</tr>
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<td>7</td>
<td>9</td>
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<td>9</td>
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</tr>
<tr>
<td>2020</td>
<td>0.6</td>
<td>0.8</td>
<td>0.4</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>2,997</td>
<td>3,287</td>
<td>3,332</td>
<td>3,423</td>
<td></td>
</tr>
</tbody>
</table>

### Other CO₂ Emissions

<table>
<thead>
<tr>
<th>Year</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>2,180,184</td>
<td>2,284,184</td>
<td>2,014,184</td>
<td>2,087,184</td>
</tr>
<tr>
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<td>6,725</td>
<td>5,696</td>
<td>5,748</td>
</tr>
<tr>
<td>2020</td>
<td>18,903,000</td>
<td>13,139,000</td>
<td>11,951,000</td>
<td>12,872,905</td>
</tr>
<tr>
<td>2021</td>
<td>18,904</td>
<td>13,138</td>
<td>11,951,001</td>
<td>12,873,004</td>
</tr>
</tbody>
</table>
Society

<table>
<thead>
<tr>
<th>Safety</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injured employees (total)</td>
<td>persons</td>
<td>18</td>
<td>21</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>Injured employees (direct employees)</td>
<td>persons</td>
<td>6</td>
<td>13</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Injured employees (contractors)</td>
<td>persons</td>
<td>12</td>
<td>8</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Injury rate (total)</td>
<td>%</td>
<td>0.06</td>
<td>0.07</td>
<td>0.07</td>
<td>0.06</td>
</tr>
<tr>
<td>Injury rate (direct employees)</td>
<td>%</td>
<td>0.04</td>
<td>0.07</td>
<td>0.07</td>
<td>0.04</td>
</tr>
<tr>
<td>Injury rate (contractors)</td>
<td>%</td>
<td>0.09</td>
<td>0.06</td>
<td>0.06</td>
<td>0.08</td>
</tr>
<tr>
<td>Fatalities (total)</td>
<td>persons</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Fatalities (direct employees)</td>
<td>persons</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Fatalities (contractors)</td>
<td>persons</td>
<td>5</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Fatality rate (total)</td>
<td>%</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
<td>0.003</td>
</tr>
<tr>
<td>Fatality rate (direct employees)</td>
<td>%</td>
<td>0.00</td>
<td>0.12</td>
<td>0.12</td>
<td>0.00</td>
</tr>
<tr>
<td>Fatality rate (contractors)</td>
<td>%</td>
<td>0.04</td>
<td>0.00</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Percentage of ISO 45001 certified</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of certified worksites</td>
<td>count</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Percentage of certification target worksites</td>
<td>count</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

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.

3) The figures from the 2020 Corporate Citizenship Report differ due to a change in the statistical standards of LTIFR and TRIFR from the number of incidents to the number of injuries.
<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of employees</td>
<td>persons</td>
<td>17,221</td>
<td>17,574</td>
<td>17,937</td>
<td>18,252</td>
</tr>
<tr>
<td>Total number of executives</td>
<td>persons</td>
<td>71</td>
<td>71</td>
<td>74</td>
<td>79</td>
</tr>
<tr>
<td>Total number of employees</td>
<td>persons</td>
<td>17,150</td>
<td>17,503</td>
<td>17,863</td>
<td>18,173</td>
</tr>
<tr>
<td>Number of permanent employees</td>
<td>persons</td>
<td>16,899</td>
<td>17,299</td>
<td>17,665</td>
<td>17,599</td>
</tr>
<tr>
<td>Number of temporary employees</td>
<td>persons</td>
<td>251</td>
<td>204</td>
<td>198</td>
<td>114</td>
</tr>
<tr>
<td>Continuous years of service</td>
<td>years</td>
<td>19.9</td>
<td>19.6</td>
<td>19.1</td>
<td>19.0</td>
</tr>
<tr>
<td>Number of new hires</td>
<td>persons</td>
<td>886</td>
<td>1,026</td>
<td>701</td>
<td>1,192</td>
</tr>
<tr>
<td>Percentage of open positions filled by internal candidates</td>
<td>%</td>
<td>99.8</td>
<td>98.3</td>
<td>99.3</td>
<td>97.2</td>
</tr>
<tr>
<td>Recruitment cost</td>
<td>KRW</td>
<td>756,146,931</td>
<td>1,074,507,644</td>
<td>902,484,594</td>
<td>1,236,268,814</td>
</tr>
<tr>
<td>Voluntary resignation rate</td>
<td>%</td>
<td>1.67</td>
<td>1.69</td>
<td>1.26</td>
<td>2.04</td>
</tr>
<tr>
<td>Total turnover</td>
<td>persons</td>
<td>660</td>
<td>669</td>
<td>811</td>
<td>1,070</td>
</tr>
<tr>
<td>Number of retirees</td>
<td>persons</td>
<td>356</td>
<td>355</td>
<td>578</td>
<td>691</td>
</tr>
<tr>
<td>Manager turnover rate</td>
<td>%</td>
<td>1.21</td>
<td>1.37</td>
<td>1.37</td>
<td>2.21</td>
</tr>
<tr>
<td><strong>Employee satisfaction</strong></td>
<td>Points (100-point scale)</td>
<td>67</td>
<td>86</td>
<td>89</td>
<td>88</td>
</tr>
<tr>
<td>Number of strikes exceeding one week in duration</td>
<td>cases</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Training</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training expenses per employee</td>
<td>million KRW</td>
<td>1.46</td>
<td>1.63</td>
<td>1.21</td>
<td>1.48</td>
</tr>
<tr>
<td>Total employee training costs</td>
<td>million KRW</td>
<td>25,210</td>
<td>28,569</td>
<td>21,681</td>
<td>26,954</td>
</tr>
<tr>
<td>Training hours per employee</td>
<td>hours</td>
<td>94</td>
<td>89</td>
<td>78</td>
<td>73</td>
</tr>
<tr>
<td>Total training hours</td>
<td>hours</td>
<td>1,613,974</td>
<td>1,556,680</td>
<td>1,397,942</td>
<td>1,332,271</td>
</tr>
<tr>
<td><strong>Pension Subsidies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National pension (company contribution)</td>
<td>million KRW</td>
<td>41,465</td>
<td>43,230</td>
<td>44,937</td>
<td>45,921</td>
</tr>
<tr>
<td>Personal pension subsidies</td>
<td>million KRW</td>
<td>5,625</td>
<td>2,803</td>
<td>2,732</td>
<td>2,603</td>
</tr>
<tr>
<td>Number of personal pension beneficiaries</td>
<td>persons</td>
<td>6,759</td>
<td>4,354</td>
<td>4,197</td>
<td>4,074</td>
</tr>
</tbody>
</table>
### Diversity

<table>
<thead>
<tr>
<th>Percentage of female employees</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall percentage of women</td>
<td>%</td>
<td>4.9</td>
<td>5.0</td>
<td>5.2</td>
<td>5.8</td>
</tr>
<tr>
<td>Percentage of women in</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>managerial positions or higher</td>
<td>%</td>
<td>11.1</td>
<td>11.6</td>
<td>11.5</td>
<td>12.4</td>
</tr>
<tr>
<td>Percentage of females in</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>managerial positions (including directors)</td>
<td>%</td>
<td>1.3</td>
<td>2.6</td>
<td>3.7</td>
<td>2.5</td>
</tr>
<tr>
<td>Percentage of females in</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>junior managerial positions</td>
<td>%</td>
<td>23.3</td>
<td>23.4</td>
<td>22.7</td>
<td>23.5</td>
</tr>
<tr>
<td>Percentage of female employees in</td>
<td>%</td>
<td>15.4</td>
<td>18.1</td>
<td>19.3</td>
<td>22.6</td>
</tr>
<tr>
<td>managerial positions in</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>revenue-generating department</td>
<td>%</td>
<td>8.0</td>
<td>7.6</td>
<td>7.5</td>
<td>9.3</td>
</tr>
</tbody>
</table>

### Work-Life Balance

<table>
<thead>
<tr>
<th>Total number of employees who took childcare leave</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of employees who took childcare</td>
<td>persons</td>
<td>76</td>
<td>103</td>
<td>97</td>
<td>106</td>
</tr>
<tr>
<td>leave</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female employees who took childcare leave</td>
<td>persons</td>
<td>57</td>
<td>70</td>
<td>52</td>
<td>49</td>
</tr>
<tr>
<td>Male employees who took childcare leave</td>
<td>persons</td>
<td>19</td>
<td>33</td>
<td>45</td>
<td>57</td>
</tr>
<tr>
<td>Percentage of reinstatement after taking childcare leave</td>
<td>%</td>
<td>91.1</td>
<td>91.4</td>
<td>95.5</td>
<td>93.1</td>
</tr>
<tr>
<td>Reinstated employees after childcare leave</td>
<td>persons</td>
<td>94</td>
<td>106</td>
<td>127</td>
<td>121</td>
</tr>
<tr>
<td>Reinstated target employees after taking childcare leave</td>
<td>persons</td>
<td>103</td>
<td>116</td>
<td>133</td>
<td>130</td>
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</table>

### Social Contribution

<table>
<thead>
<tr>
<th>Social contribution expenses</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social contribution expenses</td>
<td>million KRW</td>
<td>48,650</td>
<td>48,841</td>
<td>34,089</td>
<td>49,455</td>
</tr>
<tr>
<td>Voluntary service hours per person</td>
<td>hours</td>
<td>27</td>
<td>27</td>
<td>17.9</td>
<td>18.0</td>
</tr>
<tr>
<td>Total voluntary service hours</td>
<td>hours</td>
<td>461,697</td>
<td>451,511</td>
<td>319,305</td>
<td>296,729</td>
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</table>

### Results of Customer Satisfaction Survey

<table>
<thead>
<tr>
<th>Total points (100-point scale)</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>points</td>
<td>82</td>
<td>84</td>
<td>-</td>
<td>85</td>
</tr>
<tr>
<td>Domestic</td>
<td>points</td>
<td>89</td>
<td>90</td>
<td>-</td>
<td>88</td>
</tr>
<tr>
<td>Overseas</td>
<td>points</td>
<td>76</td>
<td>78</td>
<td>-</td>
<td>82</td>
</tr>
</tbody>
</table>
Economic

### Business performance

<table>
<thead>
<tr>
<th>Unit</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales (KRW million)</td>
<td>30,373,511</td>
<td>26,509,920</td>
<td>39,920,201</td>
</tr>
<tr>
<td>Cost of sales (KRW million)</td>
<td>26,700,874</td>
<td>24,323,352</td>
<td>32,136,438</td>
</tr>
<tr>
<td>Gross profit (KRW million)</td>
<td>3,672,637</td>
<td>2,186,568</td>
<td>7,783,762</td>
</tr>
<tr>
<td>Selling and administrative expenses (KRW million)</td>
<td>1,086,278</td>
<td>1,051,372</td>
<td>1,134,162</td>
</tr>
<tr>
<td>Operating profit (KRW million)</td>
<td>2,586,359</td>
<td>1,135,197</td>
<td>6,649,600</td>
</tr>
<tr>
<td>Financial profit (loss) (KRW million)</td>
<td>360,440</td>
<td>410,483</td>
<td>768,526</td>
</tr>
<tr>
<td>Other non-operating income (KRW million)</td>
<td>1,115,550</td>
<td>527,799</td>
<td>434,426</td>
</tr>
<tr>
<td>Net income before tax (KRW million)</td>
<td>1,831,249</td>
<td>1,017,880</td>
<td>6,983,700</td>
</tr>
<tr>
<td>Corporate tax expenses (income) (KRW million)</td>
<td>655,536</td>
<td>52,017</td>
<td>1,802,472</td>
</tr>
<tr>
<td>Net income (KRW million)</td>
<td>1,175,712</td>
<td>965,863</td>
<td>5,181,227</td>
</tr>
</tbody>
</table>

### Financial position

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

### Cash flows

<table>
<thead>
<tr>
<th>Unit</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash flows from operating activities (KRW million)</td>
<td>3,600,955</td>
<td>5,157,670</td>
<td>4,780,338</td>
</tr>
<tr>
<td>Cash flows from investment activities (KRW million)</td>
<td>(1,092,722)</td>
<td>(4,339,430)</td>
<td>(1,313,276)</td>
</tr>
<tr>
<td>Cash flows from financing activities (KRW million)</td>
<td>1,075,756</td>
<td>75,484</td>
<td>(1,149,296)</td>
</tr>
<tr>
<td>Cash at the beginning of year (KRW million)</td>
<td>259,219</td>
<td>978,139</td>
<td>1,822,660</td>
</tr>
<tr>
<td>Cash at the end of year (KRW million)</td>
<td>978,139</td>
<td>1,822,660</td>
<td>2,042,274</td>
</tr>
</tbody>
</table>

* 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)

<table>
<thead>
<tr>
<th>Classification</th>
<th>Amount</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sculpture donation within Hwanho Park in Pohang City</td>
<td>Approx. KRW 11.7 billion</td>
<td>Board of Directors’ resolution dated November 5, 2021</td>
</tr>
<tr>
<td>Donation to help neighbors in need at end of year</td>
<td>Approx. KRW 10 billion (POSCO KRW 8 billion, Group companies KRW 2 billion)</td>
<td>Board of Directors’ resolution dated December 10, 2021</td>
</tr>
</tbody>
</table>

#### Association membership fee–related payment amount

(Unit: one thousand KRW)

<table>
<thead>
<tr>
<th>Category</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax-free organizations (non-profit entities, etc.)</td>
<td>6,693,557</td>
<td>6,955,811</td>
<td>6,407,845</td>
<td>7,895,448</td>
</tr>
<tr>
<td>Lobbyists/Lobby organizations</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Political campaigns/political groups</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Details of major association membership fee payments

(2021, Unit: one thousand KRW)

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Amount of Paid Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea Steel Association (KOSA)</td>
<td>2,564,000</td>
</tr>
<tr>
<td>World Steel Association (worldsteel)</td>
<td>910,000</td>
</tr>
<tr>
<td>Korea Employers Federation (KIF)</td>
<td>318,050</td>
</tr>
</tbody>
</table>

* 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

### Category: Material Issues 1
**Major issue:** Worksite safety risk management

**Category:** Occupational health & Safety

**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.

**Business effect:** 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.

### Category: Material Issues 2
**Major issue:** Climate change response

**Category:** Climate Strategy

**Reasons for selecting major issues:** 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.

**Business effect:** Risk

**Response method:** 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.

### Category: Material Issues 3
**Major issue:** Increase energy efficiency

**Category:** Climate Strategy

**Reasons for selecting major issues:** 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

**Response method:** 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**

**Executive KPI**
- Reflect on assessment of the head of the University Division
- Reflect on assessment of the head of the University & Technology Division

**Related report**
- POSCO Corporate Citizen Report p.71~75
- POSCO Corporate Citizen Report p.38~48
- POSCO Corporate Citizen Report p.42
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.

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.
### General Disclosures

#### Organization Profile

<table>
<thead>
<tr>
<th>Category</th>
<th>Index</th>
<th>Details</th>
<th>POSCO response</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRI 102-1</td>
<td>Name of the organization</td>
<td>p.5</td>
<td></td>
</tr>
<tr>
<td>GRI 102-2</td>
<td>Activities, brands, products, and services</td>
<td>p.5</td>
<td></td>
</tr>
<tr>
<td>GRI 102-3</td>
<td>Location of headquarters</td>
<td>p.5</td>
<td></td>
</tr>
<tr>
<td>GRI 102-4</td>
<td>Location of operations</td>
<td>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></td>
<td></td>
</tr>
<tr>
<td>GRI 102-5</td>
<td>Ownership and legal form</td>
<td>p.5</td>
<td></td>
</tr>
<tr>
<td>GRI 102-6</td>
<td>Markets served</td>
<td>p.5</td>
<td></td>
</tr>
<tr>
<td>GRI 102-7</td>
<td>Scale of the organization</td>
<td>p.102, p.104</td>
<td></td>
</tr>
<tr>
<td>GRI 102-8</td>
<td>Information on employees and other workers</td>
<td>p.102</td>
<td></td>
</tr>
<tr>
<td>GRI 102-9</td>
<td>Supply chain</td>
<td>p.63–69</td>
<td></td>
</tr>
<tr>
<td>GRI 102-10</td>
<td>Significant changes to the organization and its supply chain</td>
<td>p.2</td>
<td></td>
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<tr>
<td>GRI 102-12</td>
<td>External initiatives</td>
<td>p.6, p.89</td>
<td></td>
</tr>
<tr>
<td>GRI 102-13</td>
<td>Membership of associations</td>
<td>p.89</td>
<td></td>
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</tbody>
</table>

#### Strategy

<table>
<thead>
<tr>
<th>Category</th>
<th>Index</th>
<th>Details</th>
<th>POSCO response</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRI 102-14</td>
<td>Statement from senior decision-maker</td>
<td>p.9</td>
<td></td>
</tr>
<tr>
<td>GRI 102-15</td>
<td>Key impacts, risks, and opportunities</td>
<td>p.32–33, p.86–87</td>
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</tr>
</tbody>
</table>

#### Ethics and Integrity

<table>
<thead>
<tr>
<th>Category</th>
<th>Index</th>
<th>Details</th>
<th>POSCO response</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRI 102-16</td>
<td>Values, principles, standards, and norms of behavior</td>
<td>p.3</td>
<td></td>
</tr>
<tr>
<td>GRI 102-17</td>
<td>Mechanisms for advice and concerns about ethics</td>
<td>p.16</td>
<td></td>
</tr>
</tbody>
</table>

#### Governance

<table>
<thead>
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### Greenhouse Gas Emissions

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<td>EM-IS-110a.1</td>
<td>metric tons (t), percentage (%)</td>
<td>(1) Gross global Scope 1 emissions</td>
<td>77,101,095</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2) Percentage covered under emissions-limiting regulations</td>
<td>100%</td>
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</table>

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.

### 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. [Direct Link](#)

### Air

| EM-IS-120a.1 | metric tons (t) | (1) NOx (excluding N₂O) | 35,810 |
| | | (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. |

### Energy Management

| EM-IS-130a.2 | Quantitative gigajoules (GJ), percentage (%) | (1) Total fuel consumed | 369,305,805 |
| | | (2) Percentage coal | N/A |
| | | (3) Percentage natural gas | 31.1% |
| | | (4) Percentage renewable | N/A |

### Water Management

| EM-IS-140a.1 | Quantitative thousand cubic meters (m³), percentage (%) | Total fresh water withdrawn | 135,800 |
| | | Percentage recycled | 35.2% |
EM-IS-140a.1 Quantitative

- **thousand cubic meters (m³), percentage (%)**
- **Percentage in regions with High or Extremely High Baseline Water Stress**: 0
- **Percentage in regions with Extremely High (>80%) 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.

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.

EM-IS-150a.1 Quantitative

- **metric tons (t), percentage (%)**
- **Total amount of waste generated**: 23,806,614
- **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%.

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

POSCO has managed its generation and treatment of waste through Allbaro, the Korean government's official waste disposal system.

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.

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**: Production volume: 36,907,365, Percentage: 96.5%
  2. **electric arc furnace processes**: 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.

EM-IS-000.D Quantitative

- **metric tons (t)**
- **Total coke production**: This metric is not applicable and is not reported, as POSCO does not own any mines.
## SASB (Global work sites)

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<td>EM-IS-110a.1</td>
<td>Greenhouse Gas Emissions</td>
<td>metric tons (t), percentage (%)</td>
<td>(1) Gross global Scope 1 emissions</td>
<td>(1) 83,675,676</td>
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<td></td>
<td></td>
<td></td>
<td>(2) Percentage covered under emissions-limiting regulations</td>
<td>(2) 92.1%</td>
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<td></td>
<td></td>
<td></td>
<td>One country (South Korea)</td>
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<td>EM-IS-110a.2</td>
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<td>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</td>
<td>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. [Direct Link]</td>
</tr>
<tr>
<td>EM-IS-120a.1</td>
<td>Air</td>
<td>tons (t)</td>
<td>(1) NOx emissions (excluding N2O)</td>
<td>35,936</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(2) SOx emissions</td>
<td>25,502</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(3) Particulate matter emissions</td>
<td>341</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(4) CO emissions</td>
<td>N/A</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(5) Manganese (MnO) emissions</td>
<td>N/A</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(6) Lead (Pb) emissions</td>
<td>N/A</td>
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<td></td>
<td></td>
<td></td>
<td>(7) Volatile organic compounds (VOCs) emissions</td>
<td>N/A</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(8) Polycyclic aromatic hydrocarbons (PAHs) emissions</td>
<td>N/A</td>
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<td>EM-IS-130a.1</td>
<td>Energy Management</td>
<td>Gigajoules (GJ), percentage (%)</td>
<td>(1) Total energy consumed</td>
<td>414,385,404</td>
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<td></td>
<td>(2) Percentage of grid electricity</td>
<td>4.2%</td>
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<td></td>
<td>(3) Percentage of renewable source electricity</td>
<td>The renewable energy usage is 6,928 GJ.</td>
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<td>EM-IS-130a.2</td>
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<td>Gigajoules (GJ), percentage (%)</td>
<td>(1) Total fuel consumed</td>
<td>397,270,042</td>
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<td></td>
<td>(2) Percentage coal</td>
<td>N/A POSCO uses coal as a reducing agent (raw material).</td>
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<td></td>
<td></td>
<td>(3) Percentage natural gas</td>
<td>11.3%</td>
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<td>(4) Percentage renewable</td>
<td>N/A</td>
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<td>EM-IS-140a.1</td>
<td>Water</td>
<td>thousand cubic meters (m³), percentage (%)</td>
<td>total fresh water withdrawn</td>
<td>350,193</td>
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<td></td>
<td></td>
<td>Percentage recycled</td>
<td>32.70%</td>
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EM-IS-140a.1 Quantitative thousand cubic meters ($m^3$), percentage (%)

POSCO's Response

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.

EM-IS-150a.1 Quantitative metric tons (t), percentage (%)

Total amount of waste generated 24,109,815
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 hazardous

POSCO manages its generation and treatment of waste through Allbaro, the Korean government’s official waste disposal system.

Percentage recycled 98.1%

EM-IS-320a.1 Quantitative incidence rates 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

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.

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 (43,964,419 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

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<td>Governance</td>
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<td>Frequency by which the board is informed about climate-related issues</td>
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<td>Whether the board considers climate-related issues when making decisions</td>
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<td>Governance</td>
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<td>Top decision-making organization related to climate-related issues</td>
<td>p.13, p.40</td>
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<td>Structure of decision-making organization related to climate-related issues</td>
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<td>Processes by which management is informed about climate-related issues</td>
<td>p.13, p.40</td>
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<td>T0009</td>
<td>Qualitative</td>
<td>How management monitors climate-related issues</td>
<td>p.39, p.40</td>
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<td>Strategy</td>
<td>T0010</td>
<td>Qualitative</td>
<td>Describe the climate-related issues the organization has identified over the short, medium, and long term (including how to divide terms)</td>
<td>p.38</td>
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<td>Strategy</td>
<td>T0013</td>
<td>Qualitative</td>
<td>Climate-related issues impact on the organization’s business and strategy (products and services, supply chains, adaptation and mitigation activities, R&amp;D investment, operation)</td>
<td>p.39-40, p.42-50</td>
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<td>Explanation on climate-related scenario (when the scenario is linked to the organization’s strategy and financial plan)</td>
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<td>The organization’s strategy that can be affected by climate-related risks and opportunities</td>
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<td>Quantitative</td>
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<td>Quantitative</td>
<td>Metrics and targets on major climate-related risk</td>
<td>p.38</td>
</tr>
</tbody>
</table>
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 tCO₂-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’.

| Verification Statement on 2021 Greenhouse Gas Emisson Report | |
| Verification Target | Verification Scope | Verification Criteria | Verification Procedure | Verification Limitation |

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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 ISO14064-3 (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 (Scope3) 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:

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

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:

May 27th, 2022
Korean Foundation for Quality
President & CEO Ji Young Song

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 summarised 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 controls 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 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 loss in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including 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 POSCO 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.

Seoul, Korea
Hoonsoo Youn, Chief Executive Officer
8 July 2022

Sustainable development
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.
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.
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 and CCUS 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 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: CO2 Capture, Utilization & Storage, CO2 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.

Net-zero Commitment

POSCO’s Net-zero Commitment by 2050

The UN IPCC(Intergovernmental Panel on Climate Change) 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

<table>
<thead>
<tr>
<th>2017~2019</th>
<th>2020</th>
<th>2040</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>▼ 20%</td>
<td>▼ 10% reduction via avoided emissions</td>
<td>▼ 50%</td>
<td></td>
</tr>
</tbody>
</table>
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.

POSCO 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.
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)\(^4\) products produced by POSCO.

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\(^5\) 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.

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

\(^5\) IUCN: The International Union for Conservation of Nature and Natural Resources.
**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 2 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. POSCO strives 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**

**Overview**

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.
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 identify hazards and risk factors in advance and seek continuous improvement.

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, and maintain a systematic and continuous safety and health management system.

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

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/expressions/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.

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.
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.
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]

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.

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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 employee’s 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.
Employment for People with Disabilities

POSCO and its Group companies are making various efforts to expand employment opportunities for people with disabilities, by granting additional points to applicants with disabilities and hiring athletes with disabilities and supporting their independence and trainings. Based on a report from the Korea Employment Agency for the Persons with Disabilities from 2021, POSCO’s employment rate for people with disabilities is 3.3%. In addition, we are operating a subsidiary-type standard workplace for people with disabilities called POSCO Humans to provide a cleaning service, a call center, and administrative support to our Group companies, and to consider various new projects in which people with disabilities may thrive. POSCO Group constantly strives to create a friendly hiring environments and workplace environments in which all people with disabilities are respected without discrimination.

Family-friendly Business

POSCO is making various efforts to create a welcoming workplace for women. In 2020, we were the first Korean company to introduce a work-from-home program so that our employees wouldn’t have to take a career break while raising young children. This program allowed the employees who have children of 8 years old (or in second grade in elementary school) or younger to care for their children while working from home. In 2020, we introduced a Work-from-home During Pregnancy program to support healthy childbirth and expanded its coverage in 2021 to include female employees undergoing infertility treatment. Meanwhile, in 2020, we established two co-dependent daycare centers in Pohang and Gwangyang for the children of POSCO Group and its partners’ employees, increasing the number of workplace daycare centers that we operate to 6 in 3 regions including Seoul, in order to provide high-quality childcare services to our employees. Furthermore, we authorize up to two years of parental leave, which is longer than the standard stipulated by the Labor Standards Act, and newly created a family care leave to be used when a family member needs care due to an illness, accident, aging, etc., thereby providing practical support to our employees’ work-family life balance.

Prohibition of Discrimination and Harassment

POSCO does not discriminate based on race, nationality, sex, age, educational background, religion, region of origin, disability, marital status, or gender identity in its working conditions, such as hiring, promotion, education, compensation, and benefits. Also, we endeavor to eradicate discrimination and to disseminate a culture that values diversity. POSCO guarantees the conditions of employment to ensure that its employees can enjoy a life with human dignity, such as decent work hours, and offers adequate compensation and educational opportunities. This decent workplace environment is sustained by building a culture that respects cultural diversity.

POSCO prohibits all acts that may cause sexual humiliation such as sexual harassment and violence in the workplace and forbids any abuses that inflict physical or mental pain by using one’s superior position or relationship in the workplace. To respond to acts that inflict physical or mental pain on other workers beyond the proper scope of work-related duties or that degrade the workplace environment, such as violent behavior and abusive language, as well as sexual harassments committed by employers or workers using their superior position or relationship, POSCO is building a system for reporting workplace harassment and sexual harassment.

Diversity and Expertise of the Board

POSCO’s non-executive directors, who have vast experience and expertise, are selected from various areas such as industry, finance, academia, law, accounting, and public services with the goal of improving the decision-making process without partiality towards certain area of practice.

Information Security Policy

Information Security Principles

At POSCO, we are striving to secure and maintain our global competitiveness by complying with the international standards for information security and relevant domestic and foreign laws, and to protect information assets such as core technologies and HR, which are the source of our competitive edge. In that regard, we are preparing fair and reasonable policies and standards for information security, and all our employees are striving to maintain the highest level of protection as they attain execution power by making information security a part of their daily life. To this end, we are operating the following five strategic directions to secure execution:

- POSCO recognizes information security as one of its management activities and establishes an information security management system to respond to changes in the business environment in a timely manner.
- POSCO employees recognize that they are the main agents for information security, and that they can improve the level of security by continuously participating in education and training sessions to nurture information security experts.
- POSCO employees make information security part of their daily routine and establish related activities as a corporate culture.

POSCO employees make information security part of their daily routine and establish related activities as a corporate culture.
• 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.

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).

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 uninstructed 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.

Data protection
Suppliers endeavor to protect the personal information of all stakeholders (including suppliers, customers, consumers, and employees) in their business.

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.

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)³, 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...
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) (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
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.
Shareholder Responsibilities

- Shareholders shall make every effort to exercise their voting rights proactively for the development of the Company, acknowledging the fact that exercising such rights can affect the management of the Company.

BOD

Functions of the BOD

- The BOD shall have a comprehensive authority over the management of the Company within the scope provided by the relevant laws and regulations, and shall make key managerial decisions and supervise the management activities in the best interests of the Company and its shareholders.

- The BOD shall perform the following functions:
  ◦ Setting of business goals and core business strategies
  ◦ Determining the appointment and/or dismissal, supervision, assessment, and compensation policy of the management
  ◦ Periodic monitoring of the management’s accomplishments
  ◦ Approving significant investment projects, large-scale borrowing of funds, annual business plans and budgets
  ◦ Overseeing other matters prescribed by laws and regulations, articles of association, and operating regulations of the BOD

BOD Composition and Appointment of Directors

- The Company shall have three or more directors and a limited number of non-executive directors.
- The chairperson of the BOD shall be the CEO and/or representative director.
- By resolution of the BOD, the Company shall appoint the CEO and representative directors among the executive directors. The positions of president, vice president, senior managing director, or managing director may be granted to a director by the resolution of the BOD upon the recommendation of the CEO.

Qualifications of Directors

- Directors shall possess an exemplary sense of ethics, a sense of professionalism and honesty, and the ability to enhance the long-term value of all shareholders and represent the interests of all stakeholders in a balanced manner.

- Executive directors, as high-level managers of the Company, shall have abundant experience and expertise relating to the Company’s business, and shall be capable of making managerial decisions in a rational and entrepreneurial manner.
- Non-executive directors shall have abundant expertise or experience in a relevant field of industry, finance, academia, law, accounting, or public sector, shall have no material relationship with the Company and shall be able to make decisions independently from the management of the Company and selected shareholders.

Roles of Non-executive Directors

- Through the BOD activities, non-executive directors shall participate in the Company’s key decision-making process. As members of the BOD, non-executive directors shall supervise and support the management through constructive advice.
- A non-executive director may request the provision of information necessary to perform their duties. If necessary, the non-executive director may receive consultation from third party experts through proper procedures, for which POSCO will cover any reasonable expenses.
- Non-executive directors shall devote sufficient time for purposes of performing their duties and shall review all related materials before attending a BOD meeting.

Responsibilities of Directors

- Directors shall do their utmost to perform their duties of care and duties of loyalty for the best interests of the Company and its shareholders. Directors shall not leak or use any information obtained in the course of performing these duties for their own benefit or the benefit of any third parties.
- Directors, as members of the Company, shall abide by POSCO’s Code of Ethics and Code of Ethics of Non-executive Directors. The BOD shall oversee compliance with the code of conduct set forth in the Code of Ethics.
- If a director violates the law or the articles of incorporation, or neglects his/her duties, he/she is liable for damages to the Company. In case there is any malice or gross negligence, he/she is also liable for damages to a third party. However, managerial decisions of a director that are based on good faith procedures and rational and reasonable judgement shall be respected.
- In order to secure the effectiveness of holding directors accountable and to recruit competent personnel as directors, the Company may subscribe to liability insurance on behalf of directors.
- A director must resign if a conflict of interest between POSCO and the director is not resolved. The director shall not engage in any discussions or decision-making processes that may affect his/her personal or professional interests.
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 conduct.
• 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 solicitation: 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 fulfill 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.
Penalties for Violation of the Code of Ethics

Employees who violate the Code of Ethics may be subject to certain penalties, including dismissal according to the related regulations. Notably, a zero-tolerance policy is applied to unethical conducts, such as accepting bribes, embezzlement, fabrication of information, and violation of sexual ethics.

Conducts subject to punishment
- Violating the Code of Ethics or demands that others do so
- Failing to immediately report a violation of the Code of Ethics that he/she is aware of or concerned about
- Failing to cooperate with the investigation of the Corporate Audit Office regarding the matters that may potentially be in violation of the Code of Ethics
- Taking a retaliatory action against other employees who report an ethical management issue

Code of Ethics Practice Guidelines

Practice of Ethics and Compliance with Law

As a global enterprise, we will nurture an ethical corporate culture by performing management activities that adhere to our basic principles and comply with laws and ethics. Employees and third parties supporting or acting on behalf of POSCO must comply with the FCPA and other applicable anti-corruption laws.

• Money and valuables refer to money (e.g., cash, gift certificates, and rights of use) or things that can bring economic benefits.
• Apart from the exceptions, offering, requesting, or receiving money or valuables from stakeholders is prohibited for any reason whatsoever.
• During overseas business trips, must not ask for or receive gifts from the overseas affiliates.
• If money or valuables are received unknowingly or involuntarily, such money and valuables should be returned, or if they cannot be returned, must report to the Corporate Audit Office.

Hospitality
- Hospitality refers to a variety of activities carried out for the purpose of business networking and business meetings including meals, drinks, golf, shows, and games.
• Must not be involved in hospitality valued in excess of KRW 100,000 per person with stakeholders. If it is necessary to engage in hospitality due to the nature of the business, must obtain approval from the head of the department in advance. In case of unavoidably engaging in a form of hospitality valued in excess of KRW 100,000 per person, must report the incident to the Corporate Audit Office. However, food and beverages valued under KRW 30,000 per person is permitted to be offered to persons who are subject to the improper Solicitation and Graft Act (Anti-Graft Act), including public officials, journalists and faculty members, when there is a lawful purpose of facilitating the performance of work-related duties or social relationships, or as a matter of courtesy, within the scope permitted by the Anti-Graft Act.
• Any sort of hospitality at an entertainment bar with hosts/hostesses is prohibited, regardless of the monetary amount.

Convenience
- Convenience refers to providing or receiving benefits such as transportation, accommodation, sightseeing, and support for an event.
• Provision or receipt of conveniences exceeding a customary level, whether in the form of transportation or accommodation, is prohibited, except for conveniences provided equally to all participants in an event.
• In the event that hospitality exceeding the customary level was unavoidably received or provided, must report to the Corporate Audit Office.

Congratulatory or condolatory money
• Not inform stakeholders of their own or their co-worker’s congratulatory or condolatory events. Notification through a third party will be deemed as an act of notification by the individual himself/herself.
• Information on congratulatory or condolatory events should be provided through the congratulatory/condolatory bulletin board, and the use of work e-mail or sending out a written notice (e.g., a wedding invitation or an obituary notice) for such purpose is prohibited. The permissible scope of congratulatory or condolatory events concerning employees subject to notification is limited to the parents, grandparents and children of the employee or his/her spouse.
• The advised amount of congratulatory or condolatory money among employees is KRW 50,000, which is a generally accepted amount based on social customs.
• Congratulatory or condolatory monetary gifts for outside stakeholders should be under KRW 50,000, while wreaths and condolence flowers worth of up to KRW 100,000 are allowed. However, those who are subject to the Anti-Graft Act must be treated in accordance therewith.
Upon the request of the Corporate Audit Office, must submit a record relating to the congratulatory or condolatory money received from and returned to the stakeholder.

Solicitations/recommendations
- Solicitations/recommendations regarding the following through in-house acquaintances or outsiders is prohibited and registration on the Clean POSCO System is required upon receiving requests/recommendations of the following:
  - Requests for special favors in equipment/material purchases and various contracts
  - Requests for preferential treatment and special favors in various personnel affairs such as employment, promotions, rewards and punishment, and transfer of positions
  - Requests for preferential treatment such as excessive conveniences and favors beyond the conventional procedures
  - Requests for negligence in management and supervision, such as an inspection
- Unlawful solicitation to those who are subject to the Anti-Graft Act in relation to their work-related duties is prohibited, directly or through a third party.

Pecuniary transactions
- Not engage in pecuniary transactions with a stakeholder, such as lending or borrowing money, providing a loan guarantee, or leasing real estate.
- In the event of unavoidably entering into a pecuniary transaction with a stakeholder, must report to the Corporate Audit Office.

Sponsorship for events
- Any support or donation should not be received from a stakeholder, whether in the form of money or other valuables, in relation to any event organized by the department or as Company’s extracurricular activities.
- Any form of convenience received from a stakeholder such as transportation, venue, or services in relation to such event is deemed a receipt of money or other valuables for the event.
- In the event of unavoidably receiving any sponsorship for an event from a stakeholder, must report to the Corporate Audit Office.

Inappropriate use of budget funds
- Budget funds (such as meeting expenses and business promotion expenses) should not be used for personal purposes.
- In principle, company expenditures should be paid by a corporate credit card in accordance with the purpose of the budget and the standards prescribed by law.

Protection of information and assets
- Strictly protect the confidential or important information of the Company.
- Promptly deliver important information that comes to one’s attention to the person who needs to know such information for the performance of his/her job.
- Not distort or disseminate false information.
- Refrain from using the Company’s supplies and facilities for purposes not directly related to work.
- Not use, leak, or disclose information in any illegal way other than for its intended purpose or use.
- If information has been acquired or stored without authority, dispose it without delay in accordance with the standards set by relevant laws and the Company regulations.

Fair trade
- Comply with relevant international and local antitrust laws and not engage in unfair trade practices, such as collusion with competitors with respect to production, prices, bidding or market segmentation.
- Not demand any form of compensation or use one’s dominant position to make an inappropriate request to customers or business partners.
- Respect the rights and property of others including their intellectual property rights, and try not to enter into transactions or make profits by infringing upon such rights.
- Ensure that any corporate information, including competitor’s information, is obtained and utilized only in a lawful manner.

Preventing conflicts of interest
- A conflict of interest refers to a case in which the ability of employees to perform their duties fairly is impeded or is likely to be hindered due to personal interests involved with the employees of business partners.
- Conflicts of interest should be prevented by thoroughly eliminating inappropriate requests by employees of business partners who have personal interests, including retired employees.
- Not attend a social gathering with any retired employee that is not approved by the Company.
- May join a retired employee social gathering after retirement; prior to this, in the event of attending any retired employee social gatherings, report to the supervisor within the department and withdraw from such social gathering.
- Not engage in unfair business practices, such as signing unfair private contracts, purchasing at a high
price, funneling a business, and leaking trade-related information in advance, by giving a preferential treatment to a certain individual or corporation for the sake of personal interests.

- Prevent conflicts of interest with POSCO and POSCO Group companies, even after one’s retirement.

**Employee’s Work-life Balance**

We strive to pursue a personal growth of our employees and a corporate development by maintaining work and life balance, and to create a happy workplace by establishing a corporate culture of mutual respect.

**Pursuit of work-life balance**

- Try to improve the quality of life of employees by providing benefits that are helpful for maintaining a stable life.
- Support employees in achieving their individual visions, and allow them flexibility in terms of the time, location, and method by which they perform their work.

**Provision of education and career growth opportunities**

- Organize a work environment and systems where creativity can be enhanced.
- Support employees’ education and participation in development programs so that they can fully develop their abilities and qualities and become qualified individuals with the best capabilities.

**Fair assessment and compensation**

- We will conduct an impartial and systematic assessment for employees based on their individual competency and performance and provide appropriate compensation therefor.

**Creation of a healthy organizational culture**

- Employees aim to create an open corporate culture through open communications.
- Employees remove barriers between departments and pursue a cooperative atmosphere.

**Guidelines for Creating Customer Value and Building Trust**

Recognizing that the trust and success of our customers are the future for us, we strive to always respect our customers’ opinions, understand them, and create value that will be of assistance to their growth.

**Realization of customer satisfaction**

- Work in a customer-oriented way, ensuring that the voice of customers is heard and respected.
- Proactively accommodate customers’ legitimate needs and reasonable suggestions.

**Creation of customer value**

- Satisfy customers’ needs by providing the best products through continuous technology development.
- Employees will try to understand the domestic and overseas market status and develop a service-oriented mindset that respects customers’ culture and practices.

**Securing customer trust**

- Pay due attention to the safety and health issues of customers in our management activities, and not provide any product or service that might threaten the safety and health of the customers.
- Protect customer information and comply with relevant data protection laws and regulations.
- Provide accurate information to customers on a timely basis.

**Duties of Good Faith and Fair Dealings Toward Investors**

We strive to maximize value for investors by realizing legitimate profits through transparent decision-making and effective management activities.

**Pursuit of increased shareholder value**

- Make profits through transparent decision-making and efficient management activities and increase corporate value and shareholder value at the same time.

**Impartial provision of investment information**

- Not provide information that may affect the investment decisions only to certain investors, nor provide any partial information.
- Neither directly trade stocks or securities, nor encourage others to trade using insider information acquired while working for the Company.

**Transparent calculation and provision of financial information.**

- Process and calculate all financial information based on accurate transaction records, implementing the appropriate processes and controls.
- Prepare financial reports in accordance with generally accepted accounting standards.
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.

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.
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 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.
Release of information and incorporation in the decision-making process
The current status of community development and communication progress with local communities are disclosed internally and externally through Corporate Citizenship Reports, websites, press releases, and local briefing sessions, thereby enhancing the trust and credibility of stakeholders.

Human Rights Protection and Job Policy in the Local Community
In our business activities and relationships, POSCO’s controls its management activities and business relations so that human rights such as the environment, safety and health, and freedom of residence of local residents are not violated. POSCO also collects opinions in accordance with relevant laws and regulations, and respects the autonomy and traditional values of local communities. In addition, by creating and maintaining stable jobs and diligently paying taxes in compliance with the Code of Ethics, POSCO fulfills its responsibilities and obligations in the local community. POSCO is providing stable jobs in Pohang and Gwangyang, where our major worksites are located, and operates employment and startup support programs for the youth. With the goal of protecting and respecting human rights, we provide equal employment opportunities for anyone who possesses job qualifications and competence.

Anti-corruption Compliance Guidelines

Chapter I. General Provisions

Article 1. Objective
POSCO seeks to observe the highest legal and ethical standards in conducting business in all areas around the world. The objective of these Anti-corruption Compliance Guidelines is to ensure that global anti-corruption laws and standards are being complied with by not only POSCO employees, but also POSCO Group companies, agents, and counterparties.

Chapter II. Procedures

Article 2. Global Anti-Corruption Standards
POSCO employees shall observe legal and ethical standards regarding global anti-corruption set out in the Foreign Corrupt Practices Act of 1977 (FCPA) (United States), the Bribery Act of 2010 (United Kingdom), the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions (OECD Convention) and the UN Global Compact. The FCPA prohibits any company, US or non-US, listed on a national securities exchange in the United States from giving bribes to any non-US foreign government officials and requires the bookkeeping of accurate records and implementation of adequate internal controls. Considering that POSCO is listed on the New York Stock Exchange (NYSE), it must abide by the FCPA.

The Bribery Act prohibits UK companies and any non-UK entities doing business in the UK from giving bribes to any non-UK, foreign civil servants and business partners outside the UK. The OECD Anti-Bribery Convention is the first international convention to criminalize bribery to foreign government officials. In Korea, the Act on Combating Bribery of Foreign Public Officials in International Business Transactions was enacted and implemented to execute the OECD Convention. The UN Global Compact regulates all forms of corruption of corporate entities.

POSCO employees not only shall observe the global anti-corruption laws and standards but also the local anti-corruption laws and regulations of the countries where they do business. For instance, in the Korea, some of the local laws and regulations include the Criminal Code, the Act on the Aggravated Punishment of Specific Crimes, the Act on the Aggravated Punishment of Specific Economic Crimes, and Anti-Graft Act, among others. An act committed as a social or business customary practice, if in violation of the global anti-corruption laws and standards or local laws, will not be exempt. On the other hand, if there is a conflict or inconsistency between the global anti-corruption laws, standards, local laws and the Anti-Corruption Compliance Guidelines, the strictest standards shall prevail.

Article 3. Prohibition and Restrictions on Hospitality and Convenience

General principles
No POSCO employees shall provide or receive anything of value as convenience to or from any stakeholder, including foreign or local government officials, counterparts, with the intention of wrongdoing to obtain or retain any business benefits. In this regard, ‘anything of value’ shall include, but is not limited to:
- Securities, real estate, meals, gifts, golf
• 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.