POSCO CORPORATE CITIZENSHIP REPORT 2020

Economic, Environmental, Social, and Governance Performance
POSCO’s 2020 Corporate Citizenship Report highlights the company’s many achievements in key areas of business, society, and people. POSCO has managed to excel in these areas largely thanks to the implementation of our Corporate Citizenship management philosophy, which focuses on sustainable management, alongside the establishment of the Environmental, Social and Governance (ESG) Factbook. This report also highlights the major issues the company is facing and how our response strategy, which includes feedback from our domestic and international steel industry partners and stakeholders, has helped resolve them. As always, POSCO would like to be completely transparent to our supporters about our management tactics as well as our long-term goals and strategies.

Reporting Principles
This report was prepared in accordance with the Global Reporting Initiative (GRI) Standard, which is utilized by organizations worldwide in sustainability reporting. As a member of the UN Global Compact, POSCO will detail all actions taken to achieve the 10 UN Global Compact Principles in sectors such as human rights, labor, environmental protection, anti-corruption, and other Sustainable Development Goals (SDGs). In addition, 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
Most of the information presented in this report covers POSCO’s actions and achievements from January 1, 2020 through December 31, 2020. However, there is also some more recent data from the period between January 1, 2021 through March 31, 2021, as well as the four-year quantitative performance trend data between the years 2017 and 2020.

Reporting Scope
Data featured in this report is based on POSCO’s performance across all domestic worksites including Pohang Steelworks, Gwangyang Steelworks, and both the Pohang head office and the Seoul office. Business performance summaries are the consolidated financial achievements of the four aforementioned worksites. Some information presented also covers POSCO Group companies, overseas subsidiaries, and other partners. While POSCO’s financial information is limited, as it is based on non-consolidated K-IFRS financial statements, all data presented on a consolidated basis is annotated as best as possible to assure our stakeholders have the best possible understanding.

Cover Story
With the aim of supporting a green future, POSCO has recently announced a commitment to carbon neutrality by 2050 as a Corporate Citizenship.

Report Assurance
To assure the credibility of all information contained in this report, POSCO 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. In addition, since 2003, POSCO has been continuously assessed by the S&P Dow Jones Sustainability World Index and participates in the Carbon Disclosure Project (CDP) to assure our improving sustainability performance.

Past Reports (based on year of publication)
2004–2013  Sustainability Report
2014–2018  POSCO Report
2019–NOW  Corporate Citizenship Report

Report Distribution and Feedback
This report can be downloaded from the official POSCO website. Stakeholder’s views and opinions on this publication can be inquired about from the following:

Department in Charge  ESG Group, Corporate Citizenship Office
Telephone +82 2 3457 0114
E-mail sustainability@posco.com
Website www.posco.com
Corporate Citizenship Website corporatecitizenship.posco.com
POSCO CHARTER OF CORPORATE CITIZENSHIP

Companies achieve lasting growth and sustainability by pursuing harmony within the society where businesses operate. As a member of the social community, companies who have benefitted 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 the 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

July 25, 2019 POSCO

As we open a new chapter in the history of POSCO in pursuit of mutually-beneficial growth and the value of consideration, co-existence and co-prosperity, we lay the foundation to become a centennial company in line with our ‘Corporate Citizenship’ management philosophy.

Jeong-Woo Choi
Chief Executive Officer
POSCO CORPORATE CITIZENSHIP REPORT 2020

TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Overview</th>
<th>Business</th>
<th>Society</th>
<th>People</th>
<th>Governance</th>
<th>ESG Factbook</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 CEO Message</td>
<td>36 Climate Change Response</td>
<td>55 Sustainable Supply Chain</td>
<td>68 Workplace Safety</td>
<td>78 Transparent Governance</td>
<td>ESG DATA</td>
</tr>
<tr>
<td>20 5 Major Corporate Citizenship Brands</td>
<td>43 Eco-friendly Steelworks</td>
<td>61 Co-Prosperity with Stakeholders</td>
<td>72 Corporate Trust and Creativity</td>
<td>82 Exemplary Business Practices</td>
<td>SASB</td>
</tr>
<tr>
<td>26 ESG Materility Analysis</td>
<td>49 Business Competitiveness</td>
<td></td>
<td></td>
<td>90 Economic Contribution</td>
<td>Written Verification Opinion</td>
</tr>
</tbody>
</table>
POSCO was established on April 1, 1968 as a general steel company to produce hot rolled, cold rolled, and stainless steel. It was Korea’s first integrated steel mill. Since being listed on the Korea Stock Exchange on June 10, 1988, POSCO has become an internationally acknowledged company with an approximate crude steel production capability of 45 million tons per year. In 2020, we celebrated 11 consecutive years of being selected as the “World’s Most Competitive Steel Company” by World Steel Dynamics (WSD), a globally renowned steel analysis institution.
Global Business

POSCO Group businesses span across 52 countries, with approximately 63,000 employees (35,000 in Korea, 28,000 abroad), working in 162 corporate offices and worksites globally.

### 2020 Revenue by Business Area

<table>
<thead>
<tr>
<th>Area</th>
<th>Non-consolidated</th>
<th>Consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel</td>
<td>28,892,877</td>
<td>28,892,877</td>
</tr>
<tr>
<td>Trade</td>
<td>19,345,222</td>
<td>19,345,222</td>
</tr>
<tr>
<td>Construction</td>
<td>6,576,170</td>
<td>6,576,170</td>
</tr>
<tr>
<td>Others</td>
<td>2,978,527</td>
<td>2,978,527</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>57,792,796</strong></td>
<td><strong>57,792,796</strong></td>
</tr>
</tbody>
</table>

### 2020 Revenue by Geographic Area

<table>
<thead>
<tr>
<th>Region</th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>36,806,651</td>
</tr>
<tr>
<td>Overseas</td>
<td>20,986,145</td>
</tr>
<tr>
<td>Japan</td>
<td>1,788,839</td>
</tr>
<tr>
<td>China</td>
<td>7,238,063</td>
</tr>
<tr>
<td>Asia (others)</td>
<td>7,897,040</td>
</tr>
<tr>
<td>North America</td>
<td>1,308,943</td>
</tr>
<tr>
<td>Other regions</td>
<td>2,753,260</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>57,792,796</strong></td>
</tr>
</tbody>
</table>

### Global Revenue Breakdown by Region

<table>
<thead>
<tr>
<th>Region</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>63.7%</td>
</tr>
<tr>
<td>Overseas</td>
<td>36.3%</td>
</tr>
</tbody>
</table>

### 2020 Revenue

- **Non-consolidated**: 26,509,921 million KRW
- **Consolidated**: 57,792,796 million KRW

### 2020 Operating Profit

- **Non-consolidated**: 1,135,197 million KRW
- **Consolidated**: 2,403,035 KRW

### 2020 Crude Steel Production

- **Non-consolidated**: 35.935 million tons
- **Consolidated**: 40.579 million tons
Dear POSCO Stakeholders,

The COVID-19 outbreak spurred unprecedented social, economic, and psychological crises worldwide. Both individuals and businesses were affected and POSCO was not immune. However, despite the challenges, POSCO continued to thrive during this difficult time. Therefore, I’d like to begin by expressing sincere gratitude to our shareholders, customers, supplies, partners, local communities, and of course, our valued employees for their unwavering support.

Many economic and social experts claim that global society is in an age of great transformation and that similar crises to what we are facing today will recur again and again. Acknowledging this, POSCO recognizes that going forward, the significance of Environmental, Social, and Governance (ESG) will be more important than ever before.

This is why POSCO has designated “Corporate Citizenship” as its management philosophy alongside the Charter of Corporate Citizenship as the basis for our decision making. Both ensure the well-being of our employees in their work and personal lives. For those not familiar, the Charter of Corporate Citizenship embodies values both directly and indirectly related to ESG factors and UN Sustainable Development Goals (SDGs). These include social harmony, shared growth, fairness, transparency, safety, diversity, and most importantly — environmental protection.

Interestingly enough, the COVID-19 crisis has shown the importance of all this. For example, Goal 17 of the UN’s SDGs revolves around a “global partnership for sustainable development,” and if there is anything that all of us have learned from this pandemic, it’s that the world is a comprehensive network where international goals cannot be reached without joint efforts. With these values in mind, POSCO is establishing new business models and constructing differentiated capabilities, which we believe will make us the leading ESG corporation in the steel industry.

POSCO is also heavily focused on achieving carbon neutrality by 2050 through the development of CO2-mitigation technologies and expansion of eco-friendly, low-carbon product lines. Our long-term goals include securing Carbon Capture, Utilization and Storage (CCUS) technology and other innovative solutions. One of these is HyREX, POSCO’s customized hydrogen reduction steelmaking technology, which will help the Group transition to a greener business model.

This year’s newly founded ESG Committee, alongside the Board of Directors, is helping address climate change policies along with environment, safety, and health-related performance issues. At the same time, we are modifying the framework of ESG management by expanding our Corporate Citizenship Committee to that of a Corporate Citizenship Advisory Group.

POSCO is also strongly focused on creating a robust business ecosystem. We are working hard in collaborating with our local partners and overseas raw-material suppliers. More so, we are making an extra effort to assist those who are experiencing difficulties with environmental, safety, or human rights issues. In doing so, we are enhancing sustainable competence throughout the supply chain.

As the CEO, I am confident that by internalizing the Charter of Corporate Citizenship with the “Corporate Citizenship” philosophy, we will not only contribute to the betterment of ESG management but also the furthering of the UN’s SDGs. I believe that this year, which will mark four years of implementing said ideology, will yield impressive results for our stakeholders.

We humbly ask our stakeholders to continue to support POSCO as the company grows and prospers. And of course, we would also like to thank all of you who have stood by our side along the way.

Jeong-Woo Choi,  
Chief Executive Officer

POSCO will advance its business management based on the Corporate Citizenship philosophy that is the Charter of Corporate Citizenship. Through that, we will develop a new business model creating differentiated competence and achievements from an ESG standpoint.
Message from the COO

Dear Stakeholders,

Despite all the difficulties the COVID-19 pandemic created, it gave us an opportunity to change for the better by reconstructing our economic system in a more sustainable and transparent way.

Steel, being an essential material in modern buildings, infrastructure, and automobiles, never lost its spot as a prime resource in society. However, the industry has seen significant transformations — mainly in terms of eco-friendly production and materials. POSCO recognized this shift and acted accordingly by focusing on supplying structural steel that is lighter, stronger, and more durable. More so, we’ve prioritized the manufacture of sustainable steel as a means to lead today’s low-carbon circular economy while also tackling the challenge of climate change.

With the international community accelerating its shift to carbon neutrality to meet all Paris Agreement objectives, many global industries are focused more than ever on reducing greenhouse gases and adjusting their business models to meet those goals.

In the steel industry specifically, decarbonization gives companies a vital competitive edge, which is why it is currently the number-one goal for POSCO. At the moment, we expect to meet all of our CO₂ reduction targets.

This is great news for us, as after having been selected by World Steel Dynamics, Inc. (WSD) as the “most competitive steelmaker” for 11 consecutive years, POSCO will inevitably become the leader of the steel industry in the near future.

Diving into specifics, POSCO will first concentrate on optimizing the use of raw materials and enhancing energy efficiency while addressing productivity through facility rationalization. To facilitate our next steps, we’re researching other low-carbon solutions, such as amplifying scrap-metal use and upgrading to hydrogen-based fuel technologies.

Down the road, POSCO’s goal is to achieve net-zero carbon on worksites, where the hydrogen-reduction steelmaking method will be a major asset. This is where our innovative hydrogen-reduction method known as HyREX, inspired by our exclusive steelmaking FINEX process will come into play. Should HyREX prove to be effective, POSCO will apply it alongside renewable energy-based electric furnaces and Direct Reduced Iron (DRI), a well-known sustainable steel-production method based on green hydrogen. Combining all three will help us effortlessly attain carbon neutrality.

Simultaneously, POSCO will also focus on safety in its steel mill operations by making all maintenance and repairs a priority. This is more important than ever since the announcement of new industry regulations which state that any direct management or partner company employee may refuse to work in situations lacking an adequately safe environment. Hence, we are providing our full support to the establishment of an organization in charge of partner company safety management and expanding our own safety-smart infrastructure.

With the given groundwork, we aim to achieve corporate citizenship in 2021 and fight against any uncertainty in the industry.

As always, we thank our stakeholders for their unwavering interest, support, and encouragement, and look forward to having all of you on our side as we progress.

Thank you,

Hak-dong Kim,  
Chief Operating Officer  
Head of Steel Business Unit

As the COO in charge of managing low-carbon steel technology and production, I am convinced that decarbonization will keep POSCO as the most competitive steel company far into the future and act as the driving force for it to become the most revered corporation.
When acknowledging our recent success, it is worth looking at the overall picture. Despite emergency spending measures put in place by most advanced nations, the global economy experienced a 4% negative growth rate. The Korean government also extended spending measures, yet exports and domestic demand remained sluggish due to global supply disruption and weak trade. The global steel market suffered a two-fold blow by way of a slump in major industries including automobiles, and margin declines due to rising costs that weren’t accompanied by product price increases.

POSCO took preemptive emergency management measures based on cash-flow-centered management, cost reduction, and the maximized recovery of profitability, as well as focusing on flexible manufacturing and sales system management. Simultaneously, we continued to foster and discover new growth engines for future development.

Meanwhile, the Group businesses improved their liquidity, profitability, and overall business model by following a growth roadmap for core businesses. Moreover, the Group’s future growth engine strengthened the value chain of the secondary battery material business from raw materials to cathode/anode materials while also developing a hydrogen business strategy founded on Group capacity.

We are addressing the environment of decreased operating income caused by the pandemic through cash-flow-centered management via the reduction of net working capital, optimized investment execution, and the sale of disused assets. As a result, our year-end loan and debt ratio is similar to that of last year, while our cash balance is increasing.

In addition, we have strengthened mutually beneficial cooperation through Corporate Citizenship Management Standards, enacted to enhance POSCO’s power of execution, and expansions were made to assist benefit sharing for suppliers and partner companies. We also actively participated in solving social issues, both inside and outside the company. By building artificial reefs, establishing/funding new daycare centers, and hosting symposiums on low birthrate issues, we are highlighting our presence in corporate philanthropy. And lastly, we have been heavily focused on improving workplace safety by creating a joint labor-management committee to discover potential worksite dangers with simple changes such as the installation of intelligent CCTVs and the distribution of smart devices in safety blind spots.
The global economy is expected to gradually recover in 2021 as many countries are retooling their monetary policies, implementing new fiscal stimulus, and swiftly distributing the COVID-19 vaccines. Although there is still economic uncertainty, many say the pandemic presented the world with new opportunities. POSCO is looking to take advantage of this changing business environment through innovation and growth. Therefore, this year we began applying and prioritizing the following business strategies:

**First, Secure a New Competitive Advantage in the Steel Industry**

POSCO plans to continue investing in all of its facilities with the aim of expanding production and increasing sales of high-yield products such as giga-level high-strength automobile steel sheets and high-corrosion-resistant steel for premium home appliances. We will also be accelerating the development of carbon emission reduction technology to upgrade to a greener steel production process. Additional investments will be made in what we envision as market-leading products and solutions including new mobility, steel products for construction, and green energy. We will also be concentrating on advanced marketing techniques in light of the deteriorated commercial environment. Through e-Autopos, an integrated brand of environmentally focused vehicles, and INNOVILT, a premium construction steel brand, POSCO will be participating in joint product development and marketing projects with our business partners. In establishing a low-cost and high-efficiency production system, we plan to promote Smart Factory 2.0, which we expect will improve our overall competitiveness and set a new standard for the steel industry.

**Second, Accelerate Group Businesses Centered on Core Growth**

The liquefied natural gas (LNG) business is piquing interest as a low-carbon energy solution to replace coal. POSCO’s aim is to procure gas reserves throughout Asia and Australia. Our strategic assets in the LNG business will be used to secure further acquisitions and sales. As a response to the increasing demand for LNG, the 6th tank at Gwangyang’s LNG terminal will be expanded to obtain additional infrastructure. The food business is also expected to see an increase with global population growth and economic development. This will expand the value chain based on Ukraine’s grain terminal, which will not only improve profitability but also improve national food security. Meanwhile, smart construction, including the application of pre-construction, will become our base for obtaining growth businesses in the green and digital fields. Through the launch of high-end brands, we expect to see more profitability in the construction business.

**Third, We Will Foster New Green & Mobility Businesses**

In response to the rapid growth of the electric vehicle market, POSCO’s projects focused on secondary battery material will expand its production capacity. This will strengthen the sector’s value chain from raw materials like lithium, nickel, and graphite, to cathode and anode materials. Lithium in particular, which is a core material for secondary battery technology, will be procured via a dialed production system based on Argentinian salt lakes and Australian lithium ore. Because there is high competition for lithium and all previously mentioned materials, POSCO is motivated more than ever to strengthen its purchase competitiveness through joint investments and collaborative technology development with suppliers. In doing so, POSCO is expected to take a major leap to becoming a top-tier global corporation. POSCO also plans to set up a new hydrogen-based business department since the hydrogen economy is rapidly growing. Using our vast resources and abilities, we will establish a base for POSCO to become a leading hydrogen specialist corporation. Under our long-term “2050 Five-Million Ton Green Hydrogen Production Capacity” supply system plan, POSCO will gradually expand its manufacturing and sellable product range of hydrogen, using the hydrogen formed as a byproduct of steel production. POSCO will collaborate with its affiliates in future hydrogen industry developments including transportation, storage, and infrastructure. It will also actively pursue domestic and foreign collaborations regarding other technological developments to continue unearthing more business opportunities.

**Fourth, Implement Fundamental Innovation for Sustainable Growth**

By focusing on innovation, POSCO hopes to discover and address previously existing issues in the company. To ensure these are not neglected, we will be designating a specialized creative task force for each organizational unit including the production, purchasing, and marketing departments. Using design-thinking methodology, POSCO will improve upon existing business processes and thus increase our productivity while lowering costs. This will reinforce our foundation for growth. POSCO strongly believes in the 3C (Challenge, Change, Chance) mindset, which is all about not fearing challenges, welcoming change, and taking new chances in seeking growth opportunities. Combining this with new talent specializing in AI and big data, we will establish a working method that fosters a healthy corporate culture and stable labor-management relations.

**Fifth, Practice ESG Management Centered on Safety and Environment**

Amid increasing social demand for corporate ESG management, workplace safety and low-carbon management will be our top priorities. Therefore, POSCO will be conducting risk assessments on all facilities and worksites and eliminating risk factors by upgrading outdated or unsafe equipment and facilities. Simultaneously, we will be adding more modern safety equipment such as portable CCTVs, smart watches, and safety balls. We will also improve our in-house safety training program for POSCO Group companies and partners as workers’ compliance with the aforementioned is crucial to maintaining a safe workplace. In doing so, we will be able to detect, recognize, and prevent any potential safety issues before they become a bigger problem. As announced in POSCO’s 2050 carbon neutrality declaration last year, hydrogen-reduction steelmaking technology will be utilized to achieve said goals over the long term. In the meantime, we will take advantage of delete existing CO₂-mitigation technologies and low-carbon product development techniques. We will also participate in other carbon-reduction efforts such as the creation of sea forests through the upcycling of steelmaking by-products and eco-friendly calcium silicate fertilizer. To make sure that ESG management performance is at its best, POSCO will be performing continuous inspections through the newly established ESG Committee. Every executive and employee at POSCO will practice the corporate citizenship management philosophy as it pertains to their position to improve upon our company’s values. Through innovation and growth, we will strive to become a corporation that is respected by and inspiring to our shareholders, employees, and local communities while maintaining our reputation as a trustworthy business partner.
OVERVIEW

Business Model

POSCO's communications with its stakeholders are based on the corporate citizenship management philosophy of "Building a Better Future Together," which focuses on the fact that corporate citizens should help each other grow. This is why we are developing a business model that goes beyond just the financial aspects, and emphasizes both social and economic values. It is through this that we are becoming the best company to work for and do business with.

Business Model

Inputs

**Financial Capital**
- Equity: 45.1147 trillion KRW
- Liabilities: 11.6802 trillion KRW

**Manufactured Capital**
- Tangible assets: 20.2169 trillion KRW
- Production capacity: 40.680 million tons

**Intellectual Capital**
- R&D: 549 persons
- Manufacturing Capital: 20.61689 trillion KRW
- R&D Expenses: 614.5 billion KRW

**Human Capital**
- Number of Employees: 17,937 persons
- Employee Training Costs: 21,681 million KRW
- Employee Training Hours: 1,397,942 hours

**Natural Capital**
- Energy usage: 374,874,610GJ
- Total Water Intake: 136.4 million m³
- Raw material inventories: 1,868,166 million KRW

**Social and Relationship Capital**
- Paid association fees: 6,808 million KRW
- Employee Volunteer Hours: 319,305 hours

Value Creation Approach

**BUSINESS**
- Value promotion and protection of rights and interests, credit rating management, etc.

**SOCIETY**
- Creating of robust supply chain ecosystem, shared growth, etc.

**PEOPLE**
- Safe and inclusive workplaces

**OUTS**

**Financial Capital**
- Revenue: 26.5099 trillion KRW
- Profit: 965.9 billion KRW
- Debt ratio: 25.9%

**Manufactured Capital**
- Output of crude steel: 35.935 million tons
- Eco-friendly product sales: 2.40 million tons

**Intellectual Capital**
- Domestic patents (cumulative): Approx. 12,500
- Overseas patents (cumulative): Approx. 2,400

**Human Capital**
- Employee satisfaction rate: 89 points
- Female employment ratio: 5.0%
- Employee productivity: 2,003 tons

**Natural Capital**
- By-product re-used ratio: 98.8%
- Carbon emissions (Scope 1 & 2): 75.65 million total CO₂
- Atmospheric emissions (Dust, NOx, SOx): 65.8 thousand tons

**Social and Relationship Capital**
- Launch of and participation in the Green Steel Committee
- Announcements of 2050 Carbon Neutrality
- Total waste collection by the Clean Ocean Volunteer Group: 130 tons

*Coverage: Non-consolidated*
OVERVIEW

Performance Review

Financial Performance

1 Business Performance

Despite the financial impact of the pandemic, POSCO managed to make up for the slow business period in the first half of 2020. The restoration of normal economic activity undoubtedly helped. However, one other factor that played a role was increased domestic demand for raw materials in China, which led to a decrease in the import of low-priced raw materials imported to Korea. This helped POSCO achieve a respectable revenue of 26.5099 trillion KRW — only a 3.8636 trillion KRW decrease from 2019. Meanwhile, POSCO’s operating profit was 1.1352 trillion KRW, a decrease of 1.4512 trillion KRW from the previous year, and current profit was 965.9 billion KRW, a decrease of 209.9 billion KRW from 2019.

Finance Income and Costs

<table>
<thead>
<tr>
<th>Category</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>30,659,425</td>
<td>30,373,511</td>
<td>26,509,920</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>25,728,293</td>
<td>26,700,874</td>
<td>24,323,352</td>
</tr>
<tr>
<td>Gross profit</td>
<td>4,931,132</td>
<td>3,672,637</td>
<td>2,186,568</td>
</tr>
<tr>
<td>Selling and administrative expenses</td>
<td>1,121,756</td>
<td>1,086,278</td>
<td>1,051,371</td>
</tr>
<tr>
<td>Operating profit</td>
<td>3,809,376</td>
<td>2,586,359</td>
<td>1,135,197</td>
</tr>
<tr>
<td>Finance income costs</td>
<td>171,614</td>
<td>310,440</td>
<td>410,483</td>
</tr>
<tr>
<td>Other non-operating income and expenses</td>
<td>△1,226,091</td>
<td>△1,315,568</td>
<td>△537,800</td>
</tr>
<tr>
<td>Profit before income tax</td>
<td>2,234,899</td>
<td>1,831,249</td>
<td>1,017,380</td>
</tr>
<tr>
<td>Income tax expense</td>
<td>1,162,307</td>
<td>655,537</td>
<td>52,017</td>
</tr>
<tr>
<td>Profit</td>
<td>1,072,592</td>
<td>1,175,712</td>
<td>965,863</td>
</tr>
</tbody>
</table>

(Unit: one million KRW, Separate Financial Statements)

2 Financial Position

POSCO’s total assets amount at the end of 2020 was 56.7950 trillion KRW, showing an increase of 1.842 trillion KRW from that of 2019, and the total liabilities amount was 11.8803 trillion KRW showing an increase of 1.5827 trillion KRW from that of 2019. The total equity was 45.2721 trillion KRW, which showed a decrease of 499.5 billion KRW from that of 2019.

<table>
<thead>
<tr>
<th>Category</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current assets</td>
<td>16,716,400</td>
<td>18,216,686</td>
<td>19,579,954</td>
</tr>
<tr>
<td>Non-current assets</td>
<td>37,329,580</td>
<td>37,494,700</td>
<td>37,215,095</td>
</tr>
<tr>
<td>Total assets</td>
<td>54,125,980</td>
<td>55,710,766</td>
<td>56,794,969</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>3,895,973</td>
<td>3,331,446</td>
<td>5,089,111</td>
</tr>
<tr>
<td>Non-current liabilities</td>
<td>4,957,905</td>
<td>6,765,135</td>
<td>6,591,154</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>8,853,878</td>
<td>10,096,581</td>
<td>11,680,265</td>
</tr>
<tr>
<td>Total equity</td>
<td>45,272,102</td>
<td>45,614,185</td>
<td>45,114,704</td>
</tr>
</tbody>
</table>

(Unit: one million KRW, Separate Financial Statements)
The Cash Flows section discusses POSCO’s 2020 business activity, which totaled 5.1577 trillion KRW, an increase of 556.7 billion KRW from 2019. This increase in cash flows was due to a combination of factors, including increased production capacity, improved efficiency, and effective financial management.

The Production Capacity section highlights POSCO’s total crude steel output in 2020, which amounted to 35.935 million tons, a capacity utilization rate of 88.3%. This output is achieved through a combination of domestic and overseas production, with PT.KRAKATAU POSCO producing 3.1 million tons and Vietnam’s POSCO YAMATO VINA STEEL JOINT STOCK COMPANY producing 554 thousand tons. Overall, the total production capacity for crude steel reached 40.579 million tons.

The Research and Development section addresses POSCO’s investment in research and development (R&D) expenditures, which amounted to 556.7 billion KRW in 2020. This expenditure was used to achieve several major project goals, including the development of new technologies and the enhancement of existing facilities.

The Environmental Performance section focuses on POSCO’s efforts to reduce its carbon footprint. The company plans to meet the “POSCO 2050 Carbon Neutrality” goal by first achieving a 20% carbon reduction by 2030 and 50% carbon reduction by 2040. POSCO aims to achieve this goal by utilizing hydrogen-reduction steel, which involves the implementation of novel technologies.

The Non-Financial Performance section discusses POSCO’s commitment to sustainability and its efforts to reduce emissions. The company has invested approximately 1.05 trillion KRW in various initiatives to reduce both ducted and diffuse emissions by 5,000 tons. POSCO plans to further reduce its carbon footprint through the implementation of additional technologies.

Overall, POSCO’s focus on sustainability and innovation demonstrates its commitment to becoming a carbon-neutral company and contributing to the global effort to combat climate change.
Driving Circular Process
Since the introduction of a driving circular process management system in 2002, POSCO has been monitoring the generation of by-products and treatment processes and increased the recycling rate over the years. In 2020, the byproduct recycling rate was 98.8%, with calcium silicate fertilizer and TRITON reef being some of the top reused materials.

Water
Water shortage is a familiar issue in certain areas, which is why POSCO is working with local communities to prepare and prevent any possible water issues. One such example is Pohang Steelworks, which is deriving its daily industrial water supply from drainage treated in Pohang’s urban sewage treatment facilities. Meanwhile, Gwangyang Steelworks is using seawater desalination to purify its generator-cooling industrial water to reduce overall usage.

Chemical Substances
To systematically manage the distribution of chemical substances used in our steelworks, POSCO has had a system to monitor the whole chemical substance distribution and handling process from warehousing to usage since 2016. In addition, POSCO has been operating a special disaster-prevention center which features emergency vehicles and specially trained personnel. On an annual basis, POSCO conducts joint public-private mock drills while hosting frequent fire safety drills and training sessions. Although our preventive procedures are well-thought-out, as a safety-focused company, we are continuously working to improve our ability to respond to safety-related incidents.

Social Performance
Green Steel Committee
POSCO was the first Asian steelmaker operating on blast furnaces to make the 2050 carbon-neutrality pledge in December 2020. Therefore, to continue to lead the steel industry as a sustainable company, POSCO established the Green Steel Committee, on which the POSCO CEO serves as co-chair. Its addition to the company will be an asset in furthering joint industrial investments and technological development.

Customers
For most of 2020, POSCO has focused its marketing capabilities on the growing green business market. To influence its clients, POSCO is creating a platform where customers as well as related departments can take advantage of other eco-friendly products such as solar panels, wind turbines, and green vehicles. Through efforts such as collaborative technology development, joint promotion of P&T orders, and regular consultative groups, POSCO expects to increase its sales from 2020's 2.4 million tons to 2.7 million tons in 2021.

Employees
In an effort to keep our company modern and strengthen communication between generations, POSCO operates a Young Board Program. Because of it, we’ve been able to ensure that the needs of younger employees are heard by our top-level executives. For example, in 2020, the Young Board issued a proposal to assure that couples expecting children will be guaranteed paid leave, including for situations like prenatal screening — this applies to not only the pregnant employee as was previously, but now applies to spouses as well as couples who are adopting. The Young Board also influenced POSCO to extend childcare and parental support up to and beyond the child’s first year. As a result, POSCO now operates a healthy corporate environment that promotes stable childcare support for its employees and consequently helps resolve the greater social issue of a low birthrate.

Suppliers
POSCO selects its POSCO Honored Partner (PHP) suppliers based on their excellence rating by the Supplier Relationship Management (SRM) evaluations, which are reviewed annually. The SRM accounts for any added or deducted ESG points and provides training and improvement support before each audit, guaranteeing that the steel supply chain remains healthy.

Partner Companies
To guarantee the safety of our partners’ employees across worksites, POSCO has upgraded and reorganized our approach so that everyone present on production sites, including contract workers, will be guaranteed the same safety rights as POSCO’s own employees. In the first quarter of 2021, POSCO went a step further and established a branch dedicated to supporting the safety management of business partners. POSCO now provides any partner company employee the right to refuse to work if their safety is a concern.

Local Communities
One of the top priorities at POSCO is taking care of the local communities where worksites are located, which means our philanthropic work is first focused on these areas. As an example, in 2020, POSCO provided meal kits for local seniors as well as children who have been adversely affected by COVID-19. POSCO also created a contact-free gamified mobile science program which was distributed across 10 schools and 1,640 students. Furthermore, 13 facilities were remodeled into barrier-free areas to improve access for the local handicapped community.

Governance Performance
ESG Committee Launch
The significance of ESG management continues to grow as climate change poses a threat to both society and future business competitiveness. Hence, POSCO is actively seeking all stakeholders’ opinions on the matter and actively responding to them. In the first quarter of 2021, POSCO even established an ESG committee composed of ESG experts. With this, our company can monitor any major policy changes and ensure that POSCO, as a corporate citizen, fulfills its social responsibilities.
POSFCO’s ESG and UN SDGs Activity Directions

**Business**
- Respond to climate change
- Improve atmospheric environment
- Promote recycling
- Water management

**Society**
- Enforce local community sharing activities
- Strengthen supply chain management
- Transition to ethically sourced minerals

**People**
- Implement safe workplaces
- Strengthen employee health management
- Foster talent and strengthen competence

**Governance**
- Strengthen independence of the board of directors
- Implement transparent tax policy
- Enforce preemptive risk management

**Build smart factories**
- Grow lithium business
- Expand eco-friendly new product sales
- Create venture platforms

- Construct marine forests and preserve biodiversity
- Present role models to resolve low birthrates
- Support youth employment/startups

- Promote diversity and inclusion
- Construct win-win labor relations
- Develop creative organizational culture

- Ethics management
- Fair trade
- Information security
Special Response to COVID-19

The COVID-19 pandemic turned 2020 into a year of hardship. The global population was impacted by the loss of lives and jobs amidst economic turmoil, and the collapse of medical and educational systems led to the infringement of basic human rights. Manufacturing businesses worldwide were forced to reduce output and execute emergency management procedures, and the steelmaking industry in particular saw a sharp decrease in sales due to economic stagnation and lockdowns in major exporting countries. To make matters worse, this became a two-fold blow to many steel companies when materials prices skyrocketed, as they account for a large part of our costs. Despite this, POSCO secured business through enhanced health and risk management at both domestic and overseas worksites. We turned this crisis into an opportunity and will continue to prosper as we build a robust steel supply chain while supporting our local communities.

Enhancing Health Management at Domestic and Overseas Worksites

After the first case of COVID-19 was confirmed in Korea on January 20, 2020, POSCO immediately activated its emergency response system and formed a special task force team. Various countermeasures were taken to assure the safety of our domestic and overseas workers and prevent the pandemic from affecting our business.

For example, we implemented a mask mandate for all employees and required everyone to make daily personal checks via the COVID-19 self-diagnosis mobile app. We also issued business travel restrictions and instructed all non-worksite employees to telecommute when possible. All outsiders were prohibited from entering corporate premises and thermal imaging cameras were installed to monitor any visitors on our properties. Since masks and other personal protective equipment were scarce early on, POSCO made sure that all our overseas employees were delivered the necessary supplies. To assure job security both within our company and related industries, POSCO has decided to limit paid holidays as it allows us to recruit for new full-time positions even amidst the economic recession.

Maintaining Business Competitiveness Through Risk Management

Even with POSCO’s rapid implementation of the emergency management system and added efforts to reduce materials costs, it could not avoid a drop in output and sales. Total crude steel output for 2020 saw a decrease of around 2 million tons compared to 2019, while Q2 operating income came in at a deficit of 108.5 billion KRW. POSCO also had to execute its first paid business suspension period since the company’s inception. We, however, do not see this as a loss, as the company has great responsibility given its position and influence in the steel industry. POSCO has and will maintain its level of business competitiveness through the three following strategies:

1. Securing liquidity and reinforcing cost competitiveness through a cash-flow-centered preemptive management system (from April 2020)
2. Enhancing sales of WTP (World Top Premium) products
3. Expanding both output and sales of secondary batteries by bold investments in core future growth businesses

Through these strategies, POSCO saw a V-shaped recovery with Q3 2020 marking a turnaround point and Q4 recording an operating income of 523.7 billion KRW.

2020 POSCO Management Performance per Quarter (Non-consolidated) (Unit: one hundred million KRW)

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Sales</th>
<th>Operating income</th>
<th>Operating income rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>69,699</td>
<td>2,619</td>
<td>3.8%</td>
</tr>
<tr>
<td>Q2</td>
<td>58,048</td>
<td>-1,085</td>
<td>-1.8%</td>
</tr>
<tr>
<td>Q3</td>
<td>65,779</td>
<td>4,0%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Q4</td>
<td>70,774</td>
<td>5,237</td>
<td>7.4%</td>
</tr>
</tbody>
</table>
Building a Robust Supply Chain Through Financial Support

To support other small and medium-sized steel businesses facing similar difficulties due to COVID-19, POSCO co-established the Mutual Steel Cooperation Fund with Hyundai Steel in June 2020 in the amount of 100 billion KRW. This fund allows qualifying businesses, including those unaffiliated with either POSCO or Hyundai, to take out loans at a 1.05% lower interest rate than the open market. As of the writing of this report, we were able to provide emergency financial relief to 158 small and medium-sized businesses and enterprises. We can proudly say that this is the first case in which conglomerates came together to form a joint fund to support support companies in the same field. It was also seen as a considerable source of support for the steel industry’s recovery from the economic crisis.

Mutual Steel Cooperation Fund
(Co-established by POSCO & Hyundai Steel)

- Support target companies: Steel industry supply chain
- Traded, non-traded, small and medium-sized businesses, medium-sized enterprises
- Application submitted
- Recommendation agents
- posco
-_evaluation agents
- Amount defined after internal audit

Total of 100 Billion KRW
Loan Execution (Reduction of 1.05%)

Evaluation agents

Recommendation agents

POS CO Partners Company A
Due to a sharp drop in sales as a result of the pandemic, there was a 10% decrease in turnover compared to the same period in 2019. The overwhelming situation also aggravated liquidity issues as the withdrawal of foreign bonds became more difficult. However, thanks to the support from POSCO's Mutual Steel Cooperation Fund, it was possible to avoid a major crisis.

Supporting Communities to Overcome COVID-19 Hardships

During February 2020, POSCO donated 5 billion KRW to aid local communities. With this, both executives and employees of the five group companies (POSCO International, POSCO E&C, POSCO Chemical, POSCO Energy, and POSCO ICT) are now volunteering at local community medical facilities and disease prevention centers. One of the projects involved offering children and seniors boxed meal deliveries, and arranging for remote education.

We also hosted “thank you” concerts at medical centers to lift the spirits of the hard-working medical personnel and artists who lost opportunities to perform due to COVID-19 restrictions.

POSCO made additional donations of 1 billion KRW to Wuhan, China, where the coronavirus originated. We also supported factory-area residents in Vietnam by purchasing local farm produce from the area.

Recruiting New Employees Through Virtual Means

Restrictions and lockdowns made the job market for many young people quite challenging to navigate. Therefore, to address the growing unemployment rate and stimulate economic recovery, POSCO did not alter its new employee recruitment plan for 2020. Instead of our usual career fairs, we opted for virtual methods through online media such as the POSCO Newsroom and POSCO TV on YouTube.

POSCO Heroes

To acknowledge and thank those who put their time and effort into fighting the COVID-19 crisis, the POSCO T.J. Park (Chungam) Foundation rewarded selected individuals with the title of Hero. In December 2020, seven medical staff members including nurses and frontline volunteers were presented with educational fellowships for their children. The seven heroes: Sung-suk Kang (Head nurse, Bundang CHA Hospital), Hye-sil Kim (Head nurse, Gunsan Medical Center), Hee Park (Head nurse, Incheon City Medical Center), Eun-hee Bae (Head nurse, Kyungpook National University Hospital), Hyang-ran Lee (Head of the Infection Control Team, Jeju National University Hospital), Min-jung Chu (Nurse, Sangju Red Cross Hospital), and Jung-rok Yoo (Volunteer). All selections were made with recommendations from the Korean Nurses Association. Dubbed the POSCO Heroes Fellowship, this project's goal was to support and celebrate the honorable and hard-working citizens who have sacrificed a lot for their country and community. It was originally established in 2019 to build a better, more just society by recognizing inspiring public officials and civilians. By the end of 2020, the POSCO Heroes Fellowship had recognized a total of 25 heroic individuals.
OVERVIEW

Steel Production Process and Products

POSCO is always looking toward the future with a commitment to minimizing the overall environmental impact of our products, which are used not only by our customers but also the end users. POSCO is devoted to developing highly functional new products that are safe and free from harmful physical effects for everyone.
In 2018, the 50th anniversary of our founding, POSCO announced its new “Corporate Citizenship: Building a Better Future Together” philosophy as a step to becoming a long-lasting centennial company. The core idea of this philosophy is that corporations, which are arguably key economic drivers, focus not only on profit but also resolving our society’s social issues. In other words, the philosophy presents a business model based on the virtuous cycle of economic and social values. This will be more important than ever in the future, as stakeholder capitalism becomes more prominent and ESG management grows in importance.

POSCO enacted the Charter of Corporate Citizenship soon after on July 25, 2019. It is the very standard of POSCO’s unique corporate culture and serves as a compass to guide our employees, specifying the vision and goals that our corporate members, executives, and employees should abide by. The key points are inspired by ESG principles, namely, “harmonization with society, shared growth, fairness and transparency, environmental protection, safety, and diversity and inclusion.” The word “society,” highlighted nine times within the Charter, reflects POSCO’s will to bond with global communities. We believe it will lead to a natural creation of a virtuous cycle that subsequently will contribute to the outstanding execution of ESG principles.

Performance-based ESG, based on our corporate citizenship management philosophy, aims to ensure the sustainable development of our society. One of our goals is to create a stable industrial ecosystem by providing job opportunities through cooperation with business partners and promoting the betterment of local communities. Inequality will be addressed by collaborating with local communities as well, so that a robust supply chain ecosystem can be constructed through partnerships. And of course, we will build upon our corporate citizenship philosophy by focusing on the well-being and health of our employees.
POS从来不认为自己的企业只局限于盈利，而是尽量去成为一个更好的企业。对于POS来说，企业和社会是不可分割的。POS和POSCO的理念是高度一致的，以公司公民身份参与社会，承担自己的社会责任，为社会的价值和利益而努力。
**Fair and Timely Payment**

To promote cash liquidity and ease the financial burden on our business partners, POSCO has paid all small and medium suppliers and enterprises cash-in-full upon delivery since 2004. In 2018, POSCO also scrapped the lowest bidder system, replacing it with those focused on fair trade. These include the anti-ALT (abnormally low tender) bidding, market price competitive bidding, and total cost bidding. In 2019, POSCO launched the subcontract win-win payment system, which guarantees all payment collection with subcontractor fees paid directly to tier 2 suppliers. That same year, POSCO also operated a preferential purchase system for socially friendly enterprises, which gave incentives to companies prioritizing social well-being. Through this, POSCO is strengthening the industrial ecosystem and creating a culture where social responsibility is a focal point.

Registered product ratio among newly introduced products

67%  

**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. Participating companies 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. To this day, the benefit-sharing system continues to contribute to the localization of materials, parts, and equipment.

Projects undertaken (2018–2020)  

522  

Benefit compensation paid (2018–2020)  

133.6 billion KRW

**Productivity Innovation**

Through POSCO’s exclusive innovation methodology, Quick Six Sigma (QSS), we are operating smart capacity-building consulting to support and improve partnering SMEs. POSCO also participated in the Support Project for Building Win-Win Smart Factories for Large, Medium, and Small Businesses, hosted by the Ministry of SME and Startups (MSS) with the goal of enhancing productivity for small and medium-sized business partners through process intelligence and optimization.

Amount contributed over 5 years (2019–2023)  

20 billion KRW

**Open Sourcing (e-Catalog)**

POSCO recently established an e-catalog system to allow suppliers to freely promote their items without having to visit the steel mills in person. As of 2020, 13,622 items have been introduced. Among them, 9,131 have been registered as available for purchase. Through this system, even suppliers with no existing business relationship with POSCO can promote their products.

Registered product ratio among newly introduced products

67%  

**Corporate Citizenship Friends**

In 2019, the Corporate Citizenship Friends program launched to help POSCO’s partner companies and suppliers contribute to social, safety, and environmental improvement in local communities. POSCO matches all participating partners’ financial contributions towards projects on a one-to-one basis. This is yet another example of POSCO’s dedication to the corporate citizenship management philosophy.

No. of recruits hired by POSCO’s partner SMEs

126

**POSCO Youth Dream Job Matching**

To address the issue of local community unemployment, especially among the youth, POSCO is helping job seekers receive the necessary education and training. Outstanding talent is then referred to one of the small or medium-sized partner companies, which helps the community prosper in the long-run.

Over 5 years (2019~2023)  

$20 billion KRW

**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. Participating companies 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. To this day, the benefit-sharing system continues to contribute to the localization of materials, parts, and equipment.

Projects undertaken (2018–2020)  

522  

Benefit compensation paid (2018–2020)  

133.6 billion KRW

**Productivity Innovation**

Through POSCO’s exclusive innovation methodology, Quick Six Sigma (QSS), we are operating smart capacity-building consulting to support and improve partnering SMEs. POSCO also participated in the Support Project for Building Win-Win Smart Factories for Large, Medium, and Small Businesses, hosted by the Ministry of SME and Startups (MSS) with the goal of enhancing productivity for small and medium-sized business partners through process intelligence and optimization.

Amount contributed over 5 years (2019–2023)  

20 billion KRW

**Open Sourcing (e-Catalog)**

POSCO recently established an e-catalog system to allow suppliers to freely promote their items without having to visit the steel mills in person. As of 2020, 13,622 items have been introduced. Among them, 9,131 have been registered as available for purchase. Through this system, even suppliers with no existing business relationship with POSCO can promote their products.

Registered product ratio among newly introduced products

67%  

**Corporate Citizenship Friends**

In 2019, the Corporate Citizenship Friends program launched to help POSCO’s partner companies and suppliers contribute to social, safety, and environmental improvement in local communities. POSCO matches all participating partners’ financial contributions towards projects on a one-to-one basis. This is yet another example of POSCO’s dedication to the corporate citizenship management philosophy.

No. of recruits hired by POSCO’s partner SMEs

126

**POSCO Youth Dream Job Matching**

To address the issue of local community unemployment, especially among the youth, POSCO is helping job seekers receive the necessary education and training. Outstanding talent is then referred to one of the small or medium-sized partner companies, which helps the community prosper in the long-run.
The 2020 COVID-19 pandemic is helping both the industry and society progress to a more modern and better future. Many of the changes we see today are owed to venture businesses that are commercializing new technologies and ideas. In hopes of taking advantage of this accelerated progress, the POSCO Venture Platform, composed of Venture Valley and Venture Fund, continuously seeks, fosters, and invests in promising startups. The POSCO Venture Platform will be a key driving force behind the group’s innovation and sustainable growth.

**Biz Day**

POSCO’s Biz Day is a business-matching program that seeks to establish a mutually beneficial cooperation model between POSCO and venture businesses. Biz Day helps POSCO collaborate with up-and-coming venture businesses to achieve cost-reduction results, while helping the latter improve their corporate growth by securing new markets and increasing sales.

**Idea Market Place**

POSCO hosts the Idea Market Place twice a year to identify promising venture businesses. From the idea stage, business model establishment, and investment assistance to follow-up management, POSCO provides comprehensive support throughout the building process. Ultimately, our mission is to develop a full-cycle virtuous venture platform in which startup companies grow not only themselves but future talent as well.

**Venture Businesses Cultivation**

POSCO supports the nurturing and cultivation of various venture business and startup spaces, including the Seoul CHANGE UP GROUND, a private-public cooperation and incubation center. We are also helping strengthen venture businesses via practical support programs such as sales networking and investment linkage.

**Industry-Academia-Research Cooperation Information Portal**

POSCO is currently operating two enterprise portal (EP) apps. One focuses on the sharing of research from the collaboration between industry members and academia. The other gives access to information from our Venture Fund and Venture Valley sectors. Both give the POSCO group’s employees easy access to all necessary information they need to make better business decisions.

**Challenge with Posco**

The 2020 COVID-19 pandemic is helping both the industry and society progress to a more modern and better future. Many of the changes we see today are owed to venture businesses that are commercializing new technologies and ideas. In hopes of taking advantage of this accelerated progress, the POSCO Venture Platform, composed of Venture Valley and Venture Fund, continuously seeks, fosters, and invests in promising startups. The POSCO Venture Platform will be a key driving force behind the group’s innovation and sustainable growth.
Green with Posco

As a corporate citizenship, POSCO is making joint efforts to uphold its 2050 carbon-neutrality promise via continuous communication and activities with its stakeholders. This goes beyond simply developing low-carbon steel technology. POSCO also encourages all employees to brainstorm novel ways to be eco-friendly and to behave in a greener manner in their everyday lives.

Clean Ocean Volunteer Group

Expanding on the marine-friendly focus of the steelmaking industry, POSCO launched the Clean Ocean Volunteer Group in 2009 to help restore the marine ecosystem and preserve its biodiversity. Its members are composed of POSCO executives and employees, who volunteer by participating in ocean cleanups and starfish collection in waters regional to POSCO group worksites.

Sea Forest Cultivation

Since 2009, POSCO has been working with the Research Institute of Industrial Science and Technology (RIST) to cultivate the TRITON sea forest. The TRITON reef has exceptional physical stability when installed underwater due to the hyperbaric and high-strength characteristics of the steel slag—zero tidal wave damages were reported. POSCO is also contributing to Blue Carbon, which absorbs and stores carbon dioxide through TRITON. This sea forest cultivation technology was developed by POSCO and is not just an excellent example of resource utilization, but also a contribution to restoring marine biodiversity. It was even highlighted at the World Congress for Conservation of Nature (WCC) and the World Council for Sustainable Development (WBCSD).

Ulleungdo Island Sea Forest Cultivation Project

* TRITON is a reef made with POSCO’s steel slag. TRITON reef’s safety was verified through environmental stability and marine bio-food safety evaluations, and designated as a national general reef.

Creating Workspaces Without Disposable Cups Small Carbon Reduction Efforts to Practice in Everyday Life

To achieve carbon neutrality, POSCO believes one needs to look beyond the corporate role in the matter. As a corporate citizen, we need to practice small changes in everyday life. For this reason, POSCO is gradually changing its company vehicles to eco-friendly options. We also encourage all executives and employees to use tumblers and mugs instead of disposable cups. In fact, the POSCO Seoul Office, Pohang/Gwangyang Steelworks, and Technical Research Laboratories all prohibit disposable cup use on site. In addition, POSCO is planning an idea contest for activities that inspire greener living. Low-carbon technologies and concepts developed through cooperation with external organizations will be actively supported by the POSCO group.
POSCO is eager to find solutions for resolving the low birthrate problem starting at the corporate level. We are joining forces with local governments to form communities near POSCO worksites in Pohang and Gwangyang with the aim of developing the best environment for raising children. POSCO is also operating various programs for supporting youth employment.


POSCO, along with the Presidential Committee on Aging Society and Population Policy (PCASPP) and the Population Association of Korea joined forces to host the “2020 Low Birth Rate Symposium,” seeking resolutions to the social issue of low birthrates. Since a growing number of provincial cities are facing the danger of population decrease, this event provided a major opportunity to begin a discussion on how to create family-friendly environments that encourage the birth and enrichment of future generations. POSCO also contributed to the publishing and distribution of educational materials that focus on teaching family values to communities.

### POSCO Youth Dream (3-week course)

POSCO developed a course that aims to empower young people to gain a competitive edge in the job market. The course involves cover letter composition, simulated job interviews, and executing hands-on corporate tasks using the Design Thinking methodology. The best-performing students are then offered a two-month internship opportunity at POSCO Group University.

### Working from Home During Child-Rearing Period Without Interrupting One’s Career

POSCO has introduced a special Work From Home (WFH) system for the parental leave period to prevent career discontinuity. It allows the use of paid leave for prenatal checks by all employees to encourage a culture in which both male and female employees readily participate in childcare. In addition, we have extended infertility treatment leave from five to ten days and offer support for related treatment costs.

### Customized brochures/teaching tools Executed training sessions

- 1,800
- 10 schools targeted (56 sessions, 980 students)

### POSCO Employment Academy Supporting Youth Employment and Startups

POSCO’s startup incubating school teaches important business basics for prospective entrepreneurs such as business value verification and business plan composition. The program also provides professional coaching to identify promising ideas and talented entrepreneurs to participate in POSCO’s Idea Market Place.

### Youth AI and Big Data Academy (12-week course)

To foster future talent that will pioneer the 4th industrial revolution, POSCO now offers a practical training program focusing on teaching hands-on business skills based on AI and Big Data, and related problem-solving tasks. Students that excel during this program are recommended for the two-month POSTECH internship program and other job opportunities at the POSCO Group.

### Mutually Beneficial Daycare Centers to Create a Harmonized Environment for Local Community Births & Childcare

Since March 2020, POSCO is operating Mutually Beneficial Daycare Centers. They provide equal childcare for not only the children of POSCO and POSCO Group employees, but also those of our 51 small and medium-sized partner companies in Pohang as well as 54 more companies in Gwangyang.

### Status of Mutually Beneficial Daycare Center Attendees

<table>
<thead>
<tr>
<th>Category</th>
<th>POSCO</th>
<th>Group company</th>
<th>Partner/Other companies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dongshan, Pohang</td>
<td>29</td>
<td>19</td>
<td>52</td>
<td>100</td>
</tr>
<tr>
<td>Geumdang, Gwangyang</td>
<td>24</td>
<td>15</td>
<td>41</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>34</td>
<td>93</td>
<td>180</td>
</tr>
</tbody>
</table>

### Startup Incubating School (4-week course)

POSCO’s startup incubating school teaches important business basics for prospective entrepreneurs such as business value verification and business plan composition. The program also provides professional coaching to identify promising ideas and talented entrepreneurs to participate in POSCO’s Idea Market Place.
Support for Arts and Culture

POSCO has worked hard to expand its local communities’ cultural infrastructure. One example is providing the sports and cultural facilities in Pohang and Gwangyang as they are areas that have little exposure to cultural and sports events. Residents are able to use these facilities free-of-charge. We believe this encourages people to lead healthy and culturally enriched lives.

The POSCO Pohang PR Center (also known as Park1538), which opened in 2021, goes beyond the role of improving public relations. It’s goal is to allow local residents to learn local history and understand the relationship between the city and its ties to the iron business.

Making Hope-Sharing Lunchboxes

Since 2004, POSCO has been operating soup kitchens for the disadvantaged within Pohang and Gwangyang. Most recently, executives and employees of POSCO and SK volunteered for the Hope-Sharing Lunchbox event in a Songdo-dong, Pohang in January 2021. After the discontinuation of soup kitchen projects due to COVID-19, POSCO had 2,600 people between the two cities offering lunch boxes to the needy three times per week over a three-month period. The lunch boxes are made in small restaurants, 32 of which were in Pohang and 21 in Gwangyang, to provide additional support to small local businesses that faced difficulties due to the pandemic.

Pohang Damupo Coastal Whale Village Revitalization

POSCO’s undergraduate volunteer group “Beyond” usually volunteers on overseas worksites. However, in 2021, due to the COVID-19 pandemic, they are focused on domestic rural village revitalization. For the first project location in the Damupo Whale Village in Nam-gu, Pohang, the “Beyonders” spent two weeks researching the region and its resource availability in order to develop the best possible plan for local revitalization while collaborating with the area’s residents. This project will be executed during the summer of 2021.
Risk Management and Analysis

We live in an era when crises, be they an economic downturn or the COVID-19 pandemic, are constantly a looming threat. The 21st century presents additional challenges such as expanding global trade protectionism, increasing instability within emerging nations, and worsening steel market conditions. Hence, POSCO is committed more than ever to identifying and responding to any risk factor that may affect the company. Our risk management strategy will allow us to swiftly adapt to any rapid changes in the business environment, secure a basis for sustainable growth, and maintain amicable relationships with our stakeholders.

Risk Management Governance
The Corporate Strategy and Planning Division is responsible for POSCO’s risk management system. They constantly monitor every domestic and international investment, and assess business risk factors. The division’s results are always reported to the Board of Directors, after which POSCO can classify each situation as either a “business risk,” “non-business risk,” or a “disaster and crisis.” Each case is then managed by the corresponding department where they can address and alleviate the potential problem as soon as possible.

Business Risks
Business risks are managed by the five offices under the Corporate Strategy and Planning Division. The Corporate Strategy Office handles strategy and competitor risks; The Investment Strategy Office manages investment and overseas business risks; The Finance Office addresses FX (foreign exchange), funds, and other financial risks; The Global Infra Business Management Offices covers major domestic risks for the Group; and the Business Innovation Office is charged with proactively responding to risks related to underperforming or high-risk businesses. External risks related to the steel market, financial market, raw materials market, and competitive strategies and monitored by the POSCO Research Institute (POSRI). These results are periodically reported to POSCO or all Group companies via the Global Information Hub (GiH).

Non-Business Risks
The Corporate Audit Office and the Legal Affairs Office play a leading role in addressing non-business risks including business ethics, compliance, and reputation through the autonomous Risk Management System (RMS).

Disasters & Crises
The ESG Management Group established in 2020, and the Safety & Environmental Planning Office and Safety & Disaster Prevention Groups at Pohang and Gwangyang Steelworks established in 2021 are taking the lead in promoting healthy and accident-free workplace management. All risk-monitoring results, investment-risk results, and risk countermeasures are periodically reported to the BOD-affiliated Special Committees (Executive Management Committee, Finance and Related Party Transactions Committee, Audit Committee, ESG Committee), as well as the BOD. Particularly the ESG Committee, which was recently established in 2021, will play a central role in strengthening ESG risk management.

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

POSCO Group Risk Management System

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 material market conditions, demand-side industries, competitor trends, imported goods, steel industry restructuring
- Industrial Risks: Construction, energy, material, ICT, trade, new businesses
- Emerging Nation Risks: China, Indonesia, Thailand, Vietnam, Myanmar, India, Mexico, Brazil, Turkey, Iran
Sensitivity Analysis and Scenario-based Management

Of all external economic factors, the prices of oil, iron ore, and coal, as well as FX volatility, affect POSCO the most. For this reason, POSCO and Group affiliates routinely monitor potential changes in sales, spending, and profits at least once a month. If any of these indicators suggest a business risk, a response plan is immediately developed and implemented. A similar analysis is done on key risk factors when approving business investment plans.

POSCO is currently refining its investment management process and expanding the management organization to improve our response to any changes in the business environment. In doing so, we will 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 monthly by comparing planned to actual performance.

ESG Assessment During Investment Deliberations

When considering new business investments, POSCO evaluates said business by environmental, social, and governance aspects, which helps identify any potential risks. If any risks are found, the project can only go ahead after necessary countermeasures are in place. In addition, a new profitability assessment must be made showing the impact of ESG on the business, which can boost the chances of a successful agreement. For example, even if the latter assessment shows lower target profitability due to the implementation of ESG, the fact that said business can improve the environment, create more jobs, and potentially benefit their partners can give the business a better chance of closing a deal with POSCO. In particular, in 2021, ESG impact and risk checks have been made mandatory before any investment can be made.

Internal Accounting Control System

POSCO adopted an internal accounting control system in 2001 and has consistently updated it each fiscal year. Because POSCO is registered with the U.S. Securities and Exchange Commission (SEC), it is subject to the rules of the Sarbanes-Oxley Act1), which means the 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 differential control activities according to 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, the Audit Committee, and at the general shareholder meeting.

Operational status assessments are composed of a design evaluation2) and operation evaluation3). All deficiencies identified through this process are improved through consultations with external auditors, responsible departments, and the control executor.

ESG Assessment During Investment Deliberations

When considering new business investments, POSCO evaluates said business by environmental, social, and governance aspects, which helps identify any potential risks. If any risks are found, the project can only go ahead after necessary countermeasures are in place. In addition, a new profitability assessment must be made showing the impact of ESG on the business, which can boost the chances of a successful agreement. For example, even if the latter assessment shows lower target profitability due to the implementation of ESG, the fact that said business can improve the environment, create more jobs, and potentially benefit their partners can give the business a better chance of closing a deal with POSCO. In particular, in 2021, ESG impact and risk checks have been made mandatory before any investment can be made.

Internal Accounting Control System Process

1. Establishing an operational situation inspection plan
   - Formulating improvement plans for missed targets and shortcomings from the previous year, provide process mapping for relevant departments and affiliates, announce main agendas and directions for key inspections

2. Control activity design testing
   - Select a particular transaction as the sample for tracing the process from beginning to end according to transaction evidence, identify risks, and review/evaluate whether the design of control activities is appropriate
   - Check whether the changes in organization and process were properly applied
   - The results of each subsidiary’s self-inspection are reviewed by POSCO

3. Control activity operation testing
   - Double-check all documents related to major control activities and have them reviewed by the operations manager and control executor (leader)
   - Verify evidence of control execution and results
   - The results of each subsidiary’s self-inspection are reviewed by the appropriate department at POSCO

4. Auditing and reporting on the internal accounting control system
   - External auditing firm implements accreditation audits on the design and operation tests performed by the company
   - Internal accounting control operation situations are inspected, with all results reported to the Board of Directors, the Audit Committee, and at the general shareholders meeting

Risk Management System (RMS)

POSCO has been running a Risk Management System (RMS)4) 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. These departments work together with the internal audit departments to help create an organic risk management system by confirming and examining risks directly. Recently, we also developed an autonomous risk prevention system, where data is collected in real-time, enabling field departments to immediately inspect any potential issues.

Risk Management System (RMS)

POSCO has been running a Risk Management System (RMS)4) 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. These departments work together with the internal audit departments to help create an organic risk management system by confirming and examining risks directly. Recently, we also developed an autonomous risk prevention system, where data is collected in real-time, enabling field departments to immediately inspect any potential issues.

Framework for Autonomous Risk Prevention

2) Control activity design testing: Evaluation made on the completeness of the control activity designs intended to prevent and detect erroneous or illegal practices related to financial statements.
3) Control activity operation testing: Evaluation made on whether the control activities are performed in alignment with the risk control matrix.
4) RMS: An evaluation system using grade-categorized risk management that classifies all operations according to tasks, such as finance, purchasing, production management, marketing, and investment, and manages them accordingly.
ESG Materiality Analysis

Risk Response Strategies

POSCO conducts an annual ESG materiality assessment to gain insight into future trends, potential business risks, and new business opportunities in the steelmaking industry.

In 2020, the top 10 core risks were selected through the Group’s risk management system and ESG materiality assessment. In particular, mid-term goals were set and systematically managed in connection with executives’ KPIs.

2020 Materiality Analysis Characteristics

- Strengthening the Connection Between ESG Material Issues and Executive KPIs
  Based on the results of the ESG materiality assessment conducted at the beginning of the year, POSCO has established mid-term strategies for each material issue and set a target for the management of said issues via KPIs.

- Expanding Collection of Stakeholder Feedback
  With fewer in-person interactions due to COVID-19, POSCO has expanded the ways by which feedback from stakeholders, overseas customers, suppliers, investors, employees, and experts can be collected. Some examples are surveys, online meetings, and email newsletters.

Materiality Analysis Process

1. Create or revise the issue pool
2. Assessing the materiality of issues
3. Identify key issues
4. Review issues

- Create the issue pool to satisfy changes in global sustainability guidelines and trends among industry peers, while redefining terminology and integrating existing issues over the past three years.
- Identify a total of 25 sustainability management issues within the economic, environmental, and social areas surrounding POSCO.

- Stakeholders’ Interest
  Research ESG issues that are in the interest of the stakeholders (customers, employees, partner companies, suppliers, local communities, shareholders, and investors)
  - National and international media research
  - Industry market research
  - Global guideline analysis
  - In-depth surveys for stakeholders

- Business Impact
  Analyze impact on POSCO’s business concerning sales, expenses, and risks
  1. POSCO executive meeting agenda
  2. Relevant issues within the CEO Letter
  3. Surveys for executives and employees

- Select ten priority issues from the assessment of stakeholder interests and potential business impact
- Determine a reporting format for POSCO’s ESG activities and achievements on key issues and low-priority issues
- Review issues from POSCO top management and the Corporate Citizenship Office
  - Collect stakeholder feedback on key issues to identify their impact on the overall value chain and POSCO’s global network
  - Use materiality analysis to review corporate citizenship activities and determine appropriate resolution measures

- Organize the publication process for the following year’s Corporate Citizenship Report through third-party verifications performed on the current year’s report publication process and contents
- Design KPIs and specific management plans for all departments and executives responsible for each key issue
### 2020 Key ESG Issues

<table>
<thead>
<tr>
<th>ESG Materiality Matrix</th>
<th>2020 Key ESG Issues</th>
<th>Global Reporting Framework</th>
<th>Stakeholder Impact</th>
<th>Business Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Invest in new businesses</td>
<td>GRI 305 (2016)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Innovate eco-friendly products</td>
<td>GRI 301 (2016)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Strengthen technical development</td>
<td>GRI 305 (2016)</td>
<td>EM 15-120a.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Air quality management</td>
<td>GRI 305 (2016)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Increase reuse of by-products</td>
<td>GRI 404 (2016)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Develop executive and employee skills</td>
<td>GRI 331 (2016)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Proactive risk management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Environmental**: Climate change response, Air quality management, Innovation of eco-friendly products, Expansion of waste recycling
- **Social**: Strengthen workplace health and safety, Enhance manufacturing competitiveness, Develop executive and employee skills, Invest in new businesses, Strengthen technical development
- **Governance**: Proactive risk management

- **Stakeholder Impact**: Customer, Partner Company/Supplier, Local Community, Shareholder/Investor, Executive/Employee
- **Business Impact**: Expenses, Sales, Risk
Key ESG Issues and POSCO’s Response

POSCO encourages active communication through stakeholder feedback on the 10 key ESG issues identified by the materiality analysis to objectively assess the company’s ESG risks. It also helps develop mid-term goals for the 10 key issues and connects them with the management’s KPIs. Through the management of key ESG issues, POSCO will ensure a sustainable future for the industry.

<table>
<thead>
<tr>
<th>Key Risk</th>
<th>Risk Management Plan</th>
<th>KPI</th>
<th>2020</th>
<th>2023 Mid-Term Goals</th>
<th>POSCO’s Achievements</th>
</tr>
</thead>
</table>
| Strengthen workplace health and safety | There has been increased social awareness around safety and health, as we have seen after the outbreak of COVID-19 and the enactment of the Serious Accidents Punishment Act. POSCO is responding to this by prioritizing safety management. | Fatalities | 5 persons  

3) Includes POSCO’s directly operated companies, primary suppliers, and affiliated companies. | 0 persons  

In progress | |
| Climate change response | Visible efforts to achieve carbon neutrality per the Paris Agreement have become a social demand. As POSCO has committed to a 2050 carbon-neutrality goal, we are striving to reduce the average greenhouse gas (GHG) emissions. | GHG emissions | 78.8 million tCO2  

(2017-2019, 3-YEAR PERIOD AVERAGE EMISSION) | 75.0 million tCO2  

In progress | |
| Procure manufacturing competitiveness | With the world entering the 4th industrial revolution, we are seeing Information Technology (IT) progressing rapidly. POSCO Smart Factory is leading the way in securing a sustainable production advantage as a “lighthouse factory,” as selected by the World Economic Forum (WEF). | Integrated Smart Factories (cumulative) | 2 factories | 33 factories  

In progress | |
| Invest in new businesses | Another next-generation growth engine for the Group is our second battery material business, which focuses on lithium. With the rapid growth of the electric vehicle market, we are highly focused on expanding its production capacity. | Cathode and anode material production capacity, lithium/nickel production capacity | 89 thousand tons, 100 thousand tons  

Production facility under construction | 245 thousand tons, 100 thousand tons  

In progress | |
| Innovate eco-friendly products | Eco-friendly products are also increasing in demand. POSCO is currently working on targeting several markets including green automobiles, lightweight car bodies, wind power, solar power, LNG, hydrogen, and 22 other categories. | Eco-friendly product sales | 2.4 million tons | 3.32 million tons  

In progress | |
| Strengthen technical development | POSCO spares no expense in investments for technology development through the Research Institute of Technology and the Pohang Institute of Industrial Science and Technology. Their technical developments give POSCO a competitive edge and are leading the industry’s future by reducing costs and creating new demands for steel. | New technology development cases | 94 cases | 105 cases  

In progress | |
| Air quality management | POSCO has set a goal to improve air quality and defined a total atmospheric emission amount as a key management index. We are expanding our investments to establish more emission-reducing facilities. | Atmospheric emissions (sum total for dust, SOx, NOx) | 65.8 thousand tons | 56.2 thousand tons  

In progress | |
| Increase reuse of by-products | Diverse recycling methods are utilized based on the properties of each by-product. Through these processes, resource circulation is enhanced, and unused by-products are minimized, contributing to a greener society. | By-product reuse ratio (%) | 98.8% | 98.9%  

In progress | |
| Develop executive and employee skills | The growth and development of AI and Big Data has highlighted the significance of a strong knowledge base in all lines of our businesses. Because of this, POSCO is recruiting and nurturing talent with ICT competencies. | New Collar Talent  

3) Employees with modern-age skills and the ability to create new values through new IT technologies. POSCO plans to implement the New Collar Level Certification program for all employees to identify and develop new talent. | 303 persons | 900 persons  

Reasonable | |
| Proactive risk management | As POSCO is registered with the U.S. SEC, it is subject to the Sarbanes-Oxley Act and thus has received substantive testing performed by external auditors on the internal control system since fiscal year 2006. | Assessment of internal accounting system’s operational status | Reasonable | Reasonable | |

1) POSCO’s mid-term goal assessment criteria for GHG emissions output is based on the three-year emissions output for 2017 through 2019.
Stakeholder Engagement

POSCO pays attention to the opinions of our stakeholders, and we reflect their feedback in our business operations. Our stakeholders are categorized into executives, employees, customers, partners and suppliers, local communities, and shareholders/investors. The communication channels are designed differently for each category to ease communication with each group. This strategy helped us gather honest opinions from our major stakeholders in 2020 and formulate our key strategies for 2021.

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 official replies from the company. “Corporate Citizenship Love Letters” is a way to share local community backstories of COVID-19 hardships and is establishing itself as a communication channel befitting the new virtual communication era.

POSCO’s Stakeholder Engagement Policy

Stakeholder Group

- Executives and Employees
- Partners/Suppliers
- Local Community
- Customers
- Shareholders/Investors

Communication Channels

- Investor relations (IR) sessions (quarterly)
- Disclosures
- Face-to-face meetings with investors
- Outside director IR events
- Regular consultations on credit ratings
- Customer Relationship Management (CRM) system
- Customer satisfaction surveys
- Early Vendor Involvement (EVI) forums
- Information-exchange seminars with suppliers
- Meetings with POSCO Honored Partners (PHPs)
- Information-exchange conference with partners
- Local presentations and discussions
- Exchanges with NGOs
- Environmental Improvement Council
- Corporate Citizenship Love Letters
- Labor unions/Labor-Management Council
- Young Board
- Employee satisfaction surveys (P-GWP: POSCO Great Workplace)
- POSCO Today (POSCO internal webpage)
- Operational meetings
2020 In-depth Interviews with POSCO Stakeholders

Customer — KISSWIRE Ltd.
Yong-sik Yoon (Head of Sales and Production Planning Sector)

For customers that process POSCO's wire rods, the sourcing and manufacturing of wire-rod materials is the most important issue. The response to climate change and long-term low-carbon development strategies are prime tasks for the steel industry. From its 2050 carbon-neutrality announcement and development of green products to its active response to major social issues, I consider POSCO a leader in ESG management. Such efforts are improving the sustainability of its customers. I expect to see strengthened global competitiveness as a result of our collaborations.

Supplier — Seoul Engineering Co., Ltd.
Yoon-gi Kim (Head of Production Sector)

Our company is actively participating in the Benefit Sharing System offered by POSCO to our suppliers. Through the Benefit Sharing System, we were able to develop a double-chamber, double-spiral tuyere nozzle and conduct field experiments for POSCO's blast furnace. Thanks to this, we could make early technical modifications and supply products to POSCO in a stable manner. We were also assisted greatly in overseas exports through the delivery performance base of global steelmaker POSCO, which allowed us to make domestic and overseas patent applications. We hope that POSCO's policy of shared growth can be expanded to support test facilities and technical manpower know-how.

Supplier — BHP
Vandita Pant (Chief Commercial Officer (CIO))

The most important ESG issue faced by steel manufacturers, including POSCO, is GHG emissions reduction. For this, short-term phases such as raw material optimization and blast furnace modification optimization must be carried out. Subsequently, a conversion to low-carbon technology, and then a long-term eco-friendly state with almost no GHG emissions must be achieved through hydrogen-based steelmaking and CCUS. Such changes for steel manufacturers would play a key role in reducing global GHG emissions. As a long-time supplier for POSCO, BHP is ready to supply high-quality raw material and collaborate to support steel manufacturers' decarbonization. Through such joint efforts, our society will move toward a sustainable future.

Investor — Hyundai Motor Securities Co., Ltd.
Geun-chang Roh (Managing Director & Research Center Head)

The declaration of 2050 Carbon Neutrality in December 2020 was a rather significant decision made by POSCO since it can wield positive influence on our competitors and partner companies as a steelmaking industry leader. It is important that a conglomerate such as POSCO creates the right infrastructure for small and medium businesses lacking low-carbon preparatory systems or support. I believe POSCO's active assistance is needed for the achievement of carbon neutrality with its partner companies. Investment organizations like ours will support the sustainable decision-making processes of investors by drawing up reports reflecting the corporation's ESG efforts and performance.

Employee — Ha-rim Joo (Assistant Manager)

The action taken by the company when dealing with COVID-19 last year was a source of pride for me as an employee. When the global economy stagnated, it caused unexpected social issues. POSCO provided unwavering support for the employment stability of our workers. I am grateful for the company's efforts in prioritizing and taking charge of the employees' health and safety through strict preventive measures and work-from-home programs. I believe it is now the time to go beyond the crisis and make future developments through eco-friendly product innovation and new business investments. It is through such changes that the company and employees will grow together by sharing a common goal. I expect that POSCO will become a centennial corporation as they do not dwell in the present and instead focus on the future.

Opinion Leader — Jong-soo Han (Professor)

People question whether middle-to-long-term sustainability in the steel industry can be achieved. They expect to hear stories about the expected degree of loss, the costs incurred by Certified Emission Reduction (CER), the amount of investment made in ESG, and how much more sustainable growth can be made possible through said investment. Under such circumstances, POSCO needs to provide reports on “this is what we are doing now, this is what we should be doing, and this is the intermediate process.” Reports on non-financial values will become mandatory in the future. ESG, with a scope wider than that of accounting, is in its early stages, so naturally, diverse methods should be tested. From that aspect, POSCO's newly established Green Accounting Team and its measurement cases were well-intentioned attempts. Through such efforts, decisions will be made on how to convey the company’s performance with stakeholders.
Preventing for the Future

POSCO seeks to redefine the future of the steelmaking industry by being conscious of climate change. With the response to climate change being a priority in today’s society, reducing carbon emissions is now simply a matter of survival. To assure a prosperous future for mankind, many global corporations have set a goal to achieve carbon neutrality by or before 2050, and most are already implementing changes. Companies around the world are actively involving themselves with green businesses such as electric vehicles, renewable energy, and hydrogen. For POSCO to meet the goal of carbon neutrality by 2050, the steelmaking process must be converted to a hydrogen-based method. In addition, we are in the process of constructing a hydrogen ecosystem which includes hydrogen production, supply, and application.

Realization of Hydrogen-Based Steelmaking Process Based on POSCO’s FINEX Technology

In the blast furnace-based steelmaking process, carbon monoxide, a gas generated from coal, is used as the reducing agent. When iron ore and coal are placed into the blast furnace and melted at 1,500°C or higher, carbon monoxide (CO) is generated. This then triggers a reduction reaction ($\text{Fe}_2\text{O}_3 + 3\text{CO} \rightarrow 2\text{Fe} + 3\text{CO}_2$) which separates oxygen from iron ore ($\text{Fe}_2\text{O}_3$) with CO2 generated as a byproduct.

For hydrogen-based steelmaking, hydrogen ($\text{H}_2$) acts as a reducing agent instead of carbon monoxide to separate oxygen from iron ore ($\text{Fe}_2\text{O}_3$). Hydrogen substituting for coal as a reducing agent may seem like a simple change, but it is substantially revolutionary in the fact that CO2 will no longer be generated during steel production. When hydrogen-based steelmaking technology is applied, the blast furnace process of melting coal and iron ore together will be eliminated, and the direct reduced iron (DRI) produced through hydrogen reduction will instead be melted in an electric arc furnace.

POSCO is developing an exclusive hydrogen-based steelmaking (HyREX: hydrogen reduction) technology based on our own FINEX (fine iron ore reduction) process. The FINEX process is different from that of a blast furnace as it directly uses iron ore and coal to produce molten iron through its fluidized bed reactors and melter gasifier. The hydrogen-based steelmaking process is based on the same technology. One key difference between HyREX and FINEX is that FINEX uses 25% hydrogen and 75% carbon monoxide, while HyREX uses 100% green hydrogen.

In addition, for HyREX, the DRI produced in the fluidized bed reactor is melted and purified through an electric arc furnace. DRI is then produced by putting iron ore and hydrogen through a fluidized bed reactors while the products come from the molten iron purified through the electric arc furnace. In other words, the hydrogen fluidized bed reactors and the electric furnace take over the roles of the conventional blast furnace and converter.

POSCO plans to establish a Low Carbon Process Research Group in 2021 with the aim to further develop and commercialize hydrogen-based steelmaking. This will help us lead the way in a carbon-neutral era.
Leading the Way to a “Decarbonization Era”

POSCO is preparing to become a green company that leads the hydrogen economy by achieving 5 million tons in annual hydrogen production by 2050. To meet this goal, POSCO plans to acquire core hydrogen-production technology and nurture the hydrogen business. Becoming a major player in the future hydrogen market will greatly benefit the Group’s growth. Being the next-generation source of clean energy, hydrogen use is expected to increase to 1.94 million tons in 2030 and over 5.26 million tons by 2040. Its field applications are also expected to expand to other industries such as transportation and power generation, no longer limited to the petrochemical industry as it is today.

At the moment, POSCO’s annual hydrogen production capacity is around 7,000 tons from the coke oven gas made during the steelmaking process and natural gas. POSCO is working on enhancing our production and application of hydrogen, through examples such as developing the world’s first steel products for hydrogen fuel cell separators and supplying them to domestic hydrogen vehicles.

POSCO will perform additional research on hydrogen-based steelmaking technology and strengthen our capabilities by developing steel products for producing, transporting, storing, and applying hydrogen. We will also be increasing byproduct hydrogen production facilities and developing core technologies for straightforward hydrogen production itself. In addition, POSCO plans to pursue various business investment opportunities such as distributing and building infrastructure for “green hydrogen” and participating in related projects.

POSCO plans to focus the Group’s capabilities on creating a hydrogen supply chain of production, transportation, storage, and application. POSCO International will take advantage of its overseas business network to participate in several hydrogen projects including those run by the government of Korea and other nations. POSCO Energy will also build a terminal exclusively for storing hydrogen and replace the natural gas turbine power used today with hydrogen turbine power by 2030. POSCO E&C is responsible for hydrogen urban development projects, including hydrogen storage and transportation programs.

A new Hydrogen Business Division was launched in January 2021 under direct control of the CEO. Its purpose is to promote R&D cooperation with domestic and international research, including the RIST in Pohang to develop a full-scale hydrogen business.

POSCO’s many efforts in transforming our steelmaking technology into a hydrogen-based method will be a major push for the hydrogen era.
Climate Change Response

Why Does It Matter?

The issue of climate change is one of the biggest challenges humans have ever faced. We are already experiencing extreme weather events such as flooding, heat waves, and wildfires all over the world. The international community is accelerating its efforts to mitigate its effects, and governments globally are enacting and carrying out policies to cut carbon emissions under The Paris Agreement. Our customers, who range from global investment groups, automakers, IT companies, and renewable energy firms, have joined the pledge to achieve carbon neutrality and are calling for more action from steelmakers.

How Do We Respond?

POSCO announced the Carbon Neutral 2050 vision in December 2050 to abide by the Corporate Citizenship philosophy and meet the demands of stakeholders, which include the government, investors, and clients. We seek to transform the production system and restructure the business model to bolster our competitiveness in terms of sustainability. POSCO plans to achieve carbon neutrality by 2050 incrementally, with a 20% reduction by 2030, and a 50% reduction by 2040 through hydrogen-based steelmaking technology. We have reduced greenhouse gas emissions throughout our products’ life cycles along with our clients by increasing the supply of GIGA automotive steel sheets and hyper non-oriented electrical steel. We are also diversifying our businesses to new materials and energy sectors to secure our green competitiveness.
Responding to Climate Change

Investors and clients understand that the transition toward a low-carbon economy is a prerequisite for building a sustainable society. Making efforts to reduce GHG emissions through the commercialization of innovative low-carbon technologies is the only way for businesses to survive. To that end, POSCO vowed in December 2020 to achieve carbon neutrality and has been at the forefront of practicing corporate citizenship.

POSCO Carbon Neutrality 2050 Pledge

The UN IPCC Special Report, published in October 2018, highlights the importance of lowering the expected global average temperature increase to 1.5°C by 2100 above the pre-industrial level to control numerous threats posed by climate change. Many governments around the world, including Korea, have pledged carbon neutrality by 2050 since then. Major investment groups, businesses, and their clients have followed suit, and are demanding other investment firms and their suppliers to participate in this move. This is why POSCO recognized the urgent need to respond to climate change and established the POSCO Carbon Neutrality 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 fulfill the role of corporate citizen while increasing our competitiveness through transitioning into a low-carbon production line and restructuring our business model.

Our carbon neutrality roadmap aims to reduce 20% of carbon emissions by 2030 and 50% by 2040. We will maximize our emissions reduction at operating sites while avoiding emissions of our products and by-products simultaneously. As for the details on how to achieve carbon neutrality, the first step consists of improving energy efficiency and replacing raw materials for our fuels with low-carbon alternatives. The second step includes utilization of natural gas and hydrogen-containing gas in iron making, the application of a new electric arc furnace, direct use of scraps from iron making, and CCUS. In the final step, we aim to develop HyREX technology based on the existing FINEX technology to ultimately realize carbon-neutral steelmaking that is built on hydrogen reduction and renewable energy.

To start, we have devised a detailed plan to achieve our target of 20% emissions reduction by 2030, both in direct emissions at operating sites, and avoided emissions from our products and by-products. By taking the national energy mix and progress toward hydrogen reduction into consideration, we will successfully execute and reconfigure our detailed plan every 10 years. As for direct emissions reduction at operating sites, we will focus on improving energy efficiency, which can be achieved through the reduction of coal use in steelmaking, maximizing the efficiency of self-generating power, and minimizing the amount of byproduct gases. We also plan to replace the raw materials with low-carbon alternatives, which include expanding the use of steel scrap. As for avoided emissions, we can increase the supply of low-carbon products, the recycling rate of by-products, and the supply of secondary battery materials.

With these efforts, we will satisfy the demands of stakeholders to maintain our competitiveness in the market and contribute to the global reduction of GHG emissions.

1) IPCC: Intergovernmental Panel on Climate Change
2) TCFD: Task Force on Climate-related Financial Disclosures
3) Avoided emissions are emissions reductions that occur outside of a product’s life cycle or value chain, but are a result of the use of that product; mentioned in GHG protocol by WRI/WBCSD and TCFD guidelines
4) CCUS: Carbon Capture, Utilization and Storage
5) Steel products that avoid emissions include high-tensile steel sheets and high-efficiency electrical steel sheets.
6) Eco-friendly use of by-products of steelmaking includes the use of slag cement, calcium silicate fertilizer, and the creation of TRITON marine reforestation.
7) Lithium, cathode/anode materials
Management

POSCO has a Carbon Neutrality Environment Group under the SHE Division’s Environmental Planning Group. The Carbon Neutral & Environmental Affairs group oversees climate change, energy, and environmental issues. The Byproduct Recycling Group deals with recycling the manufacturing by-products. The Environmental Planning Group maps out POSCO’s management strategy regarding the issues of energy and environment, and enforces the strategy by setting up a company-level response system to climate change. Specific strategies include the implementation of a company-level emissions target alongside efficient utilization of company resources and by-products while making profits. At the same time, the Steel Production & Technology Division plans and carries out the roadmap for zero-carbon technology.

In the process of enforcing the emission goals and strategic plans, the board and management committee are in charge of decision making, including the sale of May 2020 emission permits, the publication of the Climate Change Action Report, and the 2050 carbon neutrality pledge. POSCO regulates total CO2 emissions and emission units through the management of KPI, along with the CEO and business sites.

The progress is reported and managed at the quarterly Group Management Meeting chaired by the CEO, and the Business Management Assembly Meeting chaired by the head of the Steel Business Unit, which is held eight times a year. The head of the Steel Business Unit also chairs a quarterly Low-Carbon & Eco-friendly Council with the head of the Steel Production & Technology Division, the head of the SHE Division, and executives from all other divisions. The council not only monitors the progress but also discusses solutions for improvements, and follows up on current climate change issues and climate policy trends every quarter.

The Energy Department oversees CO2 reduction and energy efficiency improvement. The Environment & Byproduct Group handles the recycling of resources and is closely cooperating with the head office’s Environmental Planning Group. Under the POSCO investment management code, the Environmental Planning Group must participate in the process of investing in new business if it poses any environmental risk, such as a larger GHG footprint. While reviewing potential investments, carbon costs are taken into consideration, which will vary depending on emissions rates.

Carbon Emission

POSCO emitted 75.65 million tons of GHG in 2020, a 5.7% drop from 80.26 million tons in 2019. The main reason for this reduction was the COVID-19-induced economic downturn. CO2 emission intensity spiked in 2019 because it was affected by POSCO's decision to acquire a combined-cycle power plant in September 2019, which uses byproduct gases from the steelworks as a fuel. The acquisition was a strategic decision from the company-level, which led to the announcement of our 2050 net-zero pledge. The CO2 emissions rate of our steelworks when producing crude steel in 2020 is 2.11tCO2/t.

Carbon Management

Compliance of emissions trading scheme

Since 2006, POSCO built the GHG energy system and carried out GHG reductions systematically. Prior to the adoption of K-ETS, we reconstructed the internal system to increase emission-measurement accuracy in 2013. Through these efforts, we were able to manage the supply and demand of credits and incurred costs and profits. We are also enhancing our GHG emissions transparency by adding an emissions verification support system to better manage the MRV.

In January 2015, the domestic emission trading system was implemented. During the 2nd planning period (2018-2020), the amount of greenhouse gas emissions exceeded the allowance. Thus, the remaining allowance from the 1st period was carried over to the 2nd period. POSCO will continue its company-wide emission-reduction efforts during the 3rd planning period (2021-2025).

<table>
<thead>
<tr>
<th>Year</th>
<th>Greenhouse Gas Emissions (Scope 1 &amp; 2)</th>
<th>Energy Intensity</th>
<th>Greenhouse Gas Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>76.7 million tCO2</td>
<td>10.6</td>
<td>0.91</td>
</tr>
<tr>
<td>2018</td>
<td>75.6 million tCO2</td>
<td>10.4</td>
<td>0.92</td>
</tr>
<tr>
<td>2019</td>
<td>80.2 million tCO2</td>
<td>10.1</td>
<td>0.91</td>
</tr>
<tr>
<td>2020</td>
<td>75.1 million tCO2</td>
<td>10.4</td>
<td>0.92</td>
</tr>
</tbody>
</table>

1) Above data only takes Pohang and Gwangyang steelworks into consideration. The amount is notified by the government which reflects the impact of the acquisition of the combined power plant in September 2019 and may differ from the 2019 Corporate Citizenship Report.
2) The submitted amount was verified by a third party but the numbers may change according to the final result of the government’s suitability assessment.

Energy and Greenhouse Gas Intensity

<table>
<thead>
<tr>
<th>Year</th>
<th>Scope 1 emissions</th>
<th>Scope 2 emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1.1tCO2/1GJ</td>
<td>1.01tCO2e/1GJ</td>
</tr>
<tr>
<td>2018</td>
<td>1.1tCO2/1GJ</td>
<td>1.01tCO2e/1GJ</td>
</tr>
<tr>
<td>2019</td>
<td>0.8tCO2/1GJ</td>
<td>0.8tCO2e/1GJ</td>
</tr>
<tr>
<td>2020</td>
<td>0.5tCO2/1GJ</td>
<td>0.5tCO2e/1GJ</td>
</tr>
</tbody>
</table>

1) Coal excluded as a reducing agent from energy consumption.
POSCO 1.5°C Climate Change Scenario: Risks and Opportunities

The UN IPCC published a special report in 2018 on the impacts of global warming to a level of 1.5 °C above pre-industrial levels. 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 reshuffle our core steel business and new businesses such as secondary battery materials, and the hydrogen and LNG businesses.

Low-Carbon Strategy

POSCO’s low-carbon strategy is comprised of three key parts: Green Process, Green Product, and Green Partnership. Green Process focuses on technology development and investments to lower 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, the application of CCUS technology, and the commercialization of hydrogen-based steelmaking technology.

Green Product refers to low-carbon steel material, new materials, and by-products. POSCO is looking forward to increasing the supply of Green Products. Lastly, POSCO is going to strengthen existing Green Partnerships with our investors, customers, the government, World Steel Association (Worldsteel), and other stakeholders through enhancing our emission transparency, exercising due diligence in domestic and international carbon policymaking, and cooperating in low-carbon R&D.

<table>
<thead>
<tr>
<th>Type</th>
<th>Risk</th>
<th>Opportunity</th>
<th>Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel</td>
<td>• Increasing low-carbon alternative materials</td>
<td>• Increasing cost competitiveness from innovative low-carbon technology</td>
<td>• 30% emissions reduction by 2030, 50% by 2040</td>
</tr>
<tr>
<td></td>
<td>• Tightening regulations on carbon emissions</td>
<td>• Better quality products from high-efficiency steel</td>
<td>• Supply of high-tensile automotive steel sheets for EVs</td>
</tr>
<tr>
<td></td>
<td>• Steel plants’ more frequent exposure to natural disasters</td>
<td>• Declining demand due to lagging mileage improvements</td>
<td>• Commercialization of hydrogen-reduction-based carbon neutrality technology</td>
</tr>
<tr>
<td>Secondary Battery Material</td>
<td>• Early termination of EV subsidies</td>
<td>• Less CO2 emission than internal combustion engines</td>
<td>• Increasing the supply of high-capacity cathode-anode materials for EVs</td>
</tr>
<tr>
<td></td>
<td>• Drop in EV demand due to rising price of electricity</td>
<td>• EV steel plate-related marketing opportunity</td>
<td>• Lithium business, recycling of battery waste</td>
</tr>
<tr>
<td>Hydrogen/LNG</td>
<td>• Business restrictions due to Korea Gas Corporation’s abruptness of its monopoly power structure and renewable energy’s growing price competitiveness</td>
<td>• Increased use of hydrogen and LNG from government’s 9th Basic Plan for electricity and hydrogen</td>
<td>• Expanding LNG terminal business building infrastructure for hydrogen cars with byproduct hydrogen</td>
</tr>
<tr>
<td></td>
<td>• Profitability and safety issue of hydrogen</td>
<td>• High expandability of existing businesses (mining, terminal, electricity generation) in relation to new businesses</td>
<td>• Mass production of clean hydrogen from water electrolysis</td>
</tr>
</tbody>
</table>

1) Thirteen products, including steel sheets, wire rods, hot-rolled steel sheets, cold-rolled steel sheets, continuous galvanized steel sheets, electrolyzed steel sheets, stainless steel sheets, and PosMAC.
2) EPD certification by the Ministry of Environment focuses on requirements to systematically manage GHG emissions and energy use. We maintain this certification through annual assessments in order to meet the standards of our customers and stakeholders.
3) In 2019, POSCO became the first company in Korea to obtain EPD for its entire steel product line from the Ministry of Environment. In the same year, we also obtained “low-carbon product” certification from the Ministry of Environment for our steel plates and hot-rolled steel, a first for a steel company. We also were the first to receive an Environmental Product Declaration (EPD) certificate from UL, a global certification company, for our GIGA steel products, which is recertified every year. EDP certification for each of our products is uploaded to Steel-N.com for easy access.
4) Certification of Low Carbon Products (Phase 2) is given to products whose carbon emission is lower than the average in the same product category.
5) Certification of Low Carbon Products (Phase II) is given to products whose carbon emission is lower than the average in the same product category.
6) Certification of Low Carbon Products (Phase I) is given to products whose carbon emission is lower than the average within the same product category.
7) Acquired ISO 50001 and EDP.
8)-Americas, EMEA, and Asia.
9) Certification of Low Carbon Products (Phase II) is given to products whose carbon emission is lower than the average within the same product category.
Green Process: POSCO Carbon FLOW Technology and application

Most of POSCO’s carbon emissions come from coal, limestone, LNG, or electricity. In 2020, iron making, which uses coal, made up 82% of the total. POSCO uses diverse reduction methods to cut down the emissions rate and is developing new technologies to do so.

**Application of CO₂ reduction technologies**

- Capturing, purifying, and reusing byproduct gas from the blast furnace, FINEX, coke oven, and converter
- Recovering sensible heat by exchanging heat between red hot coke and cooling gas
- Improving coke strength and blast furnace efficiency by controlling the mixture of coal inserted into the coke oven
- Recovering sensible heat from the sintered ore cooling process
- Generating power by using the pressure of byproduct gas emitted from the blast furnace
- Recovering sensible heat from the exhaust gas of the hot blast stove
- Directly injecting coal in place of coke into the blast furnace
- Recovering sensible heat included in the gas emitted from the process
- Improving energy efficiency by injecting argon gas into the bottom of the converter
- Minimizing energy loss by reducing transport times between steel tapping and back-end processes
- Saving reheating energy through the direct insertion of hot slabs
- Recovering sensible heat included in the gas emitted from the heating furnace
- Saving heat energy during the pickling process through low-temperature operations

**Technologies in development (roadmap)**

- Fuel and material consumption reduction technology through smart blast furnace, sintering, and raw material process deviations improvement
- Coke oven and Coke Dry Quenching (CDQ) command optimization technology with smart controls
- Fuel and materials reduction technology using reduced iron in the blast furnace
- GHG emission reduction technology by cutting the amount of molten iron used in the electric furnace by 80%
- CO₂ separation and recycling technology from the leftover byproduct gases
- Technology that replaces a portion of the coal used as a blast furnace reducing agent with hydrogen in the iron ore reduction process
Green Process
Improving energy efficiency
POSCO strives to improve its energy efficiency by continuously enhancing and managing the steelmaking process and maximizing power generation. As of 2020, POSCO generates 91% of our plant’s power with just byproduct gases from steelmaking. Furthermore, we have maximized our generating power through developing a technology to monitor and predict the amount of byproduct gases produced and supplied for generation in real time. On top of these efforts, we plan to streamline inefficient outdated equipment to boost efficiency and minimize the amount of wasted byproduct gases. Our hard work didn’t go unnoticed. POSCO received the “Energy Champion” award from the Ministry of Trade, Energy and Industry, as well as the Korea Energy Agency in November 2018. Moreover, POSCO’s smart factory joined the World Economic Forum’s Global Lighthouse Network as the first-ever Korean member business, for accomplishing plant optimization through big data and AI. With our own smart factory platform “POSFRAME,” we are leading the digitalization of the steel industry. We are going to adopt the smart factory system in all our plants since it is expected to improve the quality and efficiency of the steelmaking process.

Investing and developing in low-carbon technology
In 2020, we devoted to improving 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 equipment. One example is the streamlining of our Pohang No. 1 and Gwangyang No. 1 plants. No effort has been spared in our R&D to reduce GHG emissions as we recover heat from the processes and capture CO₂ from byproduct gases.

Reducing our reliance on coal & adopting low-carbon alternatives
POSCO wants to reduce GHG emissions through the development and application of smart technology. Applying smart technology to our blast furnaces and FINEX leads to better control of condition of the furnace and this, in turn, will enable us to remedy operational deviations 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 1 and sinter 1, purchasing pellets, and installing new facilities.

Increasing the use of scrap iron
One of the best things about iron is that it is easy to sort and recycle. POSCO is working on Low Hot Metal Ratio (HMR) technology that uses inexpensive steel scrap more than hot metal. When this technology is perfected, we can lower the HMR by 70%. Naturally, with lower HMR output, we will emit less GHG gases. We plan to directly smelt steel scrap in blast furnaces using the FINEX process and are considering operating EAF, which has better steel scrap capacity.

CCUS (Carbon Capture, Utilization and Storage)
CCUS technology is an artificial method to capture GHG in the atmosphere, unlike 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 by-product gas.

We are exploring new ways to utilize the captured CO₂ as a raw material for chemical products or other alternative fuels. Once we build a safe and sufficient storage infrastructure, we can also sell the captured carbon.

Hyper BF-BOF for HyREX transition
POSCO considers its Hyper BF-BOF technology a stepping-stone technology that will lead to a stable and economical supply of renewable energy and eco-friendly hydrogen generated power. We are well on the 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. Additionally, we are searching for ways to extract and utilize hydrogen in other sources such as natural gas.
POSCO’s HyREX steel technology

HyREX steel is a revolutionary technology that dramatically reduces GHG emission through substituting coal, a reductant and heat source in the steelmaking process, with hydrogen. POSCO’s FINEX process is known to be one of the key technologies to complete hydrogen-reduction steel because the hydrogen injection and DRI manufacturing technologies that are critical in creating hydrogen-reduction steel is already used in FINEX. POSCO’s hydrogen reduction steel, HyREX technology, produces DRI in a hydrogen-based fluidized bed reactor in the existing FINEX process. It also produces steel by smelting DRI in the electrical furnace which uses 100% renewable energy.

POSCO will continue to develop the hydrogen-reduction technology by gradually increasing the hydrogen concentration in the two Pohang-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 furnaces to HyREX equipment.

For a successful HyREX transition, POSCO needs 3.7 million tons of clean hydrogen and 3.7 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. Therefore, 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 the vision and will strive to achieve carbon neutrality in the steel industry through HyREX which will be built upon successful infrastructure.

Green Energy Infrastructure

- **Water electrolysis**
- **Clean power**

HyREX Process

- **Green hydrogen**
- **Iron ore (fine ore)**
- **Hydrogen fluidized bed reactor**
- **HOT DRI**
- **Heating**
- **Electrical furnace**

Green Product

In order to achieve direct emission and byproduct reduction at operation sites through the Green Process, avoided emissions are taken into account by increasing the supply of low-carbon products and byproduct gases. Our low-carbon steel product portfolio is expanding, from high-strength steel sheets to high-efficiency electrical steel sheets that reduce power loss in motors and transformers. We are also contributing to the reduction of GHG emissions outside our production processes. 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 the effort.

POSCO is expanding the supply of lithium and cathode/anode materials, the key ingredients for EV batteries, which are leading GHG emissions reductions in the transportation sector. We are also making progress in the recovery and recycling of battery wastes. In the future, we will not only take the lead in building a hydrogen infrastructure to utilize hydrogen contained in byproduct gases at steel mills, but also actively cooperate in the process of building state-led hydrogen supply infrastructure. Our commitment to conducting business in an environmentally responsible manner through our 2050 carbon-neutrality pledge remains our priority. We will passionately participate in the government’s carbon-neutrality journey to fulfill our duty as a corporate citizen while allowing us to have an edge in the market.

High-strength automobile steel sheet / high-efficiency electric steel sheet

Ever since the government declared Carbon Neutrality 2050 in December 2020, many industries have been seeking measures to reduce GHG emissions. Particularly in the transportation sector, there is a growing need for lightweight materials since regulations on GHG emissions calculated by fuel efficiency are being imposed. POSCO is increasing the supply of GIGA-class ultra-high-strength steel sheets and, as a result, our sales of automotive steel sheets are increasing. Electric motors are used throughout all industrial sectors from transportation and construction, to home appliances and HVAC. As the share of EVs is growing in the transportation sector, the demand for high-efficiency electric motors is increasing. Accordingly, POSCO plans to increase the proportion of hyper-efficient electrical steel sheet sales. These sales are expected to cut 5.36 million tons of GHG emissions.

Granulated blast furnace slag

Granulated blast furnace slag is utilized as a substitute for cement clinker and silicate fertilizer. It has a chemical composition similar to that of cement and can be used as a substitute for cement converting it to powder. POSCO supplied 10.81 million tons of granulated blast furnace slag in 2020, eliminating 8.49 million tons of GHG emissions. Furthermore, POSCO is developing and supplying PosMent, an upgraded version of traditional slag cement. When compared to conventional slag cement, PosMent has higher slag content and comes with improved physical properties such as high compressive strength which mitigates CO₂ generation by nearly 60%. 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 byproduct of the decomposition of organic matter by microorganisms, and ultimately help lower GHG emissions.

Secondary battery materials

POSCO is focusing on materials such as lithium and anode/cathode materials for EV batteries that are more fuel-efficient than gasoline vehicles, thereby contributing to the reduction of greenhouse gases.
Green Partnership

POSCO’s carbon transparency

Since 2003, POSCO has been included in the Dow Jones Sustainability Index (DJSI) and participated in the Carbon Disclosure Project (CDP) to deliver transparent climate-related information. In 2020, we were the first Korean manufacturing company to become a TCFD Supporter and publish an annual Climate Action Report in accordance with TCFD recommendations. We also publish a corporate citizenship Report, disclosing the implementation, status, and annual performance of our GHG reduction plans.

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 EPD and low-carbon product certification, and satisfying the ISO 50001 requirements. We are continuously pursuing additional opportunities to share our progress with our stakeholder on the environmental front.

Climate change partnership (Government-Industry-Customers-Investors)

POSCO signed the Carbon Neutrality Joint Declaration 2050 at the inauguration ceremony of the Green Steel Committee1) in February 2021 along with five leading domestic steel companies. The Joint Declaration proposes numerous ways to achieve net-zero carbon. To start off, it suggests improving energy efficiency, replacing existing fuels with low-carbon fuels, increasing the recycling rate of iron scrap, transitioning towards hydrogen-reduction steelmaking technology, and developing rolled steel for transporting stored hydrogen. The Green Steel Committee is dedicated to enhancing the steel industry’s competitiveness in the future by exploring policy measures for carbon neutrality and aims to ensure a soft landing for companies that will experience drastic changes in their production structure from the government’s R&D and the building of hydrogen energy infrastructure.

POSCO is also cooperating with Worldsteel’s actions to counter climate change in the global steel industry. We have actively engaged with Worldsteel to understand the steel industry’s carbon footprint and find sustainable solutions through participating in the Worldsteel Climate Change Policy Group and Worldsteel CO2 Data Collection Project. As a result, we have been a Worldsteel Climate Action Member since its launch in 2008.

In the second half of 2021, POSCO will host the Hydrogen Reduction Steel Forum with the Technology Committee (TECO) of the World Steel Association. At the event, Worldsteel’s TECO, the International Iron and Steel Institute, the Ministry of Trade, Industry and other Energy, and domestic and international steel associations will discuss ways to facilitate technological exchange and promote joint research programs centered around hydrogen-reduction steel and low-carbon technologies.

POSCO joined the Ministry of Environment’s K-EV100 (Korean Pollution-Free Vehicle Transition)2) project in February 2021 and is actively cooperating with the Ministry. Notably, 32 internal combustion engine vehicles will be replaced with pollution-free vehicles in 2021, and about 400 vehicles will be gradually replaced and supplied by 2030.

We are also strengthening partnerships with our customers under the POSCO Auto Steel Strategy (PASS) and are engaged in initiatives like Early Vendor Involvement (EVI), where we build a foundation for cooperation in the field of eco-friendly vehicles by developing car materials for global automakers.

1) An industry, academia, and government-based consultative body that discusses and advocates for the carbon neutrality 2050 target in the steel industry
2) A project that promotes carbon neutrality in the transportation sector by switching the company-owned and leased internal combustion engine vehicles to pollution-free vehicles (EVs & hydrogen cars) by 2030
Implementation of Eco-friendly Steel Mills

POSCO has contributed to national economic growth and the fostering of export industries through the production of quality steel products. POSCO will continue to take the lead in fulfilling future sustainable management and corporate citizenship values by implementing preemptive and proactive eco-friendly steel mills.

Environmental Strategy

Environmental issues are now an essential new norm in corporate management. POSCO intends to proactively respond to rapidly changing environmental conditions and do its best in public interest activities for the development of local communities and environmental protection. POSCO first established the “Environmental Manual” in January 2010, revising it to comply with the company’s environmental management standards through the “POSCO Group Integrated Environmental and Energy Management Policy” in June 2019. In addition, when making decisions on new and mid to long-term business strategies, we carefully review and evaluate the environmental impact to minimize risks.

POSCO operates a low-carbon eco-friendly council every quarter presided over by the Head of Steelworks to examine and analyze environmental management goals and implementation progress, and reports domestic and foreign environmental trends and important issues to the CEO. In October 2020, we established a new mid-term Environment and Energy Management Strategy considering the changing conditions of major environmental issues.

POSCO Group Integrated Environmental and Energy Management Policy

POSCO Group shall implement the following matters for the realization of a sustainable low-carbon, eco-friendly economy as a Corporate Citizenship Building a Better Future Together.

- We shall establish an integrated environment and energy management system and comply with relevant regulations in accordance with ISO 14001/50001.
- We shall establish goals for our environment and energy management activities and provide necessary resources for achieving them to continuously improve the environmental and energy integration system, as well as performance.
- We shall reduce greenhouse gas emissions and minimize impact on climate change by expanding clean energy use and introducing low-carbon processes and technologies.
- We shall ensure that the environmental management system is maintained in all facilities, and production sites.
- We shall continuously improve the environmental and energy integration system, as well as performance.
- We shall improve the management of environment and energy management activities and report to top management.

Environmental Organization

POSCO establishes a company-wide environmental strategy and inspects the results through the Carbon Neutral Environment Strategy, the By-Product Recycling Group, and the Eco-Friendly Consulting Support Group under the Environmental Planning Office of the head office. In addition, Pohang Works and Gwangyang Works’ Environmental and By-Product Recycling Group, the By-Product Consulting Support Group, and the Eco-friendly Consulting Support Group under the Steel Business Unit (President) of the Steelworks, are conducting on-site environmental improvement activities to minimize pollutants generated in the production process.

Environmental Investment

POSCO has spent about 10% of its total investment every year on environmental investment, and is expanding this amount to meet public demands for fine dust reduction despite difficult management conditions. In particular, in order to greatly improve the environment around the steelworks, we will push for an environmental improvement investment project worth about 2.4 trillion KRW from 2017 to 2024. We have completed about 1.2 trillion KRW of the investment in 2020 and plan to continue to invest in the environment as planned.

Environmental Investment Costs

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1.2 trillion KRW</td>
</tr>
<tr>
<td>2020</td>
<td>2.4 trillion KRW</td>
</tr>
</tbody>
</table>

Environmental Management Certification

Since being certified by the international environmental management standard of ISO 14001 in 1996, POSCO has been reviewed by an external verification every year and has since secured its reliability through recertification. We plant to systematically manage steelworks environmental information through our in-house environmental management system known as the POSCO Environmental Management System (POEMS), and establish an integrated environmental management system to further improve environmental information management consistency. Major air and water pollutants generated by the steelworks are automatically measured through the Tele Metering System (TMS). Measured results are sent to government agencies in real time to increase management transparency.
Air Pollution Management

POSCO strives to improve air quality by reducing air pollutants such as fine dust.

We issue performance reports regularly to meet emission intensity goals set as our environmental performance indicators. In the mid to long-term, we aim to gradually reduce steel mill air pollution emissions (sulfur oxides, nitrogen oxides, and dust) from 66,000 tons in 2020 to 49,000 tons by 2024.

POSCO is promoting large-scale environmental improvement investments to reduce air pollution emissions. We are especially focusing on expanding facilities to reduce nitrogen oxides. In addition, by installing Selective Catalytic Reduction (SCR) facilities at sinter plants and byproduct gas generators, we are dramatically reducing nitrogen oxides produced from combustion. Our other efforts and investments to improve air quality and the environment include shutting down six obsolete power generation facilities and replacing them with new equipment.

POSCO will also gradually expand silo installations to reduce scattering dust in steel yards. As of 2020, a total of 41 silos were installed at Pohang and Gwangyang Works, which can store up to 1.72 million tons of coal and subsidiary materials.

By expanding silo facilities, POSCO will improve raw material management efficiency and drastically reduce scattering dust generated during processing. We expect our efforts to improve the environment for local residents.

Moreover, we are further strengthening internal and external monitoring of sites to reduce fine dust. In order to closely measure the air environment of steelworks and surrounding areas, we are increasing automatic measuring devices (TMS) installations and operating an environmental monitoring center 24/7 to manage the local environment. We also have a mobile environment surveillance system that can promptly take action when vulnerable or urgent points are detected in the environment. Air quality measuring devices installed in areas around our steelworks transparently disclose environmental information such as ultrafine dust, SOx, and NOx intensity to local residents through electronic boards.

Byproduct Management

POSCO contributes to a resource recycling society by recycling by-products generated by steel mills as much as possible. In particular, we manage our "byproduct recycling rate" as a key performance indicator (KPI). We continue to find new demand sources and develop resource conversion technologies for by-products that cannot be recycled, and are incinerated or landfilled.

Steel production generates a range of by-products. Slag accounts for about 80% of the total byproduct generation, and is largely divided into blast-furnace slag and steel slag. Blast-furnace slag is a rock-based material left after producing molten iron in the blast furnace. When the molten metal cools in high-pressured water, sand-like granulated blast-furnace slag is formed. Most of granulated blast-furnace slag is recycled as cement clinker substitute and calcium silicate fertilizer. Granulated slag used in cement manufacturing is recognized as an eco-friendly material that can reduce greenhouse gas emissions when used as cement. By recycling this as raw material for plants, POSCO is greatly contributing to its high value-added activities as well as improving the efficiency of resources.

Rice grown with our fertilizers has improved yields and rates excellent in taste and quality. Calcium silicate fertilizers are valued as Green Carbon fertilizers for reducing greenhouse gas emissions. Rice fields sprayed with calcium silicate fertilizers also have the effect of reducing methane generation by 15-20%.

By-products such as dust and sludge from operating environmental facilities like dust collectors and water treatment facilities, or mill scales of iron powder from the rolling process, have high concentrations of iron. By recycling this as raw material for plants, POSCO is greatly contributing to its high value-added activities as well as improving the efficiency of resources.
Water Management

As the importance of water resource management increases, POSCO promotes the optimization of water management and expansion of recycling. We define and closely manage the following as the three key areas of water management: reduction of surface water usage, effluent standard control, and increased wastewater recycling.

Since 2015, Pohang Works has been reclaiming the wastewater of the sewage treatment plant in Pohang with the Reverse Osmosis (R/O) method and has used 80,000 tons of treated water a day to save water previously received from dams. In order to secure stable water in the long-term for the expansion of new factories, Gwangyang Works installed a seawater desalination facility that uses 16,000 tons of water per day for industrial purposes. As a result, the steelworks replaced about 30% of its use of surface water in 2020, and contributed greatly to resolving water shortage in the community. POSCO strictly manages effluent standards to minimize the impact on the water quality of the area around the steelworks. In particular, wastewater and cooling water are collected through independent drainage systems. After a physical and chemical primary treatment, wastewater containing organic matter is treated through a separate biological secondary treatment. The primary and secondary treated wastewater is discharged from the final wastewater facility after a third treatment.

POSCO aims to minimize the impact on water quality by setting the emission concentration of major pollutants of final effluents such as COD and T-N at 20% to 80% compared to the legal standard. In particular, low-concentrated chlorine ion wastewater generated from the rolling mill is recycled into industrial water after transportation and treatment through separate pipes. In addition, cooling water is collected and treated at the rainwater processing facility to be recycled into sprinkling water for roads. POSCO has participated in the CDP Water Disclosure since 2016 and transparently discloses all data to stakeholders.

Chemical Substances Management

POSCO focuses on preemptive prevention activities to create a workplace that is safe from chemical accidents. First, a chemical distribution management system is established to overlook the handling status (warehouse/inventory use) of all chemicals brought into the steelworks in real time. In addition, the chemical-handling facilities are equipped with leak-detection systems to monitor for leaks at all times. In line with the government’s tightening of chemical regulations, we have also established a new Material Safety Data Sheet (MSDS) System that can systematically aggregate relevant information from the early stages of the contract for bidding for chemicals. In addition, products manufactured by POSCO are issued environmental hazard test certificates by material type and these are transparently provided through our e-Sales electronic trading system.

The steelworks have a Safety and Disaster Prevention Organization that has chemical accident prevention specialists and special disaster prevention vehicles to respond quickly to unexpected chemical accidents. Specifically, we are improving our ability to respond to accidents by conducting public-private partnered disaster prevention drills and factory-based emergency response drills for chemical accidents more than once a year. We are also working hard to improve our ability to respond to accidents by providing collective training to employees who handle chemicals.
Environmental Training

POSCO runs various and substantial environmental education programs. We provide practical environmental videos using UCCs that share in-house expertise. We also enhance employees’ understanding of environmental affairs with our in-house bulletin board “Environmental Alert” campaign. We are further improving our environmental management capabilities by providing customized in-depth training to supervisors such as plant leaders.

Environmental Training Performance (as of 2020)

<table>
<thead>
<tr>
<th>Training Course</th>
<th>Target</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 14001 Internal Auditor Training</td>
<td>Worksite Representative</td>
<td>75 participants (Pohang 47, Gwangyang 28)</td>
</tr>
<tr>
<td>Information Exchange Meeting for Environmental Executives in Group Affiliates</td>
<td>Executives of 12 Group Affiliates</td>
<td>Semi-annual meetings (Total of 2 meetings)</td>
</tr>
<tr>
<td>In-depth Environmental Training for Supervisors</td>
<td>Field Supervisor</td>
<td>12 participants (Pohang 12, Gwangyang 6)</td>
</tr>
<tr>
<td>Collective Training on Environmental Regulations &amp; Trends</td>
<td>Environmental Representative</td>
<td>Monthly meetings (Total of 12 meetings)</td>
</tr>
<tr>
<td>In-house Postings on Environmental Improvement Examples and Issues</td>
<td>General Employees</td>
<td>Year-round</td>
</tr>
<tr>
<td>Environmental Training for Partner Companies</td>
<td>Partner Companies</td>
<td>Year-round</td>
</tr>
</tbody>
</table>

Stakeholder Communication

POSCO transparently and comprehensively discloses the results of its environmental management to employees, local communities, NGOs, and other stakeholders. Particularly, both steelworks continue to communicate with local communities, each serving as a member of the Pohang City Council for Sustainable Development and the Gwangyang City Council for Sustainable Environment. In recent years, an industry-academic environmental consultative body collaborating with research institutes has been launched to seek roles suitable with environmental changes.

POSCO operates an Environmental Improvement Council with partners. We also signed an MOU with local small and medium-sized enterprises to support environmental improvement activities through expert consulting.

POSCO is working with the Steel Association to produce educational cartoons and elementary school supplementary textbooks for kids, and distribute them to educational facilities and public libraries. We want to help children easily approach and learn about the eco-friendly material, iron.

CASE

Eco-friendly Consulting Support Group

On February 1, 2021, POSCO launched a new Eco-friendly Consulting Support Group. Our Environment, Equipment, and Purchasing Department, along with the Pohang Research Institute of Industrial Science and Technology (RIST), are working together to identify the causes of environmental problems and present solutions. With RIST, we cooperate with Pohang City on comprehensive environmental improvement activities.

The top priority of the Eco-friendly Consulting Support Group is to solve the odor problem within the Pohang Steel Industrial Complex. Until now, Pohang City has been making their own improvement efforts by supporting investment in waste gas incineration facilities at major odor-emitting sites of the Steel Industrial Complex. However, it has been difficult to solve this fundamental problem. Therefore, the support group is making efforts to actively resolve the issue by utilizing the environmental improvement technology and expertise gained from steelworks operations.

The first phase of the support group’s odor-management system is to manage the seven POSCO-related partners and suppliers out of the 14 major odor-emitting sites on using low-odor raw materials, reinforcing material and product management, and improving simple maintenance (sealing). In the second phase, we will support the environmental improvement of private facilities managed by Pohang City in waste disposal, landfill, and incineration. In addition, we plan to alleviate the odor problem in Pohang if any additional sources of pollution are discovered in Pohang City.

In the future, we would like to meet with various stakeholders, including Gwangyang City Hall, local residents, and companies in the Steel Industrial Complex. We will listen to the voices on environmental issues in the Gwangyang community and actively take the lead in improvement activities.
Biodiversity

POSCO reflects biodiversity clauses in its Code of Ethics Practice Guidelines to encourage all executives and employees to recognize its importance and to take action accordingly. Biodiversity activities are especially focused on environmental improvement, climate change response, and ecological restoration activities.

POSCO is also taking the lead in environmental cleanup activities to preserve the marine ecosystem. The Clean Ocean Volunteer Group is a marine cleanup organization that depends on the voluntary participation of employees and is conducting large-scale cleanup activities in both the public and private sectors. Since 2009, we have collected a total of 1,853 tons of sea waste through 629 marine cleanup activities, and in recognition of our efforts, we were awarded with a commendation by the Minister of Oceans and Fisheries in 2020. In addition, we are striving to preserve the marine ecosystem by communicating with local environmental groups by securing future fishery resources and regularly conducting coastal cleanup activities.

POSCO is strengthening its monitoring activities to improve the local environment by periodically investigating pollution levels of marine water quality and low-nitrogen soil around steel mills. In particular, when issues such as facility expansions occur, we are minimizing by-products by conducting environmental surveys with specialized institutions on the impact on biodiversity in surrounding areas. POSCO uses slag to make the TRITON reef, which is installed in the ocean to create marine forests. TRITON reefs are high in iron and minerals, which greatly help restore the marine ecosystem by promoting the growth of marine plankton and the attachment of algae spores. POSCO has installed a total of 7,654 TRITON reefs in domestic waters since 2010, including 100 TRITON reefs and 750 TRITON blocks in Ulleungdo Island in May 2020 to create a 0.4ha marine forest. POSCO’s eco-friendly characteristics of TRITON reef and marine forest development activities have been introduced to major domestic and foreign institutions such as Boston College and are receiving great responses as model cases for corporate citizenship.

In recognition of its biodiversity conservation activities, POSCO was selected as the best company in the “Sustainability” category at the 2020 Steelie Awards of the World Steel Association.

POSCO Biodiversity Policy – Guidelines for Practice of Ethical Norms

Environmental Protection and Ecosystem Conservation

Establishing an Environmental Management System
- We shall effectively operate the environmental management system to evaluate the impact and risks of corporate activities on the environment and systematically manage and analyze environmental management performance.
- We shall share performance outcomes and issues with various stakeholders and carry out environmental conservation activities together.
- We shall form a consensus with trading companies on how environmental protection is the basic social responsibility of companies and support them to comply with laws and regulations on environmental protection.
- We will support trading companies to protect public health and safety in the production process and provision of services while minimizing the negative effects on natural resources and the local environment.

Compliance with Environmental Laws and Improvement on Environmental Impact
- We shall improve environmental impact in the entire process of developing, producing, and using products, in compliance with environmental laws and regulations.
- We shall minimize emissions of pollutants by introducing eco-friendly production processes and apply optimal technology to prevent environmental pollution.

Responding to Climate Change
- We shall make efforts to reduce the use of fossil fuels and raw materials and reduce greenhouse gas emissions by improving energy efficiency.
- We shall strengthen our competitive edge by developing low-carbon innovative technologies.

Protection of the Environment and Ecosystem
- We shall make efforts to restore the natural ecosystem and preserve biodiversity by efficiently utilizing natural resources, by-products, etc.

A Case of Marine Forest Formation Using TRITON Reef

"Selected as 2020 Best Company in Sustainability Management (World Steel Association)"
Life Cycle of Iron

In the low-carbon circular economy era, it is becoming more and more important to use environmentally friendly materials. Corporate activities are also viewed in the same light on its products’ life cycle, from production to use and disposal. Steel products are getting recognized as eco-friendly materials that can promote low-carbon businesses due to their high recycling rates in the disposal process, after being used in automobiles, shipbuilding, and construction. Accordingly, POSCO actively supports customers’ low-carbon conversion in selected final customer products in the fields of renewable energy and eco-friendly cars and ships.

1 PRODUCTION STAGE

By-products generated from producing steel products such as scraps, slag, and byproduct gases can be recycled as raw materials for steel or other production processes. Recycled by-products can be used as effective resources inside and outside the company (such as construction, agriculture, marine, power generation, and battery industries), thereby reducing environmental waste.

2 MANUFACTURING STAGE

High-strength steel allows customers to manufacture stronger and lighter products with less material consumption. Ultra-high tensile strength steel plates contribute to lowering energy/resource usage in the automotive production process.

3 USE STAGE

- **Lightweight Steel** GIGA Steel, POSCO’s the state-of-the-art steel material, is excellent in terms of safety along with its high strength. It can also improve fuel efficiency* by lowering the weight of the vehicle and reducing greenhouse gas emissions from driving the vehicle.

  * According to the Vehicle Technologies Office and The Department of Energy, if the vehicle weight is reduced by 10%, there is a 5%-8% fuel efficiency improvement which can reduce carbon dioxide emissions.

- **Extended Service Life of Steel** The use of highly corrosion-resistant steel will prolong the use of offshore structures and floating solar energy in corrosive water environments. It can contribute to minimizing the use of resources and pollution emissions from rebuilding structures.

4 RECYCLING STAGE

- **Reuse** POSCO A&C steel structure mobile modular is a mobile unit that is manufactured at the plant and assembled on site. After installation, it can be moved to another place and reused. In fact, the mobile modular construction method was applied to the 2018 Pyeongchang Olympics’ Media Residence.

- **Recycling** Iron is easy to recover by magnetic force due to its unique properties of attaching to magnets. It has an excellent recycling rate* as it can be recycled indefinitely because of its low content of impurities.

  *Recycling Rate: Construction 85%, Automobile 90%, Machinery 90%, Home Appliances 50% (Source: World Steel Association, Steel FACTS)
Accelerating Digital Transformation with the Lighthouse Factory

POSCO, which was selected as the world’s first “lighthouse factory” at the World Economic Forum in July 2019, is expanding its smartness to the Value Chain based on the results of smart technology development for unit processes and facilities and is pushing for platform-based hyperconnectivity from customer orders to delivery. This improves the efficiency of the entire process and creates a safe and healthy workplace, which not only creates value for customers but also leads to the establishment of sustainable, low-carbon, eco-friendly steel mills.

Strengthening Competitiveness through Smart Technology

Contributing to the development of the fourth industrial revolution in Korea

By utilizing POSCO’s experience and know-how in building smart factories, we support the smartization of small and medium-sized Korean companies and spread efficient methods and examples to domestic companies.

Environment — Improving power generation efficiency and atmospheric environment

We are improving power generation efficiency by optimizing combustion control of power plants that utilize non-ferrous gas from steel plants and detecting equipment abnormalities in the early stages. In addition, we have developed a real-time automatic combustion control model through furnace operation data analysis to reduce emissions of harmful substances from environmental pollution.

Build a mutual smart factory with customers

Using PosFrame, we share material manufacturing history data and customer processing history data, and develop AI control technologies to improve productivity and quality.

Safety — Introduction of wearable devices and robots to ensure the safety of workers

In July 2020, a smartwatch was provided to workers at risk locations to detect abnormal conditions such as health conditions, falls, or fire in real time to be able to respond immediately in case of danger. In addition, we introduced multi-joint robots in high-temperature and fire-risk areas, and installed intelligent CCTV for image recognition-based fire monitoring.

Contributing to the development of the fourth industrial revolution in Korea

By utilizing POSCO’s experience and know-how in building smart factories, we support the smartization of small and medium-sized Korean companies and spread efficient methods and examples to domestic companies.

Environment — Improving power generation efficiency and atmospheric environment

We are improving power generation efficiency by optimizing combustion control of power plants that utilize non-ferrous gas from steel plants and detecting equipment abnormalities in the early stages. In addition, we have developed a real-time automatic combustion control model through furnace operation data analysis to reduce emissions of harmful substances from environmental pollution.

Build a mutual smart factory with customers

Using PosFrame, we share material manufacturing history data and customer processing history data, and develop AI control technologies to improve productivity and quality.

Safety — Introduction of wearable devices and robots to ensure the safety of workers

In July 2020, a smartwatch was provided to workers at risk locations to detect abnormal conditions such as health conditions, falls, or fire in real time to be able to respond immediately in case of danger. In addition, we introduced multi-joint robots in high-temperature and fire-risk areas, and installed intelligent CCTV for image recognition-based fire monitoring.
BUSINESS

Business Competitiveness
Secondary Battery Material

POSCO is preparing for the era of eco-friendly mobility, focusing on electric vehicles. As a growth engine of the group, we have established a strategy promoting secondary battery material businesses and are continuing to invest in both raw material and materials businesses.

In 2020, we successfully completed the validation of the Argentine Lithium Brine Demonstration Plant. In addition, we started investing in large-scale cathode materials facilities with an annual capacity of 60,000 tons per year, becoming the first to enter the artificial graphite anode material business in Korea. POSCO Chemical, a subsidiary specializing in secondary battery materials, has successfully raised 1.3 trillion KRW through a paid-in capital increase to successfully raise the financial resources necessary for full-scale business expansion.

Raw Material Business: Lithium
2030 Objective
Lithium Production System
220,000 tons built

POSCO is pushing for the lithium extraction business by securing lithium raw materials of high-quality brine (Argentina) and ore (Pilibara Minerals, Australia). A re-evaluation of the Argentine salt lake "Ombre Muerto" which POSCO acquired in 2018, confirmed that its reserves were 13.5 million tons, six times more than the 2.2 million tons estimated at the time of the acquisition. This is enough to produce 370 million electric vehicles (based on 55.7 kWh of battery capacity per unit).

POSCO also successfully completed the construction of a demo plant based on lithium salt solution in Argentina as soon as it secured the raw materials, completing the verification operation. In addition, Gwangyang Demo Plant uses ore raw materials to produce lithium hydroxide and lithium carbonate. In 2021, we plan to start construction of commercial plants in Gwangyang and Argentina and build a 220,000 ton lithium production system by 2030. We are also making various efforts for a stable supply and demand on raw materials such as developing high-purity nickel smelting processes based on our iron production and impurity-removal technology, entering the battery-recycling business that extracts nickel and lithium from waste batteries, and investing in overseas graphite mines.

Cathode Material Business
2030 Objective
Global Production Capacity of Cathode Material
400,000 tons built

With the rapid growth of the global electric vehicle industry, the cathode material market is also on the rise. Market analysts predict that the demand for cathode materials will rise from about 440,000 tons in 2020 to more than 2 million tons in 2030. Cathode materials used in electric vehicles are products with high nickel content. Currently, products with a nickel content of 50 to 60% are the mainstream. POSCO Chemical succeeded in developing a cathode material product containing more than 80% nickel to meet the market demand for high-capacity cathode materials such as extended mileage and high-speed charging. In addition, we are actively responding to demand by expanding the mass production plant of high-capacity cathode material with a capacity of 60,000 tons in 2020. Domestic cathode material production capacity, which is currently 40,000 tons, is expected to increase to 100,000 tons by 2023. POSCO is spurring new orders and customer development based on the expansion of mass production, and plans to expand its global production capacity to 400,000 tons by 2030, mainly in areas where large automakers and battery companies are concentrated.

Anode Material Business
2030 Objective
Production Capacity of Anode Material
260,000 tons built

POSCO Chemical is the only domestic supplier of both cathode and anode materials. Anode materials are vital for secondary batteries. Although POSCO Chemical was a latecomer compared to Japan and China when it entered the natural graphite cathode material business in 2010, it secured cathode material performance in a short period of time and achieved automation and process improvement. In particular, by establishing a domestic mass production system, we are contributing to the localization of anode materials and strengthening the competitiveness of the Korean battery industry. POSCO Chemical is stably operating a natural graphite anode material plant with an annual output of 44,000 tons in 2020. Moreover, we are the first to enter the artificial graphite anode material business in Korea, by starting construction of a 16,000 ton plant in Pohang. Artificial graphite anode material has a uniform and stable material structure by increasing crystallinity at high temperatures, enabling long life and rapid charging, which is essential for electric vehicle batteries. POSCO Chemical is responding to various demands from global customers by establishing a mass production system for natural and artificial graphite. In the future, we plan to increase our production capacity to 260,000 tons by 2030 through continuous expansion of facilities.
World-Class Premium Products
POSCO has introduced the concept of World Premium (WP) and is pursuing a marketing strategy centered on high value-added products. We are joining POSCO’s first-ever developed World First (WF) technology and World’s Best (WB) technology to form World Top Premium (WTP) that focuses on strengthening our premium marketing. In 2020, we are developing products that are likely to grow in the future by segmenting our marketing strategy into Future (WTP-F) and Candidate (WTP-C), which takes into account the life cycle, technology completeness, and profitability of our products. In 2020, POSCO’s WTP product sales were 8.74 million tons and the WTP product sales ratio was 25.5%, which is high considering the unprecedented decline in industry demand due to COVID-19.

Customer Satisfaction Survey
POSCO is conducting customer satisfaction surveys with external research institutes to listen to customers’ opinions on products and services. In 2021, we are planning to proactively respond to the changing market environment by adding changes in customer requirements and ESG questions before and after COVID-19.

Fostering an eco-friendly industrial eco-system through customer cooperation
POSCO is focusing its marketing capabilities on the eco-friendly industry market. In particular, 11 major eco-friendly customer products, including solar energy structures, wind turbine towers, and eco-friendly car driving motors, are selected to reduce harmful substances, creating a platform for related departments and customers to promote comprehensive cooperation. Through various support activities such as joint technology development, co-marketing of PTY orders, and regular consultative groups, 530,000 tons of sales were secured (144% compared to target and 171% compared to the previous year).

Customer Satisfaction Survey
POSCO is conducting customer satisfaction surveys with external research institutes to listen to customers’ opinions on products and services. In 2021, we are planning to proactively respond to the changing market environment by adding changes in customer requirements and ESG questions before and after COVID-19.

WTP Product Sales and Sales Ratio (2014~2021)

<table>
<thead>
<tr>
<th>Year</th>
<th>WTP Sales (1000 tons)</th>
<th>WTP Sales Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>7,051</td>
<td>22.3</td>
</tr>
<tr>
<td>2015</td>
<td>7,329</td>
<td>22.1</td>
</tr>
<tr>
<td>2016</td>
<td>9,213</td>
<td>27.2</td>
</tr>
<tr>
<td>2017</td>
<td>9,877</td>
<td>30.4</td>
</tr>
<tr>
<td>2018</td>
<td>9,612</td>
<td>28.8</td>
</tr>
<tr>
<td>2019</td>
<td>10,114</td>
<td>29.7</td>
</tr>
<tr>
<td>2020</td>
<td>8,739</td>
<td>25.5</td>
</tr>
<tr>
<td>2021</td>
<td>9,300 (Plan)</td>
<td>26.3</td>
</tr>
</tbody>
</table>
Energy  Eco-friendly Solar Structure Steel, PosMAC
PosMAC is a representative World Top Premium (WTP) product developed by POSCO’s unique technology. It is a high-end steel plate coated with zinc-magnesium-aluminum (Zn-Mg-Al) 3-way alloy plated on top of steel. PosMAC has the strength of preventing surface corrosion and increasing corrosion resistance of cutting surfaces by forming a film-like corrosion product caused by oxidation of the three-way plated layer. For solar power structures, where corrosion resistance determines life span, applying PosMAC, which is up to five times more resistant to corrosion than ordinary zinc-plated products, can ensure a longer life cycle from facility manufacture to use. In December 2020, POSCO began working with the Australian raw material supplier Fortescue Metal Group (FMG) to promote a green hydrogen business utilizing renewable energy. We plan to supply POSCO’s premium steel, PosMAC, to eco-friendly power generation facilities such as solar and wind power.

Shipbuilding  STS Steel for Eco-friendly LNG Storage Tanks
POSCO contributes to expanding the base of LNG use by developing and supplying STS steel used for liquefied natural gas (LNG) carriers, an eco-friendly fuel. POSCO's quality is recognized to the extent that POSCO products are supplied to most LNG carriers using STS steel. Recently, we are diversifying our markets with onshore storage tanks and fuel tanks for LNG propulsion ships.

Car  Eco-friendly GIGA Steel
In line with the smart car era, POSCO is taking the lead in developing and producing next-generation automotive steel sheets that dramatically reduces the weight of cars. GIGA steel is a steel plate that can hold out 100 kg of weight per 1 mm² area. It is a high-tech material that can withstand the weight of 10 tons or more with the size of a 10 KRW coin. It is stronger and lighter than competing materials such as aluminum and carbon fiber reinforced plastic (CFRP), but is 3.5 times less expensive price wise and 2.1 times less expensive to process than aluminum, reducing production costs. In particular, it is gaining more attention as an eco-friendly product that reduces accumulated CO₂ emissions of automobiles by about 10% compared to the previous generation. Types of GIGA Steel currently produced by POSCO are XF steel, DP steel, TRIP steel, CP steel, TWIP steel, MART steel, and HPF steel.

Home Appliances  Steel that drives innovation in the home appliance industry, Hyper NO
POSCO is working on developing and producing Hyper NO* steel that reduces electricity and greenhouse gases. POSCO Hyper NO reduces energy loss by 30% and increases motor efficiency by more than 10% compared to conventional electric steel plates. (It develops a “self-bonding” solution that automatically tightens the motor core with coating rather than welding). If the compressors of the energy-efficiency class 2-5 refrigerators sold in Korea are replaced with high-efficiency compressors made of POSCO Hyper NO, it is expected to reduce 7.1 GWh of electricity and 3,300 tons of greenhouse gases annually.

* Hyper NO: Core material for motors in premium home appliances that require high efficiency, such as refrigerators and vacuum cleaners

Shipbuilding  Cryogenic High-Manganese Steel for Eco-friendly LNG Storage
Cryogenic high-manganese steel can withstand temperatures of -196°C, making it suitable for storing and transporting LNG. POSCO provides solutions for high-manganese steel fuel tank with prepaid certification of new materials and revision of international design codes. POSCO applied its cryogenic high-manganese steel fuel tank the world’s largest 50,000 ton LNG bulk carrier, Green Iris. We look forward to increasing demand for high-manganese steel for LNG-powered ships and LNG tanks in the future.

Annual Sales for Solar Structures  (Unit: one thousand tons)

<table>
<thead>
<tr>
<th>Year</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales Volume for Solar Structures</td>
<td>168</td>
<td>236</td>
<td>243</td>
</tr>
<tr>
<td>PosMAC 3.0 Sales</td>
<td>288</td>
<td>361</td>
<td>398</td>
</tr>
</tbody>
</table>

Applications of POSCO PosMAC Photovoltaic Structures

Application Example of TRIP Steel

Application Example of TWIP Steel

Motor core with POSCO self-bonding technology applied (above) Premium refrigerator with POSCO Hyper NO (below)
Eco-friendly Industries, the Future Flagship Market

POSCO is dominating the future growth market by broadly expanding the target of eco-friendly products beyond the 11 major eco-friendly customer product platforms. In order to proactively respond to market needs, we have expanded and reorganized a dedicated eco-friendly vehicle organization within the marketing organization. In addition, six future eco-friendly markets (eco-friendly cars, lightweight car bodies, wind power, solar energy, LNG, hydrogen) and 22 detailed items were selected to segment and advance the necessary target markets. We discovered products from frontline sales that can be commercialized for the segmented target market and established a mid-term product development roadmap to connect the process from market demand to development. POSCO plans to expand its sales target of eco-friendly products to 2.7 million tons in 2021 and focus on developing related steel materials and solutions. We also want to actively contribute to achieve the 2050 carbon-neutrality goal by continuing our mid to long-term eco-friendly marketing strategy.

Target Sales Volume of Eco-friendly Products

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2021 (Plan)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.4 million tons</td>
<td>2.7 million tons</td>
</tr>
</tbody>
</table>

Achievement Objective: 12.5% ↑

Launch of Integrated Eco-friendly Car Brand ‘e Autopos’

POSCO aims to lead the market by launching an eco-friendly car brand “e Autopos”, setting global eco-friendly car development trends and creating marketing synergy at group-level. e Autopos major products include high-tensile steel plates for body/chassis, exclusive steel materials for battery packs, energy-efficient steel plates for driving motors, metal separation plates for hydrogen electric vehicles, and positive/negative electrodes for secondary battery materials. In the future, we plan to combine the group capabilities of POSCO International, POSCO Chemical, and POSCO SPS to provide steel material products for eco-friendly vehicles, secondary batteries, and customized solution packages to customers.

POSCO EV Concept

e Autopos: An abbreviated compound word of the eco-friendly, 31.3% electric Automotive solution of POSCO. Contains meanings of Eco-friendly/ Collaborative synergy/ Future-oriented innovation.

Eco-friendly Premium Construction Steel Brand “INNOVILT”

POSCO launched the premium construction steel brand INNOVILT in November 2019. Through four internal and external expert brand committees, we selected 102 products from 66 companies as “INNOVILT-certified” products. INNOVILT-certified products range from structural steel materials that become the framework of buildings to interior materials that are easily accessible to ordinary consumers. More than half of certified products are commercialized through joint development with POSCO. In fact, POSCO is focusing not only on finding products, but also on joint marketing and promotional activities so that selected products can be actively sold in the market. In addition, the “INNOVILT Council with Customers” is held as an opportunity for alliance companies that produce certified products to meet with general construction companies and designers in person. At the same time, we are diversifying our business channels through business cooperation with major construction companies in Korea. POSCO is leading the development of competitiveness by providing additional R&D support for products that have not been selected as INNOVILT-certified for continuous development of steel products for construction. Using beyond platform business with customers, POSCO strives to develop new renewable, low-carbon, and eco-friendly steel products that meet market needs. Along with our customers, we are strengthening our eco-friendly innovative brand image with high-end steel ForceMac-based products (solar energy structures, guard rails, external panels, etc.) and high-strength hot-rolled products (architectural steel pipes, steel pipe piles, scaffolding systems, etc.). INNOVILT products were even placed throughout The Sharp Gallery, which opened in April. There, visitors could experience the aesthetic and quality of premium steel materials in a home-like environment. POSCO hopes to enhance the understanding of INNOVILT and further strengthen its brand through a variety of media and formats to the general public. We will continue to work with our customers to focus on developing eco-friendly innovative products and solutions.
Why Does It Matter?
As the significance of ESG issues becomes critical, the range and intensity of supply chain management also increase. In the steelmaking industry, the management of ESG in relation to carbon and fine dust emissions is required for the entire procedure from mining and procuring to the transporting raw materials to worksites. Notably, efforts must be made to find solutions to social problems that are difficult to resolve by any one body. For example, new methods need to be sought through the investment of POSCO’s resources and capabilities in the areas of biodiversity maintenance and low birth rates.

How Do WeRespond?
From the second half of 2020 to the first quarter of 2021, POSCO reorganized the procurement and management system around ESG. Thus, a management system for the entire process from raw material procurement to equipment and materials purchase was set up, which will lead to full-scale realization of the ESG supply chain management system and construction of an ESG ecosystem in 2021. In addition, through its TRITON Ocean Forest project, POSCO contributes to the preservation of marine life and the biosphere off the coasts near the steel mills. Furthermore, a work-from-home system during parental leave was introduced to guarantee a business environment in which the employees’ time for career and family can coexist.
Sustainable Supply Chain

POSCO strives to establish a sustainable supply chain based on our Corporate Citizenship management philosophy. For this, the practice of fair and transparent ethics management, the realization of ESG purchases, strengthening the supply chain, and the enhancement of purchase competitiveness were selected as the four main strategies of supply chain management. In order to materialize the expansion of eco-friendly and preferential purchases from socially responsible companies, responsible supply chain management and the Go Extra Mile (GEM) Matching Fund are now underway, in addition to training and consulting support to strengthen the ESG capacity of small and medium suppliers.

Four Strategies of Supply Chain Management

<table>
<thead>
<tr>
<th>Fair, Transparent and Ethical-based Management</th>
<th>Realization of ESG Purchases</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Fair and transparent transactions</td>
<td>• Expansion of eco-friendly purchases</td>
</tr>
<tr>
<td>• Disclosure of transaction information</td>
<td>• Preferential treatment for socially responsible companies</td>
</tr>
<tr>
<td></td>
<td>• Reinforcement of responsible minerals management</td>
</tr>
<tr>
<td></td>
<td>• GEM Matching Fund</td>
</tr>
</tbody>
</table>


Strengthening the Supply Chain

POSCO, which declared corporate citizenship as our management philosophy, will set up an eco-friendly operational process and lead the way in making sustainable purchases by exclusively purchasing through socially responsible suppliers.

Fair, Transparent, and Ethical Management

Fair, transparent, and ethical management are the core values of the Corporate citizenship management philosophy. At POSCO, we strive to respect our stakeholders' opinions by keeping an open mind. For suppliers who wish to sell to POSCO, we provide the opportunity to register in order to ensure fair purchases (disclosure of transaction information, expansion of competitive purchase opportunities, etc.), with 100% disclosure of sourcing group information. Moreover, to prevent unfair internal trade, an internal transaction committee ensures fair purchases at all times.

Realization of ESG Purchases

POSCO leads the way in carbon neutrality through eco-friendly purchases, which are defined from a 3R (Reduce, Reuse, Recycle) viewpoint. The “Green Purchasing” method is actively adopted to utilize steelmaking by-products and waste, procure eco-friendly substitute materials, and widen the use of ferrous scrap for carbon reduction. In addition, POSCO is working with both domestic and foreign ferrous scrap suppliers in the collection process to build a virtuous cycle.

POSCO is involved in hydro development and low-carbon/low-cost technical development collaborations with foreign coal and iron ore suppliers. We also perform systematic supply chain management to resolve social issues related to mining, such as conflicts, human rights abuses, and environmental issues. Furthermore, sustainable purchases are made through a system focused on responsible minerals policy, risk management, strengthened internal and external stakeholder capacity, and improved external communication. Moreover, POSCO formed the Go Extra Mile (GEM) Matching Fund to create social value, offer preferential treatment to socially responsible companies, and complete ESG purchases through the Fair Trade Compliance Program (CP) certification system.

Enhancement of Purchase Competitiveness

POSCO operates an optimum value purchase strategy. This establishes a stable and sustainable supply system and strengthens our competitive power through optimum value purchases, i.e., total cost of ownership purchases, by considering the comprehensive range of expenses for environmental, maintenance, quality, and logistics. With the goal of establishing a robust supply chain, excellent-rated suppliers are sought, with purchase strategies enforced per item to secure purchase competitiveness.
### Supply Chain Management Process

To build a robust supply chain, POSCO operates a three-stage management process: supplier registration, performance evaluation per contract fulfilled, and a follow-up management system.

#### Stage 1 - Supplier Registration
- Disclosure of detailed registration criteria per sourcing group
- Supplier application for registration, "Outreach sourcing service"
- Assessment Procedure: Contract, delivery → Performance evaluation → Application of suppliers’ objections → Confirmation evaluation
- Assessment Rating: Excellent (Over 90 points), Good (Over 70 points), Poor (Below 70 points)

#### Stage 2 - Performance Evaluation
- Supplier Relationship Management (SRM) Evaluation (Quarterly/Annually)
- Basic qualification examination → Factual survey → Quality TEST → Sources for Excellent-rated Suppliers
- Evaluated Item (Points):
  - Quality (35)
  - Cooperation (10)
  - Points added
    - Benefits sharing and shared-growth activity
    - Standard subcontract conclusion of agreements, etc.
  - Points deducted
    - Sanctions for safety & disaster control
  - Disqualified, Defect PosQC (POSCO Supplier Quality Certification)
  - Delayed Delivery rate
  - Competitive price rate
  - Credit (10)
  - Delivery (20)
  - Price (25)

#### Stage 3 - Follow-up Management
- Follow-up management for supplier evaluation: Selection of PHP suppliers according to evaluation results, bid participation restrictions for low-rated suppliers
- Bidding restrictions for low-rated suppliers
  - Quarterly review: One poor rating → Warning
  - Two consecutive poor ratings: Bidding restriction for three months
  - Annual review: One poor rating → Cancellation of sourcing group registration or bidding restriction for one year.
  - Supplier risk management: Supplier refresh check and quality audit

### Supplier Registration

POSCO operates sourcing groups as unit items as we consider the purchased goods’ supply market, item properties, and contract convenience, with the disclosure of detailed registration criteria per sourcing group. Companies that apply to register and those discovered through outreach sourcing are subject to a basic qualification evaluation, factual surveys, and quality tests to see if they meet the criteria of excellent-rated suppliers. Detailed evaluation items include credit rating, financial ability, supply ability, quality criteria, and ESG items. Upon registration, training is offered on the Supplier Code of Conduct and the Special Clause on Ethical Practices.

### Improvements in Supply Chain Management in 2021

1. **ESG Capacity Requirements for New Supplier Registration**
   - Veriﬁed ESG Risks: Including environmental law violations, unfair labor practices, and Fair Trade Act violations
   - Cooperation of previously dispersed ESG-related items
   - Increased evaluation ratio for ESG-related items (Previous Maximum 15% → 2021 Maximum 35%)

2. **Improvement of Previous Supplier SRM Evaluation**
   - Combination of previously dispersed ESG-related items
   - Increased evaluation ratio for ESG-related items
   - Operation of ethical whistleblowing and employee ethics pledge as part of anti-corruption activities
   - Environment, Health, and Safety (EHS) Certiﬁcations by Korea Occupational Safety and Health Agency (KOSHA)
     - 18001 or ISO 45001
   - POSCO Compliance Program (CP) Certiﬁcation

3. **Differenztated Supply Chain Management Through Subdivided Ratings**
   - New 5-level rating system: Excellent, Good, Average, Weak, Poor
   - Major ESG Evaluation Indicators
     - ESG-related certifications (Certification marks, ISO 14001, etc.)
     - Suppliers’ community service
     - Training results on environment, safety, fair trade, and anti-corruption
     - Operation of ethical whistleblowing and employee ethics pledge as part of anti-corruption activities
     - Environment, Health, and Safety (EHS) Certiﬁcations by Korea Occupational Safety and Health Agency (KOSHA)
     - 18001 or ISO 45001
   - POSCO Compliance Program (CP) Certiﬁcation
Supplier Evaluation Follow-up Management

POSCO publishes quarterly and annual reports for SRM evaluations of suppliers with the expanded 5-grade system. Poor-rated suppliers are required to submit an improvement plan for 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. Suppliers with a one-year restriction period must undergo the same examination procedure as new members by re-registering. POSCO Honored Partners are specially selected from excellent-rated suppliers and given preferential treatment such as price preference and contract deposit payment waivers.

Supplier Risk Management

POSCO operates a supplier monitoring system to ensure a robust supply chain system. Suppliers who fail short of the sourcing group registration standard (higher than B-class), hold disposal records of mandatory equipment and facilities, display poor quality management capacity, and lack bid participation results for the past year or trade performance for the past two years, will have their registration eligibility revoked. In 2020, 64 companies had their eligibility revoked.

In addition, supplier groups with high-quality impact items are subject to quality competitiveness and quality management, diagnostics to upgrade quality levels, and consulting activities. Suppliers with frequent quality issues have their quality management criteria diagnosed and corrected.

Supplier Code of Conduct

In June 2010, POSCO announced the POSCO Group Supplier Code of Conduct to embody our vision for all partner companies to fulfill their duties as global corporate citizens. The code of conduct, mandatory for all of POSCO's suppliers, is comprised of seven sections and 23 clauses, with basic categories such as environment and human rights, shared growth, fair trade, and quality management as stipulated by the UN Global Compact.
Fortification of Supply Chain Capacity

POSCO operates a total of 33 programs for the capacity enhancement of SMEs in the areas of technical cooperation, management stability, training, and consulting services. The representative programs are listed below:

Management Stability

1. Low-interest rate loans
To resolve the financial difficulties of SMEs, POSCO is operating a cooperation fund of 516 billion KRW from which loans can be provided at an interest rate 1% lower than the open market. In 2020, 339 small and medium businesses took out low-interest loans worth 439.2 billion KRW.

2. Shared growth investment fund
POSCO is making equity investments in new growth engines, small and medium partner companies, key clients with core technologies, and new businesses, forming long-term partnerships in the process. For this, KB Financial Group, Hanwha Group, and others have joined POSCO in forming a 200 billion KRW Small, Medium, and Large Company Shared Growth Investment Fund. POSCO spent 14.98 billion KRW for equity investments in new small and medium businesses, and is creating a POSCO Group ecosystem founded on its equity relationships. As a result, partnerships within the POSCO family are strengthened, securing a competitive advantage.

3. Financial relief fund
In 2012, POSCO collaborated with the Industrial Bank of Korea (IBK) to establish an industry financial relief fund totaling 101 billion KRW to provide financial aid to prospective small and medium businesses possessing outstanding intellectual property rights, yet were experiencing temporary financial difficulties. Through this, companies were temporarily revived and the competitiveness of the corporation was strengthened. POSCO is committed to helping increase the value of small and medium businesses, the core of the national economy. By the end of 2020, POSCO invested 36.9 billion KRW through the fund.

Technical Collaboration

4. Public-private co-investment technical development project
The Public-Private Co-Investment Technical Development Project is a cash support joint project of POSCO and the Small and Medium Business Administration. R&D project development expenses are paid due to the stability offered by POSCO’s guaranteed purchases. SMEs can be provided up to 1 billion KRW, within the 75% range of overall development expenses. If the project succeeds, long-term contract rights of up to three years can be assured.

5. Patent support program
POSCO is operating a patent support program to fortify technical competitiveness for small and medium businesses. First, POSCO makes public our own patents on the website www.steel-N.com, and allows small and medium businesses to use them as references for their products. Moreover, when small and medium businesses apply for joint patent ownership, all administrative expenses are paid by POSCO. Additionally, when products made with POSCO’s patents are delivered to POSCO, technology usage fees are waived to reduce costs and widen patent use. To resolve inquiries and bottlenecks regarding patents and intellectual property rights, a Small and Medium Business Patent Counseling Center is available to provide assistance.

Training and Consultative Support

6. Educational support for SMEs
POSCO manages a National Human Resource Development Consortium to improve job skills for SME executives and employees and foster core manpower through POSCO’s educational facilities and systems. In 2020, training was attended by 27,630 SME executives and employees. In addition, the POSCO Insight Forum (PIUM), a course created to respond to domestic and foreign business environment issues, and to develop business-savvy minds, is offered to management executives of outstanding partner companies.

7. Technical partnerships
Technical assistance teams comprised of Ph.D-level POSCO Technical Research Laboratories, RIST, POMIA, etc., assist local SMEs with technical problems. Moreover, test facilities are available for complimentary use. POSCO completed 304 technical support cases and 247 test analyses for 93 companies in 2020.

8. Technical consultations for SMEs
POSCO offers consulting services by professionals from both inside and outside of the corporation for SMEs with technical weaknesses or chronic problems. In particular, departmental consulting in the areas of facilities, safety, energy, and Quick Six Sigma (QSS) allows POSCO to assist SMEs and enhance its competitive power. A total of 154 companies participated in 2020.

Welfare Support

9. Joint use of health and wellness facilities
With the aim of being a corporate culture that emphasizes coexistence and cooperation, POSCO offers complimentary medical services and recreational facilities to partner companies. Executives and employees of partner companies can apply for the use of these facilities and services through the POSCO Group Integrated Portal System and utilize them according to their schedule.

10. Mutually beneficial daycare centers
POSCO is enhancing welfare services for partner companies that lack independent daycare centers due to limited space by building a mutually beneficial daycare center. Through improved welfare for partner companies and enhanced competitiveness, POSCO contributes to higher employment and birth rates, as well as the satisfaction level of employees of POSCO and partner companies.
**Responsible Minerals**

In 2020, POSCO became the first Korean steelmaker to join the RMI®, aimed at resolving social issues including human rights abuses during mining activities, environmental destruction, and capital inflows from conflict-affected regions. Simultaneously, the OECD Due Diligence Guidance five-stage framework was established for the implementation of responsible mineral supply chain management activities.

Responsible minerals are mined by respecting human rights and the environment and fulfilling social responsibility to ensure that minerals never become a source of funds for conflict-affected areas. The global society attaches great importance to responsible mineral-sourcing activities of corporations, by taking into account the severity of African conflict area crises. As a response, POSCO is abiding by the OECD’s Due Diligence Guidance for responsible mineral supply chains, and the Responsible Minerals Assurance Process (RMAP)® program formed by the RMI.

1) RMI: The Responsible Minerals Initiative, a global consultative group enforcing responsible mineral follow-up surveys, production company monitoring tasks, and certifications
2) RMAP: Responsible Minerals Assurance Process program operates an assessment system managed by RMI to validate smelting plants’ compliance with responsible mineral procurement

**Target Suppliers for Responsible Minerals**

POSCO purchases responsible materials from six RMAP-certified smelting plants and six RMAP-certified suppliers with the aim to strengthen the corporation’s responsible mineral purchases. Aside from the conflict minerals tin and tungsten, the range of management has been extended to include cobalt since 2020, due to human rights abuse cases occurring during mining tasks.

**Responsible Minerals Management Organizations**

In 2020, POSCO established a Responsible Minerals Consultative Group to create a unified responsible minerals policy. With the Purchasing & Investment Division’s raw materials office as its base, the CEO-led ESG Group, Judicial Office, Secondary Battery Materials Strategy Group, POSCO International, and POSCO Chemical are participating in the risk management group.

**High-Risk Supplier Risk Management**

POSCO selected 211 regions in 24 nations as Conflict-Affected and High-Risk Areas (CAHRAs) to strengthen its supply chain management and regulations so that 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 flag high-risk suppliers and manage risks. In the case of high-risk suppliers, the purchaser must, through either a direct or an independent third-party-party professional assessment, detect latent risks and improve them. In addition, internal/external stakeholder-targeted responsible minerals educational contents are available to ensure the POSCO Responsible Minerals Policy will expand and be complied with throughout the supply chain.

**POSCO is implementing the five-stage management framework shown below for responsible supply chain management.**

---

**Responsible Minerals Policy Framework**

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
<th>Stage 4</th>
<th>Stage 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment of Responsible Minerals Policy</td>
<td>Supply Chain Qualitative Information Collection and Evaluation</td>
<td>Risk Identification and Mitigation</td>
<td>Due Diligence</td>
<td>Transparent Disclosure of Activity Content for Communication Reinforcement</td>
</tr>
<tr>
<td>Policy setup, process organization, and internal stakeholder capacity enhancement</td>
<td>Questionnaire Survey including upstream areas, CMRT (Conflict Minerals Reporting Template), new supplier registration criteria reinforcement</td>
<td>Collected information and CAHRAs standard base, suppliers’ risk assessment and danger relief mechanism</td>
<td>Due diligence according to suppliers’ degree of risk, business trips and training services offered as part of management activity enhancement, RMAP certification support</td>
<td>Transparent disclosure of activity content and research findings</td>
</tr>
</tbody>
</table>

**Major Management Areas**

- Policy/Leadership
- Process/Organization
- Stakeholder capacity

**Responsible Minerals Management Roadmap**

- Early stage: First half of 2020
- Second stage: Second half of 2020
- Active participation stage: 2021
- Global best standard: 2022

**Current Status of Smelting Plants Transacting with POSCO in 2020**

<table>
<thead>
<tr>
<th>No</th>
<th>Metal</th>
<th>ID</th>
<th>Smelting plant location</th>
<th>Mineral origin</th>
<th>RMAP (Responsible Minerals Assurance Process) Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tin</td>
<td>CID001477</td>
<td>Indonesia</td>
<td>Indonesia</td>
<td>Certified</td>
</tr>
<tr>
<td>2</td>
<td>Tin</td>
<td>CID001482</td>
<td>Indonesia</td>
<td>Indonesia</td>
<td>Certified</td>
</tr>
<tr>
<td>3</td>
<td>Tungsten</td>
<td>CID002734</td>
<td>Russia</td>
<td>Russia</td>
<td>Certified</td>
</tr>
<tr>
<td>4</td>
<td>Tungsten</td>
<td>CID002843</td>
<td>Korea</td>
<td>Bolivia</td>
<td>Certified</td>
</tr>
<tr>
<td>5</td>
<td>Tungsten</td>
<td>CID002379</td>
<td>China</td>
<td>China</td>
<td>Certified</td>
</tr>
<tr>
<td>6</td>
<td>Cobalt</td>
<td>CID002621</td>
<td>DR Congo</td>
<td>DR Congo</td>
<td>Certified</td>
</tr>
</tbody>
</table>

*CAHRAs (Conflict-Affected and High-Risk Areas): Areas of conflict and frequent human rights risks such as armed conflict groups funded by minerals revenue and/or child labor*
CURRENT MANAGEMENT STATUS OF GEM MATCHING FUND

POSCO launched a 11 matching fund with overseas raw materials suppliers and is creating meaningful social values within local communities, and in the mining and steel industry value chains. The fund’s scale is 100,000 USD annually and is distributed to beneficiaries within the supplier’s nation and Korea, providing support for two years in both countries. In contrast to simple donations, the fund is used for selected mine-related scholarship funds, forest fire damage restoration, partner company training activities, and more. Seven types of funds are currently in operation, and sustainable purchases are practiced with the expansion of partner company purchase volumes.

The fund name was selected to mean both a gem (as in a jewel) and GEM (Go Extra Mile) Matching Fund, reflecting the POSCO corporate culture. POSCO established the first fund (Opal) with Australian company Yancoal in November 2020 and is currently running seven funds within Australia, the United States, and Brazil. Funds are created with suppliers who enthusiastically implement ESG activities and expand support for both nations’ community environment and educational projects. By restoring fire-damaged forests in Korea, contributing to carbon emissions reduction, supporting job training for Australian Aborigines, providing mining jobs, and aiding Brazil’s low-income education funds, POSCO is boosting social values.

POSCO runs an ESG Workshop with GEM Matching Fund suppliers and shares the top cases to promote social and environmental values from an ESG perspective. POSCO's goal is to gradually expand the GEM Matching Fund partner company coal purchase volumes among coal suppliers through an internal result index.
Co-Prosperity with Stakeholders

Social Contribution

True to the management philosophy of “Corporate Citizenship: Building a Better Future Together,” POSCO is continuously connecting with our diverse stakeholders. To resolve issues local communities face, all POSCO executives and employees are participating in various social contribution activities as corporate citizenship members.

Strategic Directions and Focus Areas

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

3 Focus Areas

- **Local Communities**
  - Construction of sustainable local communities
- **Future Generations & Vulnerable Groups**
  - Provision of high-quality education, creation of financial independence and job opportunities
- **Executive & Employee Participants**
  - Participating in voluntary contribution activities by creating and managing social projects

Local Community Highlights in 2020

POSCO Social Contribution Expenditures

POSCO’s social contribution expenditures are managed according to the Federation of Korean Industries (FKI) standard in the categories of social welfare, sports, culture, talent development, and volunteer work. Since 2013, additional details of donations, local community investments, and commercial initiative funds have also been made public.

Community Chest of Korea Donations for Neighbors in Need

- **Community Chest of Korea**
  - Donations for Neighbors in Need
  - 10 billion KRW (POSCO 8 billion KRW, Group companies 2 billion KRW)

Cumulative executive and employee volunteer hours (2020)

- **319,305 hours**
  - Average annual volunteer hours per person
  - **17.9 hours**
Local Community

POSCO has grown with our local communities, and considers it the company’s social responsibility to pursue their sustainable development.

**Activity Titles**

- **Sisterhood Villages**
- **Soup kitchens**
- **Slag fertilizer support**
- **COVID-19 aid activities**
- **Steel Villages**
- **Cultural arts**

**Activity Contents**

- **Sisterhood Villages**
  - Began in Hagwang Village, Gwangyang in 1988
  - One sisterhood village matched with each company division, regular sisterhood relationship in progress
  - Major Activities in 2020
    - Purchased regional specialties, assisted in seasonal farming labor
    - Repaired village facilities

- **Soup kitchens**
  - Established in Pohang and Gwangyang in May 2004
  - Supported food and facility costs for the running of soup kitchens
  - Implements executive and employee participative meal services
  - Major Activities in 2020
    - Provided meal kits to resolve undernourishment issues related to soup kitchen closures due to COVID-19
    - Donated rice through funds raised by executives and employees for neighbors in need

- **Slag fertilizer support**
  - Supported calcium silicate fertilizer made from slag, a steel-making byproduct, for the cultivation of high-quality farm produce
  - Major Activities in 2020
    - Purchased rice grown with calcium silicate fertilizer on local farms to brew local makgeolli rice wine, promoted its consumption

- **COVID-19 aid activities**
  - Donations to prevent the further spread of COVID-19, support for quarantine and medical personnel
  - Major Activities in 2020
    - Hosted concerts for medical personnel in COVID-19 intensive care units
    - Distributed protective clothing and masks to local governments

- **Steel Villages**
  - Since 2009, improved the residential environments of disadvantaged groups and constructed public facilities to create sustainable local communities
  - Major Activities in 2020
    - Indonesia: Completed 25 houses, 30 restrooms, 3 schools, 1 waste disposal facility (2018~2019), 1 multipurpose facility (2020)
    - Uiseong, Gyeongsangbuk-do Province: Formed a Youth Village with ready employment, residential environment, and facilities to promote youth participation
    - Vietnam: Constructed 1 steel bridge in an underdeveloped region

- **Cultural arts**
  - Operated a history museum, art gallery, and art halls in Pohang and Gwangyang, with complimentary performances and exhibitions for all local citizens

**Operational Performance in 2020**

- **Sisterhood Villages**
  - 208 sisterhood Villages (127 in Pohang, 81 in Gwangyang)
  - Operated 5 soup kitchens (3 in Pohang, 2 in Gwangyang)

- **Soup kitchens**
  - Provided operating expenses totaling 713 million KRW (2020)
  - 960 daily beneficiaries/ 250,000 annual beneficiaries

- **Slag fertilizer support**
  - Brewed makgeolli rice wine with harvested rice 13,000 bottles

- **COVID-19 aid activities**
  - POSCO Group
    - Contributed 5 billion KRW (Made corporate recreational space available as self-quarantine facilities)
    - Cilegon, Banten Province, Indonesia: 0.3 billion KRW
    - Uiseong, Gyeongsangbuk-do Province: 0.5 billion KRW
    - Vietnam: 0.1 billion KRW

  - Cumulative total of 39,503 beneficiaries
  - Cumulative support fund of 13.1 billion KRW

- **Steel Villages**
  - Indonesia: 12,194 POSCO Art Hall visitors
    - 11,826 POSCO Art Gallery visitors
    - 4,625 POSCO History Museum visitors

  - Cilegon, Indonesia (waste disposal facility)
Future Generations & Vulnerable Groups

POSCO constructed and currently operates elementary, middle, and high schools to provide high quality education to local community children and adolescents. Scholarship projects have also been conducted to discover potential future leaders in society. Additionally, POSCO offers stable employment to vulnerable social groups so they can establish themselves as members of society and be financially independent.

<table>
<thead>
<tr>
<th>Activity Titles</th>
<th>Activity Contents</th>
<th>Operational Performance in 2020</th>
</tr>
</thead>
</table>
| Beyond          | • Founded in 2007  
                 • 100-person college student team selected regardless of region, age, major, or gender  
                 • Constructed Steel Houses (domestic and overseas), implemented talent donations and cultural exchange  
                 **Major Utilization Programs in 2020**  
                 • Renovated Pohang’s 5 public facilities including the village hall and women’s society hall  
                 • Renovated 5 schools in Indonesia  
                 • Implemented or reorganized projects to discover, plan, and execute solutions to local social issues  | 46 national colleges  
100 students selected (50 female/50 male)  
Cumulative Beneficiary Statistics of Beyond Activities  
1,233 Domestic (182 families, 5 public facilities)  
1,132 Overseas (130 families, 5 schools) |
| Mutually Beneficial Daycare Centers | Workplace daycare centers for the children of executives and employees of POSCO Group companies and partner companies were newly established in 2020  
• Pohang Dongchon Daycare Center  
• Gwangyang Geumdang Daycare Center | 145 Beneficiaries  
58 in Pohang  
87 in Gwangyang |
| Social Enterprise (POSCO Humans) | • Established in December 2007 as the first domestic subsidiary-type standard workplace for the disabled (POSWITH)  
* Subsidiary-type Standard Workplace for the Disabled System introduced to provide stable employment to severely disabled people who have difficulty 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.  
• Relaunched as POSCO Humans in January 2013 (merged with POS Eco Housing, which had a similar purpose)  
• Recruited disabled individuals with employment difficulties first, priming the pump for job creation for the disabled  
• Implemented not only direct employment for the disabled, but also diverse programs for enhanced competence and improved health to support their social independence  
**Support for Disabled Employees**  
• Provided medical treatments of up to 8 hours per month, and hemodialysis treatments of up to 16 hours per month for those in need  
• Provided lease payments, devices like hearing aids and artificial legs for stable work performance, and offered a fund of 3 million KRW to employees with less than one year of employment  
• Supported assistive technology devices for the mounting of wheelchairs | Worksite Locations  
Pohang, Gwangyang, Seoul, Songdo (Incheon)  
Disabled workers make up 48.1% of the total (313 of 651 employees)  

▲ College student volunteer group Beyond – Global volunteering work in Indonesia  
▲ Construction of Mutually Beneficial Daycare Centers – Pohang Dongchon Daycare Center  
▲ Social Enterprise POSCO Humans
### ESG FACTBOOK

**POSCO TJ Park (Chungam) Foundation**
- The Steel Scholarship Foundation established in 1971, now the POSCO TJ Park (Chungam) Foundation which operates programs for the development of talent throughout local communities in Asia.
- **POSCO TJ Park (Chungam) Prize**
  - Total of 48 recipients in 4 categories: Science, Community Development & Philanthropy, Education, and Technology.
- **POSCO Asia Fellowship**
  - Scholarships for Asian international students in Korea (2005~): 438 students from 32 nations benefited
  - Scholarships for local Asian colleges (2005~): 5,006 students from 33 colleges in 19 nations benefited
  - Asia Opinion Leader Fellowship (established in 2019): 20 guest trainees from 8 nations benefited
- **POSCO Science Fellowship (From 2009~)**
  - 387 persons benefited
- **POSCO Youth Fellowship**
  - POSCO Vision Scholarship (2006~): 437 local community college students*
  - POSCO Heroes Fellowship (established in 2019): Upright citizens or their children as beneficiaries, 25 persons benefited
  - POSCO Dream Camp (established in 2019): Supports local community middle school students’ education, 209 middle school students, 70 college student mentors
* Excluding 117 beneficiaries of child head of household support fund

**POSCO Educational Foundation**
- Launched in 1971
- Total of 12 schools in operation (as of 2020)
  - 6 in Pohang, 5 in Gwangyang, 1 in Incheon
  - 2 kindergartens, 4 elementary schools, 2 middle schools, 4 high schools, continuous monitoring of aptitudes of individuals from preschool to higher education years

**Operational Performance**
- **478 beneficiaries**
- **12,227 beneficiaries (cumulative)**

- **2,332 beneficiaries (2020)**
- **126,907 beneficiaries (cumulative)**

- **12 schools in operation**
- **2,332 beneficiaries (2020)**
- **10,762 trillion KRW in contributions (1971~2020)**
Executive and Employee Participants

POSCO executives and employees are participating in locally specific contribution programs for volunteer work and sharing. Notably, talent donation activities utilizing their personal job skills and special abilities help them gain self-esteem and establish trust in local communities. In 2020, a total of 80 talent donation groups volunteered in Pohang, Gwangyang, and Seoul.

<table>
<thead>
<tr>
<th>Talent Volunteer Groups</th>
<th>Activity Contents</th>
<th>Cumulative Number of Volunteers in 2020</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 coding classes for married migrant women and children, traditional Korean music classes, and opportunities to attend sports events.</td>
<td>849</td>
</tr>
<tr>
<td>Woodcraft Volunteer Group</td>
<td>Manufacturing and installing customized furniture for disadvantaged families to support stable residential lives. Producing furniture through the talent of executives and employees in the designing, cutting, assembling, and finishing stages.</td>
<td>1,705</td>
</tr>
<tr>
<td>Cultural Assets Preservation Volunteer Group</td>
<td>Cleaning the environment in and around cultural assets, and developing inherited traditional culture through their management and maintenance.</td>
<td>731</td>
</tr>
<tr>
<td>Baking Volunteer Group</td>
<td>Visiting vulnerable individuals at local children’s centers and disabled persons’ welfare facilities, and offering handmade bread and refreshments.</td>
<td>274</td>
</tr>
<tr>
<td>Wall Mural Volunteer Group</td>
<td>Providing improved local community environments and emotional stability through the painting of wall murals.</td>
<td>563</td>
</tr>
<tr>
<td>Photography Volunteer Group</td>
<td>Taking photographs of local elders, underprivileged group family photos, and local community festivals and events.</td>
<td>219</td>
</tr>
<tr>
<td>Musical Talent Volunteer Group</td>
<td>Performing with acoustic guitars at local community events and when visiting disadvantaged individuals.</td>
<td>229</td>
</tr>
<tr>
<td>Landscaping Volunteer Group</td>
<td>Pruning welfare facility and public facility trees, trimming shrubs, and planting flowering trees.</td>
<td>649</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>1,269</td>
</tr>
<tr>
<td>Clean Ocean Volunteer Group</td>
<td>Executing marine ecosystem preservation activities with POSCO executives and employees. Restoring coastal and undersea environments in fishing regions near local communities.</td>
<td>1,343</td>
</tr>
<tr>
<td>Learning Guidance Volunteer Group</td>
<td>Implementing learning guidance for children and adolescent visitors of local children’s centers. Providing teaching and mentoring to resolve sources of trouble for adolescents and to foster positive mindsets.</td>
<td>1,387</td>
</tr>
</tbody>
</table>
## The POSCO 1% Sharing Foundation

The POSCO 1% Sharing Foundation is a non-profit public foundation established in 2013 with donations from the POSCO Group and partner company executives and employees through a voluntary 1% deduction from their salaries, along with the POSCO Group’s Matching Grant. As of 2020, 98% of all POSCO Group executives and employees are participating in the program. *Matching Grant: Managed through the joint participation of the workers and the company to promote the act of giving, with a fixed ratio of donations made by the company to match the executive’s and employee’s donation amount.*

<table>
<thead>
<tr>
<th>Number of Contributors</th>
<th>35,090</th>
</tr>
</thead>
<tbody>
<tr>
<td>(as of December 2020)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Business Revenue</th>
<th>10.67 billion KRW</th>
</tr>
</thead>
<tbody>
<tr>
<td>(as of 2020, executive and employee donations/ company matching donations/interest earnings)</td>
<td></td>
</tr>
</tbody>
</table>

### Major Projects

<table>
<thead>
<tr>
<th>Future Generations</th>
<th>Supporting the strong growth of future generations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 1% Sharing Art School</td>
<td>Cultural arts education centers for local children</td>
</tr>
<tr>
<td></td>
<td>1,072 child participants from 79 regions</td>
</tr>
<tr>
<td>• Sangsang Isang Science Camp</td>
<td>Experiential science camp made into a mobile game format to comply with COVID-19 regulations</td>
</tr>
<tr>
<td></td>
<td>Classes offered at school sites</td>
</tr>
<tr>
<td></td>
<td>10 science schools, 1,640 participants</td>
</tr>
<tr>
<td></td>
<td>• Do Dream</td>
</tr>
<tr>
<td></td>
<td>Independent living support fund for those discharged from child protection facilities, customized education, and 1:1 case management support</td>
</tr>
<tr>
<td></td>
<td>35 youth members benefited</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disabled Persons</th>
<th>Encouraging better lives for the disabled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Assist Devices</td>
<td>For Persons of National Merit</td>
</tr>
<tr>
<td></td>
<td>High-tech assist devices offered to people of national merit with war wounds or permanent injuries sustained by police/firefighters in the line of duty</td>
</tr>
<tr>
<td></td>
<td>Total of 26 selected and benefited</td>
</tr>
<tr>
<td>• Hope Wings</td>
<td>High-tech and individually customized assist devices produced and offered to disabled persons in the local community who may be outside of the government’s reach</td>
</tr>
<tr>
<td></td>
<td>36 selected and benefited</td>
</tr>
<tr>
<td></td>
<td>• Hope Space</td>
</tr>
<tr>
<td></td>
<td>Space design applied with heightened convenience for the disabled, remodeling of local community public facilities for the disabled</td>
</tr>
<tr>
<td></td>
<td>Total of 13 facilities remodeled, 562 persons benefited</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Multicultural Families</th>
<th>Supporting the self-reliance of multicultural families.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Chin Chin Rainbow</td>
<td>Program supporting the future career paths of multicultural and disadvantaged adolescents</td>
</tr>
<tr>
<td></td>
<td>Diversified future career path training on art, sports, entertainment, IT, etc., offered along with 1:1 case management support</td>
</tr>
<tr>
<td></td>
<td>115 students benefited</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Culture/Arts</th>
<th>Supporting culture and arts for the underprivileged.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• CollaboArtion (Collaboration + Art)</td>
<td>Program to support artistic activities and collaborations between disabled and non-disabled artists, with videos popularizing the artistic value of disabled artists produced and uploaded on YouTube</td>
</tr>
<tr>
<td></td>
<td>10 disabled artist team participants</td>
</tr>
<tr>
<td></td>
<td>20 videos, total view count 7.1 million</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change My Town</th>
<th>Contributor-led project with the selection and execution of ideas by contributors interested in resolving local community issues</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>70 projects implemented in 2020</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1% MLC (My Little Charity)</th>
<th>Small-scale, end-of-year sharing program on an online donation platform to comply with COVID-19 restrictions, with executives and employees personally recommending and selecting the recipients as part of donation participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total of 150 donation recipients</td>
<td>25,825 executive and employee participants</td>
</tr>
</tbody>
</table>
PEOPLE

Why Does It Matter?
Creating a safe work environment and developing employees’ skills is essential for corporate sustainability in a rapidly changing business environment. As a company, we believe it is our responsibility to respect human rights, promote diversity, and provide for our employees.

How Do We Respond?
POSCO is strengthening its safety management approach according to recent changes in operations. After declaring 2021 as an emergency safety and accident prevention period, we established the Safety and Environment Division dedicated to health and safety management. We plan to establish a similar department dedicated to our partner companies. At the same time, we are focusing on employee talent development by enhancing our artificial intelligence (AI) education and supporting emerging IT education which will improve work and business performance.
2021 Safety and Accident Prevention Period: Reorganization of the Safety Organization System

The 2021 Safety and Accident Prevention Period means a reorganization of the Safety Organization System and the implementation of special safety management measures to prevent the recurrence of similar accidents. The Safety and Environment Division, newly established under the COO, will function as a group safety environment control tower. In March, its management system was strengthened by enhancing its members’ expertise in safety, health, and environmental affairs. In addition, POSCO also created a Cooperative Safety Support Section that exclusively focuses on the safety of partner employees within the steelworks, along with the Safety and Environment Audit Group which assures overall compliance with POSCO’s safety and health management system.

Safety Organization Framework

- **COO**
- **Safety and Environment Division**
  - **Health and Safety Planning Office**
  - **Environmental Planning Office**
- **Safety Planning Group**
- **Health Care Planning Group**

1) Safety and Environment Division: General control tower for safety and environment
2) Safety and Environment Audit Group: Inspection of the safety/environmental management system
3) Cooperative Safety Support Section: Dedicated to partner safety management

Another new department is the Safety and Accident Prevention Team, which communicates safety issues directly to top management. They also seek-out resolutions and take immediate action. POSCO’s CEO heads the team, while the vice-chairperson is in charge of the Safety and Environment Headquarters. The task group, which is responsible for the field team, will be supervised by the heads of the steel mill and R&D center. In addition, there will be a 600-member Improvement Team that identifies and manages safety hazards first-hand. To start, they will be checking process risk factors in gas-handling and other enclosed facilities first.

POSCO will invest 1 trillion KRW in safety management over the next three years, on top of the 1.1 trillion KRW allocated in 2018. With this, we can better improve safety facilities and install additional safety protection devices. We also plan to fully automate all manual valves on hazardous equipment and install additional safety management CCTVs to monitor unsafe operations. For hazardous work groups in particular, we will develop a safety/accident prevention training infrastructure that can simulate work conditions for field workers.

POSCO provides safety training for all executives and employees to reinforce their safety skills. We will work with major domestic safety agencies to form a team of professional instructors and provide training to all executives and employees of POSCO as well as its partners and affiliates. In addition, we will offer specialized courses for each group and position along with advanced industrial safety education. In the future, our plan is to develop safety technologies specific to the steelmaking process, and to study and introduce advanced safety management techniques for global manufacturing.
Six Ways of Enhancing Safety Management

Introduced in January 2021, the Six Key Implementations on Enhancing Safety Management reflects a shift at our steel mill operations where safety is prioritized over production. At every steel mill site, every POSCO and partner company employee work together to create a safe workplace based on the corporate citizenship management philosophy.

1. From “Production First” to “Safety First”
   By prioritizing safety over production, workers will now prohibit all maintenance and repair work while the facility is active. This means informing the persons in charge to stop running operations to secure worker safety, and only perform maintenance work after obtaining consent from the operator.

2. Stringent Enforcement of Work Stop Authority
   The Work Stop Authority is the right of the worker to refuse to work if he or she receives unsafe work orders or has difficulty working due to physical or emotional factors. POSCO guarantees this as an employee right.

3. New Safety Report Center
   The Safety Report Center is an app-based system that enables real-time reporting of hazardous working conditions. Any worker (including partner employees) that is asked to perform unsafe tasks or identifies a potential safety threat can use this system to report an issue. The relevant department will then take immediate action.

4. Expanding Smart Safety Infrastructure
   We are expanding our smart safety infrastructure and eliminating potential blind spots by increasing the supply of detachable portable CCTVs and body cams. We will also implement use of the Safety Ball, a device that can look inside hard-to-see, confined spaces before initiating repairs.

5. Strengthening Safety Management Support for Partner Companies
   In February 2021, POSCO organized a separate cooperative safety support department dedicated to partner companies. This section will be responsible for reducing risk factors for our partners, supporting safe work performance, and sharing safety-related information.

6. Enhancing Employee Safety Training
   To keep up to date on safety-related topics, POSCO regularly invites external safety instructors for systematic training and implement smart technology to deliver the latest information. By expanding the use of safety videos, the goal is to install everyone at the company with a clear understanding of on-site safety rules.

Strengthening Site-Oriented Safety Management

Our new safety measures will focus more on solving problems in the field before addressing other issues. However, POSCO strives to be aware of any and all concerns at the worksite and of business partner employees through various committees and task forces.

Occupational Safety and Health Committee

POSCO operates a separate Occupational Safety and Health Committee at each business site. In accordance with the Occupational Safety and Health Act, every committee is made up of 10 members representing the employees and 10 members representing the employer.

This committee makes regular evaluations and decisions regarding the safety and health of all working staff, which includes the establishment of safety and health standards, creating industrial accident prevention plans, discussing matters related to safety and health education for workers, and listening to the opinions of employees. The Occupational Safety and Health Committee meets quarterly, and new members are appointed every three years.

Labor Management Safety Committee

POSCO also formed a safety committee made up of department supervisors and labor unions, which jointly inspects worksites. Its main activities include sharing information on potential risks, brainstorming solutions, performing on-site visits, and discussing methods for preventing accident recurrence. The committee also carries out Toolbox Meetings (TBM) for identifying risk factors and checking compliance with safety standards.

Operation of the Labor-Management Participatory Safety Innovation Committee

On July 23, 2019, POSCO launched the Safety Innovation Emergency Task Force. It is responsible for joint site inspections by POSCO and its business partners during which safety blind spots are identified and addressed. Additional inspections are made by the position manager and on-site workers during accident-prone periods, such as the night shift. The task force is also responsible for the review and repair of facilities and equipment, especially those that are old or unused. For example, replacing worn out stairs and handrails.

To assure proper implementation of safety measures, a comprehensive assessment of all risk-prevention activities was conducted five times throughout 2020, all under the supervision of the Head of the Steel Production and Technology Division. In addition, to lessen the number of industrial accidents, the task force is revising work standards and holding campaigns to improve safety awareness. If hazardous situations or equipment are reported, an emergency action team tries to resolve the issue the very same day.

In 2021, the Safety Innovation Committee, presided over by the Head of the Steel Division (CEO), will be operating year-round to strengthen the work safety culture.
Safety Education and Training

To raise safety awareness and minimize risk factors, POSCO provides legal safety training to direct management department employees and partner companies every year. Customized training is provided where necessary, as jobs and responsibilities vary across the company. In order to make sure that all training sessions are constructive, the performance results are regularly reported to the board of directors.

Safety Training Performance (2020)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Number of trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level-based Training</td>
<td>Training for administrative supervisors and new recruits</td>
<td>12,806</td>
</tr>
<tr>
<td>Global Safety Center Training</td>
<td>Equipment safety/ILS experience training</td>
<td>6,077</td>
</tr>
<tr>
<td>Partner Company Training</td>
<td>Safe handling of heavy items, injury case studies, etc.</td>
<td>507</td>
</tr>
<tr>
<td>Other (External) Training</td>
<td>VR-based, hands-on equipment safety benchmarking, etc.</td>
<td>874</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>20,264</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Number of trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>Felt-Leadership*</td>
<td></td>
</tr>
<tr>
<td>Administrative Supervisor</td>
<td>Felt-Leadership and Safety Management Competency</td>
<td></td>
</tr>
<tr>
<td>General Employee</td>
<td>Safety Mindset and Basic Rules</td>
<td></td>
</tr>
</tbody>
</table>

*Felt-Leadership: A type of leadership that follows the lead-by-example method. Top management and leaders receive safety training first. Employees then witness the management and leaders’ actions, recognize the importance of safety, and begin to implement their actions accordingly.

Health and Safety Management Policy

POSCO revised the Health and Safety Management Policy in February 2019 and has advocated for its full compliance group-wide. This will ensure that everyone accessing our worksites is protected from injury and that the overall work environment is pleasant and safe for every employee and visitor.

Health and Safety Management System Certification: ISO 45001

POSCO intends to operate all activities related to safety and health management on a global system. Up to this point, all domestic businesses have received ISO 450001 certification for the Global Safety and Health Management System in 2021.
**Occupational Health**

**New Health Care Planning Group**

POSCO established a new Health Care Planning Group with the POSCO Head Office to create a pleasant working environment and prevent occupational illnesses among employees. The Health Care Planning Group, which acts as a health control tower, oversees the activities of POSCO’s Health Promotion Center (Pohang Works, Gwangyang Works, Seoul/Songdo). It also plays a role in creating a company-wide system to improve the quality of employee health examinations and prevent health problems. Health and well-being are promoted within the workplace along with measures that improve the work environment.

**Occupational Health Policy**

POSCO operates an occupational health policy in three major areas to protect employees from illnesses and improve their quality of life. This is in line with our management principle that a company is only as healthy as its employees.

**Illness Prevention**

Every year, POSCO organizes health checkups for employees and their spouses for early detection and prevention of injuries and diseases. To further enhance the quality of health examinations, a higher-level general hospital has been designated as a checkup facility 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 also operates an in-house medical office to provide treatment and medication, as well as a physical therapy room for those at risk of musculoskeletal diseases. These in-house health promotion facilities are fully open to all employees including those from partner companies.

**Status of Health Checkups (Unit: No. of persons)**

<table>
<thead>
<tr>
<th>Category</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>16,951</td>
<td>17,298</td>
<td>17,227</td>
</tr>
<tr>
<td>Employee Spouse</td>
<td>3,019</td>
<td>2,922</td>
<td>3,324</td>
</tr>
<tr>
<td>Total</td>
<td>19,961</td>
<td>20,220</td>
<td>20,551</td>
</tr>
</tbody>
</table>

**Medication Provided (Unit: No. of persons)**

<table>
<thead>
<tr>
<th>Category</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSCO Partner Company</td>
<td>79,643</td>
<td>75,252</td>
<td>76,343</td>
</tr>
<tr>
<td>POSCO Partner Company</td>
<td>79,522</td>
<td>75,762</td>
<td>65,639</td>
</tr>
</tbody>
</table>

**Work Environment Management**

POSCO regularly measures the exposure level to hazardous factors in the workplace, as designated by the Ministry of Employment and Labor. Specifically, we monitor the management of enclosed areas within plants, the availability of personal protective equipment, and the use of chemical substances. POSCO has all intentions 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. As an example, for worksites that generate noise and dust, we provide training on the proper use of personal protection equipment with a hearing and respiratory protection fit test.

* Fit Test: This tests and measures any leak around the fitting areas of personal protective equipment and the equipment’s level of effectiveness.

**Health Promotion**

POSCO invites professionals with various specialties to provide health counseling and coaching on healthy lifestyles, exercise, and eating habits. Telehealth counseling is also available for both domestic and overseas employees. In addition to health counseling, we provide educational videos using health content from participating hospitals, and host classes to encourage employees to participate in health-related activities.

We also operate an in-house psychological counseling office to address employees’ mental health concerns such as job stress management, self-esteem, and trauma recovery. Starting this year, we are expanding its operating hours to support additional counseling to partner companies.

POSCO believes a healthy lifestyle involves exercise, which is why we offer personalized and theme-specific exercise programs guided by health trainers at our in-house fitness center. In addition, we want to help employees improve their eating habits by providing nutritious, healthy, and low-salt food at our in-house cafeteria.

**Psychological Counseling Users**

<table>
<thead>
<tr>
<th>Year</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users</td>
<td>1,817</td>
<td>1,974</td>
<td>2,146</td>
</tr>
</tbody>
</table>

▲ POSCO-Seoul National University Hospital Gangnam Center Discussing the Health Consultation Program

*Decline in users due to COVID-19*
Recruitment

POSCO recruits new talent based on their knowledge but also looks for the necessary qualifications as future corporate citizens. During open recruitment, we select "creative talent with a practical and caring mindset."

POSCO’s hiring process is designed to judge all applicants fairly by objectively evaluating their skills and qualifications, conducting systematic screening, and abiding by our standards. After 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 knowledge and expertise, while the second assesses their personality and whether they will be a great fit for the company.

Talent Development

POSCO operates several different programs aimed at strengthening our employees’ professional skills. These programs help individuals grow through work, education, and network.

Recruitment Website

POSCO recruits new talent based on their knowledge but also looks for the necessary qualifications as future corporate citizens. During open recruitment, we select “creative talent with a practical and caring mindset.”

POSCO’s hiring process is designed to judge all applicants fairly by objectively evaluating their skills and qualifications, conducting systematic screening, and abiding by our standards. After 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 knowledge and expertise, while the second assesses their personality and whether they will be a great fit for the company.

Talent Development

POSCO operates several different programs aimed at strengthening our employees’ professional skills. These programs help individuals grow through work, education, and network.

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.
Career Development
POSCO supports and encourages its employees' career development and hopes to grow the next generation of insightful leaders by increasing their technical expertise. There is a CDP (Career Development Plan) model for each job field, and office staff and engineers can use it to map their own route. New recruits first gain the necessary experience for their job, but they can later move on to other positions in the company. 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 that stand out are also trained in production process management to eventually become field supervisors.

Steel Challenge Winner
POSCO provides various training opportunities to strengthen the technical capabilities of on-site engineers. This has proven to be successful as POSCO engineers won the Steel Fair Competition hosted by Worldsteel two years in a row (2019 and 2020).

Capacity Building Program
POSCO focuses on training professionals to transfer technological knowledge in line with changes in the work environment. We also offer customized leadership training programs to strengthen our management’s leadership skills.

New Collar Level Certification System
Being in the digital transformation era, POSCO plans to identify and train employees for new positions that “contribute to society using new IT technology to improve work and create new values.” We launched the New Collar Level Certification System just for this purpose in 2020 and all employees are welcome to participate.

The New Collar Level Certification System offers level-based online and offline training courses on data analysis. The courses are divided into four levels. Upon successful completion of each level, the 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.

<table>
<thead>
<tr>
<th>Category</th>
<th>Curriculum</th>
<th>Certification Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEVEL 1 (Beginner)</td>
<td>- New Collar Level 1_Workbench - New Collar Level 1_R - New Collar Level 1_Python</td>
<td>- After completing the Workbench, R, or Python course, pass the evaluation test * Choose from offline group training (3 days) or e-learning (24 hours)</td>
</tr>
<tr>
<td>LEVEL 2 (Semi-Expert)</td>
<td>- New Collar Level 2_Workbench - New Collar Level 2_R - New Collar Level 2_Python</td>
<td>- After completing the Workbench, R, or Python course, pass the data analysis and coding competency certification test * Choose from group training (8 days) or e-learning (64 hours)</td>
</tr>
<tr>
<td>LEVEL 3 (Expert)</td>
<td>- AI Master’s Program Study Abroad (Selected) - POSTECH Applied AI Expert Course (Selected)</td>
<td>- Completion of Level 3 curriculum and 1 Smart Task (Participation in Collaboration)</td>
</tr>
<tr>
<td>LEVEL 4 (Master)</td>
<td>- AI Doctoral Program Study Abroad (Selected)</td>
<td>- 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)</td>
</tr>
<tr>
<td>Common</td>
<td>Mandatory e-learning (digital literacy mindset) for all employees: before December 31, 2021</td>
<td></td>
</tr>
</tbody>
</table>
Customized Training Support

To foster future talent, POSCO offers customized education programs for 1,380 courses, including 61 group classes and 1,319 e-learning courses.

Field Technical Staff

Evaluation and Rewards

POSCO believes in rewarding its hard-working, talented employees and has developed a fair and objective evaluation system to compensate personnel based on performance. Prior to any evaluation, both the employee and the appraiser sign a ‘fair evaluation pledge’ and after, said 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 assure these assessments remain fair and equal, POSCO provides periodic training on the evaluation criteria and methods.

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 access their capabilities and overall performance, and helps the manager provide the necessary coaching and feedback when needed.

In consideration of internal and external factors, employees’ wages are increased largely according to their individual evaluations without any discrimination based on gender. We also offer bonuses to outstanding employees through the Variability Management Performance System, which are based on the company management’s overall success.
Corporate Culture
POSCO gives employees of all positions the opportunity to express their opinions freely. This helps the company easily identify and resolve problems, and establish an efficient and flexible corporate system. We are also committed to maintaining a workplace where everyone is respected, and oppose any discrimination based on gender, nationality, race, or disability.

Encouraging Hobbies
Supporting employees’ hobbies means supporting their self-development, hence the launch of our program Dongho Dongrak. In short, it’s a collection of clubs of various interests ranging from sports, such as tennis and soccer, to cultural and learning activities, such as movie nights and language learning. As of the end of 2020, a total of 11,653 employees were involved in one or more of our 1,073 clubs. POSCO contributes for up to two club activities per employee, spending around 380 million KRW per year. Employees are also actively contributing with their own talents, which serves to enhance 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.

Cooperation and Collaboration
Cooperation between organizations is crucial during every step of POSCO’s production processes, from importing materials to iron making and rolling.

POSCO implements various cooperation strategies to eliminate disagreements between organizations and create a more harmonious communicative culture. Introduced in 2020, the Executive Cooperation Key Performance Indicator (KPI) is helping us achieve joint goals with other departments such as marketing-research and production-marketing. We use a similar strategy when collaborating directly with employees, using a cooperation points system to convey gratitude.

Employment for People with Disabilities
POSCO and the group companies are actively making efforts to expand employment opportunities for people with disabilities. One example is granting additional points to applicants with disabilities. Based on a report from the Korea Employment Agency for the Disabled from 2020, POSCO’s employment rate for people with disabilities is 3.3%.

In addition, we are operating 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 Business by the Korean Employment Agency for the Disabled in January 2021.

POSCO Group defines itself as more than a workplace, we constantly strive to create a friendly working environment in which all people with disabilities are respected without discrimination.

Improving Employee Satisfaction
POSCO conducts the Great Work Place (P-GWP) survey every year to evaluate and improve the workplace culture of its executives and employees around the world. The P-GWP consists of five sections and the results are delivered to every department so that every member can make POSCO a better place to work.

The 2020 P-GWP’s overall employee satisfaction came out at 89 points (out of 100), up three points from the previous year, even despite the effect of the pandemic. This is the highest rating POSCO has recorded since the survey began. Other categories of the survey also showed improvement thanks to increased activities for a good work-life balance, better communication between executives and employees, streamlined working methods, options for part-time work arrangements, and expanding telecommuting during childcare periods.

P-GWP Survey Results

<table>
<thead>
<tr>
<th>Year</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>67 points</td>
</tr>
<tr>
<td>2019</td>
<td>86 points</td>
</tr>
<tr>
<td>2020</td>
<td>89 points</td>
</tr>
</tbody>
</table>

*91% participation rate, excluding executives/new employees, based on POSCO Corporate Head Office
POSCO operates the Young Board as a way to promote the CEO’s vision of a corporate culture based on trust and creativity, and better improve company communication. Young Board members are selected from various departments including production, technology, marketing, and management support. They suggest improvements such as ways to create a safer work environment, modernize work methods, and enhance communication between employees of different generations and/or positions.

In 2019, the selection of Young Board members was expanded to include field-level technicians to strengthen communication with the millennial generation and give them a voice in the management of POSCO. We are already seeing results, as the Young Board are helping with several common issues such as reinforcing safety at steel mills and helping facilitate the sharing of know-how between long-term employees and their successors.

Family-friendly Business

One of POSCO’s priorities is to create a welcoming workplace for women. In July 2020, we were the first Korean company to introduce a work-from-home program so that employees wouldn’t have to take a career break while raising young children. This program allows any employee with children under the age of 8 to work from home while taking care of their family. Because of its success, the program is currently expanding to 15 group affiliates as it has established itself as a practical support system. In September 2020, POSCO also introduced a “work from home during pregnancy” option aimed at supporting a healthy childbirth by pregnant female employees. In February 2021, we expanded this to include female employees undergoing fertility treatment. POSCO plans to provide generous pregnancy, childbirth, and childcare support to all employees so that they do not have to worry about their careers.

POSCO is also making continuous efforts to increase the number of women in management positions. We appointed the first female executive of a steel mill in 2020 and the first female president of a group affiliate in 2021. All of this helped us win the Ministry of Employment and Labor and the first female president of a group affiliate in 2020.

In addition to the labor union, POSCO operates a Labor-Management Council under the Worker Participation and Cooperation Promotion Act. The council, a strong believer in the corporate citizenship philosophy, is a volunteer group that aids in replacing woodwork and vibration nets.

Benefiting Labor Relations

Since our inception, POSCO approaches labor relations with the philosophy that management and labor are “partners building a better future.” Currently, there are two labor unions active at POSCO with the POSCO Labor Union having the status of a bargaining representative union. In 2020, the POSCO Labor Union was able to sympathize with the difficult management conditions caused by COVID-19 and began wage-bargaining with the company. The vote for and against the wage agreement, including the wage freeze, was approved by 93.44%.

At POSCO, both labor and management are dedicated to having stable relations and participating in corporate citizenship programs, as it maintains our corporate culture of trust and harmony. The POSCO Labor Union practices Union Social Responsibility (USR) and recently launched a talent donation group for landscaping volunteer work in 2020.

In addition to the labor union, POSCO operates a Labor-Management Council under the Worker Participation and Cooperation Promotion Act. The council, a strong believer in the corporate citizenship philosophy, is a volunteer group that aids in replacing woodwork and vibration nets.

Young Board

Young Board members are selected from various departments including production, technology, marketing, and management support. They suggest improvements such as ways to create a safer work environment, modernize work methods, and enhance communication between employees of different generations and/or positions.

Pregnancy/Childcare Support Programs (as of 2020)

- **Pregnancy**
  - **Infertility Leave**: 10 days annually, split use possible (6 days paid leave)
  - **Infertility Treatment Support**: Up to 1 million KRW per treatment, 10 times in total
  - **Paid Leave for Pre-natal Examination and Miscarriage/Abortifion Leave**: Get a full payment wage

- **Childbirth**
  - **Maternity Leave**: Mandatory use of 90 days (120 days for multiple pregnancies)
  - **Paid Leave for Maternity**: 60 days/5 years

- **Childcare**
  - **Childcare Leave**: 2 years (up to 2 hours per day, full payment of basic wage)

- **Childcare Leave**: 2 years (up to 2 hours per day, full payment of basic wage)

Strengthening Competitiveness of Overseas Employees

POSCO is a global company that invests in over 20 countries. Our overseas subsidiaries are working on increasing local management and local manpower. We believe that by pushing 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 also believes in training our overseas talent, which is why we offer various programs such as leadership courses and the change agent program. Our Global Mobility Program (GMP) has been operating since 2015. It is designed to facilitate networking between our headquarters and overseas subsidiaries, 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 100 employees from nine countries have participated in the GMP.

GMP has been operating since 2015, and is designed to facilitate networking between our headquarters and overseas subsidiaries, 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 100 employees from nine countries have participated in the GMP.

Benefits of GMP

- **Increased possibility of a prosperous career and better future**
- **Program is currently expanding to 15 group affiliates**
- **Practical application**
- **Korean company to introduce a work-from-home program**
- **Second and each subsequent child: 5 million KRW**
- **First child: 2 million KRW**
- **Option to shorten by 2 hours per day, full salary**
- **Childcare Leave**: 2 years (up to 2 hours per day, full payment of basic wage)
- **Childcare Leave**: 2 years (up to 2 hours per day, full payment of basic wage)
- **Childcare Leave**: 2 years (up to 2 hours per day, full payment of basic wage)
- **Childcare Leave**: 2 years (up to 2 hours per day, full payment of basic wage)
GOVERNANCE

- Transparent Governance
- Exemplary Business Practices
- Economic Contribution
## Governance Structure

POSCO aims to build an advanced corporate governance structure that enhances long-term shareholder value while supporting the rights and interests of stakeholders. This involves upholding a global professional management system of checks and balances between management and the Board of Directors as outlined in the Corporate Governance Charter. While POSCO’s management is utilizing its expertise to conduct business responsibly, the Board, which is geared toward independent outside directors, offers a useful, third-party perspective when discussing corporate matters.

### Board Composition

At the 53rd general shareholder meeting held on March 12, 2021, Sung-jin Kim, former President of Hankyong National University, was reelected as an outside director, while Young-sook Yoo, former principal researcher at KIST, and Tae-kyun Kwon, former Korean ambassador to the UAE, were newly elected. Internal directors, Hag-dong Kim, Head of Steel Business Unit, Jung-soon Chon, Head of Global & Infra Business Unit, and Tak Jeong, Head of Marketing Division, were reelected, while Chang-hwa Chung, Head of Management Support Division, was newly elected. At the Board meeting held following the general shareholder meeting, outside director Seung-wha Chang was elected as the Chairperson of the Board.

### Director Composition

POSCO ensures that outside directors constitute the majority of the Board in conformity with Article 27 of Board regulations. Currently, there are seven outside directors (58% of the total) and five inside directors (42%).

### Appointment of Directors

Directors are appointed at the general shareholder meeting, after the inside directors and the Director Candidate Recommendation Committee, composed of outside directors, make the candidate recommendations. If shareholders choose to exercise their rights to nominate candidates, the Director Candidate Recommendation Committee presents the eligible candidates at the general shareholder meeting.

<table>
<thead>
<tr>
<th>Director Composition</th>
<th>Names</th>
<th>Expertise</th>
<th>Work Experience</th>
<th>Tenure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside Directors (7 directors)</td>
<td>Seung-wha Chang (Chairperson of the Board)</td>
<td>Law and International Trade</td>
<td>Professor in Dept. of Law, Seoul National University, Chair of the Korea Trade Commission, Ministry of Trade, Industry and Energy, - LL.B. (LL.M. Seoul National University, EL.M.P. J.D. Harvard University)</td>
<td>2020.3~2023.3 Date of the appointment 2019.3</td>
</tr>
<tr>
<td></td>
<td>Shin-bae Kim</td>
<td>Industry</td>
<td>Former Vice Chairperson of SK Group, Former CEO of SK Telecom - B.S. in Industrial Engineering, Seoacional National University, MBA, University of Pennsylvania</td>
<td>2019.3~2022.3 Date of the appointment 2017.3</td>
</tr>
<tr>
<td></td>
<td>Moon-ki Chung</td>
<td>Finance and accounting</td>
<td>Professor in Dept. of Business Administration, Sungkyunkwan University, Former member of the Accounting Review Committee, Financial Supervisory Services - B.A. in International Trade and Ph.D. in Business Administration, Sungkyunkwan University</td>
<td>2019.3~2022.3 Date of the appointment 2017.3</td>
</tr>
<tr>
<td></td>
<td>Sung-jikwon</td>
<td>Industry and policy</td>
<td>President of Hankyong National University, Former Minister of Oceans and Fisheries - B.A. in Econ., Seoul National University, Ph.D. in Economics, U.K. of Korea</td>
<td>2021.3~2024.3 Date of the appointment 2018.3</td>
</tr>
<tr>
<td></td>
<td>Haesoo Park</td>
<td>Industry and policy</td>
<td>Professor in Dept. of Mechanical and Aerospace Engineering, Seounal National University, Former Head of the Office of Strategic R&amp;D Planning, Ministry of Trade, Industry, and Energy - B.S.M.E. in Materials and Design Engineering, Seoacional National University, Ph.D. in Mechanical Engineering, University of Manchester</td>
<td>2019.3~2023.3 Date of the appointment 2019.3</td>
</tr>
<tr>
<td></td>
<td>Young-sook Yoo</td>
<td>Environment</td>
<td>Former Principal Research Scientist at Korea Institute of Science and Technology (KIST), Former Minister of Environment - B.S. in Chemistry/M.S. in Biochemistry, Yonsei University, Ph.D in Biochemistry and Biophysics, Oregon State University</td>
<td>2017.3~2024.3 Date of the appointment 2021.3</td>
</tr>
<tr>
<td></td>
<td>Tae-kyun Kwon</td>
<td>Financial affairs</td>
<td>Former Senior Advisor of Yulchon LLC, Former Korean Ambassador to the UAE - B.A.M.A., Seoul National University, Ph.D. in International Finance, Chung-Ang University</td>
<td>2021.3~2024.3 Date of the appointment 2021.3</td>
</tr>
<tr>
<td>Inside Directors (5 directors)</td>
<td>Jeong-won Choi</td>
<td>Finance, policy and industry</td>
<td>CEO of POSCO, Former CEO of POSCO Chemical Co., Ltd. - B.A. in Economics, Pusan National University</td>
<td>2017.3~2024.3 Date of the appointment 2018.2</td>
</tr>
<tr>
<td></td>
<td>Hag-dong Kim</td>
<td>Technology and industry</td>
<td>Head of Steel Business Unit, Representative Director &amp; President of POSCO, Former Head of Steel Production &amp; Technology Division, Senior Executive Vice President of POSCO - B.S. in Metallurgy Engineering, Seoul National University, M.S. in Materials Science and Engineering, Carnegie Mellon University</td>
<td>2021.3~2022.3 Date of the appointment 2019.3</td>
</tr>
<tr>
<td></td>
<td>Jung-soon Chon</td>
<td>Finance, accounting, and policy</td>
<td>Head of Global &amp; Infra Business Unit, Senior Executive Vice President of POSCO, Former Head of Corporate Strategy &amp; Finance Center, Senior Executive Vice President - LL.B., Korea University</td>
<td>2022.3~2022.3 Date of the appointment 2018.3</td>
</tr>
<tr>
<td></td>
<td>Chang-ho Chung</td>
<td>Industry and external cooperation</td>
<td>Head of New Growth Business Unit/POSOCO, Managing Director, Senior Executive Vice President of POSOCO - B.A. in Economics, Wayne State University, Ph.D. in Candidate in Economics, Northwestern University</td>
<td>2017.3~2023.3 Date of the appointment 2019.3</td>
</tr>
<tr>
<td></td>
<td>Tak Jeong</td>
<td>Marketing and trade &amp; commerce</td>
<td>Head of the Marketing Division, Senior Executive Vice President of POSCO, Former Head of the Steel Business Division, Senior Executive Vice President of POSCO - B.A in Arabic, Hankuk University of Foreign Studies</td>
<td>2017.3~2022.3 Date of the appointment 2019.3</td>
</tr>
</tbody>
</table>
Composition of Special Committees

There are six special committees operating under the Board: the ESG committee, the Director Candidate Recommendation Committee, the Evaluation and Compensation Committee, the Finance Committee, the Audit Committee, and the Executive Management Committee. With the exception of the Executive Management Committee, which focuses on steel business investments, the other five are chaired by outside directors.

<table>
<thead>
<tr>
<th>Committee</th>
<th>Chairperson</th>
<th>Director Candidate Recommendation Committee</th>
<th>Finance Committee</th>
<th>Audit Committee</th>
<th>Executive Management Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESG Committee</td>
<td>Shin-bae Kim</td>
<td>Moon-ki Chung</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outside Director</td>
<td>Seung-jae Kang</td>
<td>Tae-kyun Kwon</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outside Director</td>
<td>Young-soo Yoo</td>
<td>Shin-bae Kim</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside Director</td>
<td>Hag-dong Kim</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Board of Directors

- Review of environment and low-carbon policies
- Preliminary review of safety and health plan
- Monitoring of ESG-related plan execution
- Recommendation of director candidates
- Deliberation of Special Committee composition
- Evaluation of management performance
- Evaluation and compensation of management
- Deliberation of major external investment plans
- Deliberation of funding-related agenda
- Inspection of directors’ performance
- Audit of internal accounting
- Deliberation of major internal investments and external steel production-related investments

Independence of the Board

POSCO elects outside directors through an independent and transparent process. The Outside Director Candidate Recommendation Advisory Group, composed of five prestigious experts from various fields, recommends the candidates. The Director Candidate Recommendation Committee then evaluates and nominates qualified candidates. Appointments are finalized at the general shareholder meeting. To engage more shareholders in the nomination process, POSCO implemented a shareholder recommendation system in 2018 and has also included those candidates.

To improve board independence, an outside director is appointed as the Chairperson of the Board while special committees are headed by outside directors. In addition, regular meetings for outside directors are held to gather more independent opinions about the Board’s agenda.

Diversity and Expertise of the Board

POSCO’s outside directors, who have vast experience and expertise, are selected from various areas such as industry, finance, academia, legal affairs, accounting, and public services with the goal of improving the decision-making process. To ensure diversity in the Board’s composition, outside directors are appointed with consideration to their gender, nationality, age, academic achievement, and expertise. POSCO also strengthened the board’s diversity by appointing a female environmental expert as a director and launching the ESG Committee in 2021. Overnight brainstorming sessions are held twice a year to enhance the Board’s strategy and help define the company’s mid-to-long-term operational direction. To ensure that outside directors continue to build upon their experience, POSCO has then visit steel mills and new business sites.

Establishment of ESG Committee

POSCO established the ESG Committee in March 2021 to strengthen the company’s ESG management by reviewing major ESG policies and monitoring their execution. An environmental expert was appointed within the committee to enable the Board to oversee the progress of the carbon-neutrality goal.

Key discussion points for the ESG Committee

- Environment and climate change-related low-carbon policy
- Preliminary review of safety and health plans
- Board of Directors and special committees’ operational items
- ESG-related plan execution monitoring and report publication

Pool of Outside Director candidates (Unit: persons)

<table>
<thead>
<tr>
<th>Category</th>
<th>As of Dec. 2019</th>
<th>As of Dec. 2020</th>
<th>In comparison to Dec. 2019</th>
<th>Female candidates as of Dec. 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of outside director candidates</td>
<td>142</td>
<td>283</td>
<td>+141</td>
<td>66</td>
</tr>
<tr>
<td>Finance</td>
<td>9</td>
<td>24</td>
<td>+15</td>
<td>5</td>
</tr>
<tr>
<td>Accounting</td>
<td>21</td>
<td>38</td>
<td>+17</td>
<td>9</td>
</tr>
<tr>
<td>Industry</td>
<td>48</td>
<td>67</td>
<td>+19</td>
<td>18</td>
</tr>
<tr>
<td>Academia</td>
<td>28</td>
<td>84</td>
<td>+56</td>
<td>16</td>
</tr>
<tr>
<td>Legal affairs</td>
<td>18</td>
<td>37</td>
<td>+19</td>
<td>13</td>
</tr>
<tr>
<td>Public services</td>
<td>18</td>
<td>33</td>
<td>+15</td>
<td>5</td>
</tr>
</tbody>
</table>
Board Operation
Board meetings were held eight times in 2020, with outside directors having 100% attendance and internal directors having a 96.4% attendance rate. Major topics discussed at these meetings included the appointment of the board chairperson, participation in the recapitalization of POSCO CHEMICAL, planning for the quarterly/year-end dividend payout, mid-term business strategy, and the 2021 business plan.

Outside directors’ participation in management and expertise enhancement activities
- Visits to worksites to grasp the status of business activities
  Jan. 2020 / June 2020
  *Visits limited to prevent the spread of COVID-19 in 2021
- Participation in outside directors’ meeting to report and collect opinions for Board agendas
  June 2020 / Oct. 2020
- Participation in strategy sessions to collect opinions on new business promotion methods such as for the rechargeable battery business
  April 2020
- Participation in strategy sessions to collect opinions on POSCO’s mid-term tactics and 2020 business plan
  Nov. 2020

Evaluation of the Board
Since 2010, POSCO has been running the Board of Directors Performance Assessment System to improve the Board’s function and boost external credibility. The self-assessments are performed every February and results are reported in May. Every member of the board qualitatively and quantitatively evaluates both the Board and the special committees they belong to. They also make an overall assessment of the organization, management, and operation of the Board. Through reports and discussions, the results of these assessments are utilized in improving the Board’s overall operation.

Major ideas for improvements in 2020
- Reorganization of the Special Committee on ESG
- Improvement of the management performance assessment system

Remuneration of Board Members
Directors are compensated within limits approved at the general shareholders meeting and in accordance with delete 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 are composed 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.

Director Qualifications (Corporate Governance Charter 3-3: Qualification of Directors)

Board Independence Policy
1. 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.
2. Standing directors, as high-level managers of a corporation, shall have sufficient experience and knowledge related to the company’s business, and shall be capable of making managerial decisions in a rational and appropriate manner.
3. Outside directors shall have sufficient knowledge and experience in a relevant field such as finance, economics, management, legal, accounting, etc., and shall have no material relationship with the company, and shall be able to make decisions independently from the company and its shareholders.
4. To ensure diversity in the composition of the Board, outside directors are appointed with consideration of a candidate’s gender, nationality, age, academic achievement, and expertise.

Director Responsibilities (Corporate Governance Charter 3-6: Responsibility of Directors)
1. Directors shall do their utmost in performing 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 during the course of executing their role for their own or any third parties’ benefits.
2. Directors, as members of the company, shall abide by POSCO’s Code of Conduct. The Board oversees the ratification of behavioral procedures stated in the Code of Conduct.
3. When a director violates the law or the articles of incorporation, or neglects his/her duties, he/she may be liable for damages to the company or a third party. However, managerial decisions by the director that are based on good faith and rational judgement shall be respected.
4. To mitigate the director’s liability and to attract a competent director, the company may purchase liability insurance coverage for the director.
5. 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.

Code of Ethics for POSCO’s Outside Directors
We, the outside directors of POSCO shall lead the ethical management of the company and fulfill the responsibilities of outside directors and hereby resolve as follows:
- We are non-executive directors elected by POSCO shareholders who entrust the management of the company to management professionals.
- We shall take a fair and clear stance when serving our duties for the profit of the Company and the common interest of the shareholders.
- We value the independence of outside directors and shall execute professional judgement to the fullest for the continuous development of a professional management system that focuses on competence and results.
- We shall assist POSCO in fulfilling its social responsibility in a way that befits its history and founding spirit in order to contribute to national development by way of operation of austemaking business.
- We will strive to establish a corporate culture in which all members of the Board collaborate with each other for the sake of the company.
- We shall not pursue our personal interests with respect to our job as POSCO outside directors and make no inappropriate interference in personnel affairs and sales. Information acquired in the course of our work will not be used for personal advantage.
- We shall respect POSCO’s Code of Ethics and observe the code along with other employees of the company. Under this Code of Ethics, we shall play a leading role in creating a great corporate culture.
GOVERNANCE

Transparent Governance

Corporate Citizenship Advisory Council

POSCO’s Corporate Citizenship Advisory Council, which is under the direct control of the 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 with the addition of experts in safety, environment, and organization.

The council meets quarterly and reviews the corporate citizenship strategy and activities, proposals on ESG trend changes, and preventive actions concerning industry safety and health issues.

Since its inception, the council has contributed to the establishment of 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 in 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 carry out debates on recent sustainable global business trends, including the UN’s SDGs.

Based on these discussions, POSCO not only systematically responded to ESG demands but also set up a system that enables the company to effectively communicate with the public about its corporate citizenship-related activities from the 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 the effort, the council offered strategy consultations on enacting CCMS (Corporate Citizenship Management Standards). If the POSCO Charter of Corporate Citizenship is like a compass that shows the direction, the CCMS is a map that will lead the Group to specific goals. The CCMS is a guide to practicing corporate citizenship, which categorizes the company’s operations into 13 modules including strategy, finance, production, marketing, purchasing, and R&D, and presents best practice cases for each module. The enactment and proclamation of CCMS is meaningful in that it offers a set of standards for management and employees to follow when practicing corporate citizenship so they can produce actual results.

On top of this, the council also contributes to the company’s ESG management by offering advice on the publication of the Climate Action Report that reflects recommendations from the TCFD (Taskforce on Climate-related Financial Disclosure) and POSCO’s plan for carbon neutrality.

Starting in 2021, the council will work closely with the newly incorporated ESG committee on ESG issues.

Corporate Citizenship Advisory Council Organization Chart

Advisory council members

- So-keun Kwak (Chairperson) Emeritus Professor of Business at Seoul National University
- Eui-jeong Yu (Member) Dean of Business School at Hanyang University (Member)
- Jong-dae Kim (Member) Professor of Business at Inha University
- In-hoe Kim (Member) Professor of Law at Inha University
- Ki-seop Moon (Member) Former Head of the Korea Chamber of Commerce and Industry, Human Resources Development Division
- Hag-dong Kim (Representative Director & President) Head of POSCO Global & Infra Business Unit / Corporate Strategy & Planning Division
- Jung-son Chon (Representative Director & Vice-president) Head of POSCO Steel Business Unit / Steel Production & Technology Division

Board ESG Committee Members

Major Functions of Corporate Citizenship Advisory Council

- POSCO Group’s corporate citizenship strategy consultation
  - Consultation on mid-to-long term strategy for group-wide corporate citizenship activities
  - Consultation on the leading corporate citizenship business and activity directions
- External communication
  - Communication with major interest groups outside the company related to corporate citizenship activities
- Advice on ESG
  - Review of POSCO Group’s ESG performance
  - Suggestions on strategic responses to changes in ESG trends
- Major corporate citizenship activity performance
  - Review of corporate citizenship value creation
Ethics Management Process
POSCO operates by the following standards, so that executives and employees can practice ethics management at work and in their daily lives:

1. Ethics policy and methodology
   Establishment of governance and strategy
   Enactment and revision of the Code of Ethics/Practice Guidelines

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

3. Ethics assessment
   Regular surveys and intermittent reporting

4. Measures taken against unethical behavior
   Disciplinary actions for offenders, protection of whistleblowers

5. Change management
   Coaching for department heads and their employees

Ethics Management Strategy
“Doing the right things, the right way” is the core message of POSCO’s ethics management philosophy. This refers to how POSCO carries out necessary and meaningful work in a fair and transparent manner, in terms of substance, execution, and practicality. In order to make ethics management a deeply rooted part of our culture, we strive to improve it by preventing unethical behaviors and promoting an innate respect for human rights.

Operational goals

To improve the company by making ethical standards and respect for human rights part of our daily lives

Main operational direction

Creating a collaborative relationship with business partners by abiding by ethical standards

Preventive measures and detecting unethical behavior in line with the digital era

Embracing diversity to foster a happy workplace

Expansion of human rights protections

Review and innovation of work methods from the “zero-base” perspective

Main roles of the ethics management organization

Ethics Guidelines, Training, Value of Mutual Respect
- Expansion of ethics management to include partner companies
- Enactment/amendment of the Code of Ethics and related guidelines
- Operation/improvement of the ethics management system
- Ethics training and campaigns for executives and employees

Unethical Conduct Audit
- Four major unethical behavior categories: bribery, embezzlement, sexual harassment, and manipulation of business-related information.
  - A zero-tolerance policy applies to these four cases
  - Investigation of any case of disregard for human rights: sexual harassment, bullying, abuse of power
  - Continued monitoring and inspection of special interest cases
  - Inspection of other business practices

Response Detection
- Hotlines in place to report abuse of power, bullying, or sexual harassment
- Ethical diagnosis for executives, department heads, part leaders, and overseas subsidiaries
- Continuous monitoring of high-risk departments

Goverance
The Corporate Audit Office, under the direct control of the CEO, is responsible for ethics management at POSCO. The Business Ethics Risk Management Bureau, part of the Corporate Audit Office, oversees various ethics management activities such as the establishment/implementation of ethics management policy, training, and campaigns, investigating any disregard for human dignity, and building the domestic and overseas network for subsidiaries and partner companies. In 2021, POSCO established a Safety & Environment Audit Group to look out for and prevent safety and environmental risks. Significant ethics management issues are reported to the CEO and upper management once a month, and an annual ethics management performance assessment is provided to the Audit Committee by the Board.
**Ethics Training**

Every January, executives and employees make an electronic pledge to comply with the Code of Ethics. The company also runs online and in-person training programs for executives and employees of domestic and overseas subsidiaries. In 2021, POSCO plans to expand its virtual training platform using a video conferencing system.

In 2019, POSCO plans to expand its virtual training platform using a video conferencing system.

- **Prevention of sexual harassment**
  - Training for employees with consideration to job level and work duties
  - Mandated e-learning courses
  - In-person training for employees and department heads employed outside the company
  - Tailored ethics training offered to employees with consideration to job level and work duties
  - E-mail: Unethical behavior, bullying, abuse of power, sexual harassment
  - Follow-up procedure
  - Training and monitoring to prevent workplace bullying, abuse of power, and sexual harassment

**Ethics Assessment**

- **Development of POSCO Ethics/Human Rights Assessment checklist**
  - POSCO has developed and employs its own ethics/human rights assessment checklist.

- **Surveys**
  - POSCO regularly carries out employee surveys on the ethical roles and responsibilities of executives, group heads, and managers. Depending on the results, individuals may be monitored for any unethical behavior or disregard for human rights, such as bullying, sexual harassment, or abuse of power. If necessary, an investigation follows. As of 2021, assessments for the disregard of the Code of Ethics will be expanded to include all positions including supervisors and executives.

- **Reporting Unethical Behavior**
  - POSCO operates a Reporting Center for Unethical Behavior, to which both executives and employees can report unethical behavior at any time.
  - Any concerned party, 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 any case of inappropriate solicitation on the Clean POSCO System. Any executive or employee who was 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.

**Category**

- **Main contents**
  - Mandatory e-learning courses
  - Company-wide posting of ethics management campaign
  - Ethical Management Letter
  - E-mail on workplace harassment
  - In-person training for executives and employees

**Ethics Management**

- **Prevention of sexual harassment**

**Grievance handling process**

- **Receipt of grievance reports (counseling requests)**
  - Counseling and reporting
  - E-mail: Unethical behavior, bullying, abuse of power, sexual harassment
  - Telephone: Unethical behavior, bullying, sexual harassment

- **Investigation into incident**
  - Counseling and investigation into parties in complaint report
  - Subjects: victims, offenders, third parties (Confidentiality and non-retaliation agreements signed)

- **Verification and request for action**
  - Verification of reported information, followed by disciplinary measures when deemed necessary

- **Notification of the actions taken**
  - Acknowledgment given to the victim/whistleblower following the request for HR department to take action

- **Follow-up procedure**
  - Training and monitoring to prevent workplace bullying, abuse of power, and sexual harassment

**Unethical behavior, sexual harassment counseling status**

- **2018**
  - 105

- **2019**
  - 150

- **2020**
  - 182

**Regulation on the Prohibition of Political Donations in Accordance with Anti-Corruption Guidelines**

- **Article 6: Prohibition and Restrictions on Convenience**

**Actions Taken Against Unethical Behavior**

POSCO has a zero-tolerance policy regarding the four major unethical behavior categories of bribery, embezzlement, sexual harassment, and manipulation of business-related information. Appropriate measures are taken when any such violation occurs, and the identity of the victim or whistleblower is protected.

**Status of reports filed at the Reporting Center for Unethical Behavior**

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Cases</th>
<th>No. of Disciplinary Measures Taken</th>
<th>No. of People who received disciplinary actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>95</td>
<td>109</td>
<td>103</td>
</tr>
<tr>
<td>2019</td>
<td>112</td>
<td>235</td>
<td>412</td>
</tr>
<tr>
<td>2020</td>
<td>114</td>
<td>48</td>
<td>356</td>
</tr>
</tbody>
</table>

- **Reports of corruption** (personal dishonest dealings, waste of company assets, etc.)
- **Complaints** (Customer complaints, grievances from partner companies, etc.)
- **Other** (Disregard for human rights, etc.)

**Actions taken against unethical behaviors**

- **No. of unethical behavior cases reported**
  - 2018: 340
  - 2019: 412
  - 2020: 356

- **No. of disciplinary measures taken**
  - 2018: 109
  - 2019: 103
  - 2020: 103

- **No. of people who received disciplinary actions**
  - 2018: 272
  - 2019: 301
  - 2020: 220

- **Disciplinary actions**
  - 2018: 103
  - 2019: 134
  - 2020: 81

- **Warnings or less**
  - 2018: 169
  - 2019: 167
  - 2020: 137

- **Other**
  - 2018: 62%
  - 2019: 71%
  - 2020: 62%
Change management
Ethics sessions for executives/heads of departments/part leaders

After receiving feedback on executives and supervisors from the ethics survey, customized training programs are arranged to help the individual learn from his/her mistakes.

Results of ethics assessment of supervisors (unit: points)

<table>
<thead>
<tr>
<th>Category</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executives</td>
<td>84</td>
<td>92</td>
<td>92</td>
</tr>
<tr>
<td>Heads of departments</td>
<td>91</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>Management</td>
<td>91</td>
<td>92</td>
<td></td>
</tr>
</tbody>
</table>

*Ethics sessions for department heads launched in 2018, Ethics sessions for management launched in 2019.

Department-tailored ethics consulting
POSCO addresses ethics management by assessing each department’s ethics diagnosis by performing a verification of competency, listening to the opinions of employees, and monitoring any reports of misbehavior. Because of the newly implemented changes resulting from the pandemic, the Visiting Consultation program was suspended in 2020. However, as of 2021, training consultations will be provided via video conferencing based on departmental risk factors and records from the ethics audit database.

Compilation of guidelines
The POSCO Group refers to the Special Clause on Ethical Practice, Action Guidelines on Conflict-of-Interest Prevention, Guidelines on Anti-Corruption Compliance, and POSCO Human Rights Protection Guidelines to determine specific action plans for ethics management. The Casebook contains a summary of category-specific, real-life cases, and is also utilized when counseling executives and employees.

POSCO Group Ethics Management
Business Ethics Index Evaluation System

To encourage full engagement in ethical business practices across POSCO Group, the company operates the Group Business Ethics Index Evaluation System. If a case of any disregard for human rights is discovered through our survey system, either the POSCO Corporate Audit Office or the audit department of the relevant subsidiary will investigate the matter.

In the first quarter of 2021, an ethics management package was provided to four subsidiaries where executive audit positions were created. Each package is composed of POSCO Ethics Management systems, guidelines, teaching plans, and campaigns.

Business ethics index — evaluation items

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code of Ethics and operational organization</td>
<td>Establish the Code of Ethics and guidelines to prevent bullying and workplace harassment and operate dedicated ethical organizations.</td>
</tr>
<tr>
<td>Effective operation of systems</td>
<td>Offer preventive training programs and employ internal reporting/counseling systems.</td>
</tr>
<tr>
<td>Monitoring and follow-up measures</td>
<td>Perform continuous monitoring and actions to reduce ethical risks.</td>
</tr>
<tr>
<td>Preventive measures for the recurrence of violations</td>
<td>Act to prevent recurrence of violations and expand the ethics management system.</td>
</tr>
</tbody>
</table>

Ethics Assessment Surveys for Partner Companies

POSCO issues ethics/human rights assessment surveys that are unique to the company but based on global standards such as OECD Multinational Enterprises and Human Rights Commission guidelines. These surveys help prevent risks by regularly monitoring the status of human rights and ethics management in overseas subsidiaries. In 2021, POSCO plans to appoint an ombudsperson to carry out compliance work through training and coaching at our partner locations.

Domestic subsidiaries’ ethics assessment results

<table>
<thead>
<tr>
<th>Category</th>
<th>Survey target</th>
<th>Target Response Rate</th>
<th>No. of People Disciplined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic subsidiaries</td>
<td>2020</td>
<td>15 companies</td>
<td>64%</td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td>15 companies</td>
<td>53%</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>26 companies</td>
<td>52%</td>
</tr>
</tbody>
</table>

Overseas subsidiaries’ ethics assessment results

<table>
<thead>
<tr>
<th>Category</th>
<th>Survey target</th>
<th>Target Response Rate</th>
<th>No. of People Disciplined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overseas subsidiaries</td>
<td>2020</td>
<td>51 companies</td>
<td>68%</td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td>30 companies</td>
<td>59%</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>82 companies</td>
<td>52%</td>
</tr>
</tbody>
</table>

Ethics Management for Partner Companies

POSCO shares its ethics management infrastructure with all partner companies and provides customized consulting services to build a broader consensus on human rights.

In 2020, we launched an online communication channel, Ethics With POSCO, due to constraints on face-to-face meetings in line with COVID-19 guidelines. In 2021, POSCO plans to restart partner company surveys, which were paused due to COVID 19. We will also expand the scope of surveys to include partner companies in Seoul, Pohang, and Gwangyang. POSCO’s ethics management support is provided first to any partner company that has reports of unethical behavior from executives and employees, so that the company may enhance its competitiveness on its own merits.

Support provided to partner companies

1. Implementation of the code of ethics and ethics system
3. Donation of fees earned for activities outside the company and the implementation of gift-return centers
4. Establishment of the Reporting Center of Unethical Behavior

Regular in-house training
Provision of customized training materials based on consultations

1. Consultation on ethics dilemmas
2. Online ethics counseling: Receiving congratulatory or contributory money from interested parties, complaints such as construction costs, accidents, and ethics system operation-related issues
3. Sharing ethics campaign cases

Ethics violation cases (4 cases): Bribery, abuse of power, sexual harassment, manipulation of business-related information
Human Rights Management Process

Human Rights Policy

POSCO specifies its respect for the protection of human rights in the Code of Ethics. The company works hard to prevent workplace discrimination, offer equal employment opportunity, respect cultural differences, guarantee humane working conditions, and protect other human rights in the community.

1. POSCO observes relevant regulations and human rights standards across 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.

POSCO Human Rights Protection Guidelines


Human rights training supervised by local subsidiary head in 2020

- Target companies: 28
- Completed Training: 28
- Participation Rate: 85.0%

* Due to COVID-19 in 2020, only 3,543 people received in-person training, while 4,631 people received virtual training.

Human Rights Risk Management

POSCO carries out annual employee surveys at all domestic and international locations as well as partner companies to identify and manage any issues that can lead to human rights violations. If any such case is suspected, either the head office or relevant department within the subsidiary investigates and monitors the situation.

Ethics Pledge and Training

Every January, the POSCO group and its partner companies make a pledge to comply with the Code of Ethics, which includes human rights-related issues. Online and in-person training programs are offered to both executives and employees to prevent human rights violations. At overseas subsidiaries, ethics management training is carried out by the companies’ top management.

Human Rights Grievance Process

POSCO has organized a system dedicated to offering counseling on ethics, workplace bullying, and sexual harassment. The company protects human rights by taking appropriate measures against any violation.
Human Rights Due Diligence Process

POSCO utilizes due diligence to fulfill its human rights responsibilities. The process identifies negative impacts on human rights, prevents violations, and mitigates problems. It also evaluates both established and potential factors that may affect human rights, documents any measures taken, and facilitates communication between the parties involved.

POSCO listens to the voices of interested parties through various channels and works hard to fulfill its responsibilities. The company operates a grievance process at all times. Any concerned party may register his/her grievances into the company's system, after which they will be reviewed by those in charge. All results are reported to the party involved, documented in the Corporate Citizenship Report, and handled in an open and honest matter. POSCO has also set up a grievance system, after which they will be reviewed by those in charge. All results are reported to the party involved, documented, and shared with all stakeholders.

Management of Human Rights in Overseas Subsidiaries

POSCO has referred to a human rights checklist since 2016 to evaluate the level of human rights management in its overseas subsidiaries. Through this checklist, subsidiaries are able to carry out self-assessments as well. At the same time, the Corporate Audit Office has been conducting independent evaluations since 2020. By comparing all results, human rights risks are lessened and suggestions for improvement are made to the relevant subsidiary. In 2021, POSCO will appoint an ombudsperson to monitor the ethical situation at overseas subsidiaries.

The Corporate Audit Office will be responsible for their training and coaching and continue to support them during their compliance work.

Via the Employee Satisfaction Survey (P-GWP), POSCO separately investigates whether employees of overseas subsidiaries are respected in a humane fashion and provided with a safe work environment.

Results of 2020 overseas subsidiaries’ self-assessment on human rights

<table>
<thead>
<tr>
<th>Self-assessment</th>
<th>Assessment items</th>
<th>Assessment results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation of 59 companies</td>
<td>Total of 14 items (11 Human rights management items, 3 Ethics practice items)</td>
<td>99 points (99 points for human rights management, 99 points for ethics practice)</td>
</tr>
</tbody>
</table>

Results of human rights survey on overseas subsidiaries

- Overseas subsidiaries’ self-assessment
- Head office (Corporate Audit Office) inspection

Overseas subsidiary ethics/human rights checklist items

Establishment of a human rights management system
- Non-discrimination in employment
- Guarantee of freedom of assembly and collective bargaining
- Prevention of forced labor
- Protection of child labor
- Protection of occupational safety
- Protection of environmental rights
- Responsible management of supply chain
- Protection of human rights of locals
- Protection of human rights of consumers
- Prevention of bullying and sexual harassment
- Compliance with ethical standards
- Compliance with special provisions on ethics practices
- Communication and consensus
- Protection of human rights of locals
- Protection of human rights of consumers
- Prevention of occupational safety
- Responsible management of supply chain
- Protection of human rights of locals
- Protection of human rights of consumers
- Prevention of bullying and sexual harassment
A Foundation for Exemplary Business Practices

**Fair Trade**

POSCO implemented its own Fair Trade Compliance Program in 2002 to comply with fair trade regulations and uphold the principles of free and fair market competition. The CEO's annual letter highlights the importance of this along with POSCO's compliance with laws and regulations. Our dedication to fair trade is one of the many ways we fulfill our role as corporate citizens.

**Fair Trade Compliance Organization**

The Legal Affairs Office is charged with assuring POSCO abides by fair trade practices. The office provides employees with fair trade training and counseling and performs regular reviews.

**Fair Trade Risk Management**

Through its Fair Trade Compliance Program (CP), POSCO operates an internal compliance system based on the prevention-detection-response cycle. This system helps to prevent risks and fosters a fair and transparent corporate culture.

**POSCO CP Management System**

- Prevention
- Detection
- Response

- Set CP policies and take preventive measures
  - Support for CP operations at the executive level
  - Establishment and amendment of compliance guidelines
  - Provision of customized training, counseling, and information

- Full-time monitoring
- Review of compliance risks
- Self-assessments by working-level departments

- Provide coaching on system improvements and follow-up measures
- Conflict resolution and prevention of recurrence
- Networking and cooperation, CP activity evaluation

**Partner Company Fair Trade CP Certification System**

POSCO is the first company in Korea to implement a CP Certification System for our partner companies. This system will help POSCO support its partners in building internal fair-trade agreements and allows us to provide incentives to exemplary partners.

**Fair Trade CP**

POSCO’s Fair Trade CP is an internal compliance system founded and operated by POSCO in accordance with Fair Trade Compliance Norms. 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 as recommended by the Korea Fair Trade Commission (KFTC). At the moment, a total of 20 POSCO group affiliates operate such compliance programs, all working to broaden the practice of fair-trade compliance through the POSCO Compliance Academy.

**CP Operational Status**

(B Core Elements + Fair Trade Compliance Council)

- Establishment and Implementation of CP Standards and Practices
  - Enactment of Conglomerate & Company Filing Operational Guidelines (March 2019)
  - Enactment of Fair Trade Compliance Guidelines for Overseas Subsidiaries (Dec. 2019)

- CEO’s Commitment to Compliance
  - Announced commitment to fair trade practices through CEO’s message
  - Signs an annual pledge to fair trade compliance

- Appointment of Compliance Officers
  - Appointment of fair trade compliance officers based on the decisions of the Board of Directors (Finance and Related Party Transactions Committee)

- Effective evaluation and measures for improvement
  - 2006-2012: Obtained AA rating from the Korea Fair Trade Commission in CP ratings (4 consecutive times)
  - 2013-2015, 2017, 2019: Obtained the top rating in the Win-Win Growth Index

- Operation of the Fair Trade Compliance Council
  - Operation of the Fair Trade Compliance Council composed of 24 heads of departments

**Implementation of continuous compliance training**

- Provisional regular training on fair trade for working-level departments (procurement, sales)
- Provisional of hierarchy-based training on fair trade for new employees and supervisors
- Operation of an e-learning program (Fair Trade Basics, Fair Trade Violation Cases Studies)

**Establishment of an internal monitoring system**

- Reporting of CP operational outcomes and plans to the Board (Finance and Related Party Transactions Committee)
- Provision of fair trade counseling to POSCO and Group affiliates
- Provision of advice/counseling alongside status reviews of weaknesses

**Disciplinary measures against offenders**

- Enforcement of disciplinary actions according to the severity of the violation
- Prompt enforcement of disciplinary actions against repeat offenders

**Effective evaluation and measures for improvement**

- 2006-2012: Obtained AA rating from the Korea Fair Trade Commission in CP ratings (4 consecutive times)
- 2013-2015, 2017, 2019: Obtained the top rating in the Win-Win Growth Index

**Online training**

- Fair Trade Basics, Fair Trade Violation Cases Studies

<table>
<thead>
<tr>
<th>Category</th>
<th>No. of people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collecting Training</td>
<td>2,866</td>
</tr>
<tr>
<td>Online Training</td>
<td>2,494</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Units: No. of people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company CP</td>
<td>372</td>
</tr>
<tr>
<td>Group affiliates</td>
<td>305</td>
</tr>
</tbody>
</table>

**Fair Trade Training**

POSCO offers overseas subsidiaries and group affiliates tailored training and coaching on fair trade. There are also regular meetings with overseas subsidiaries’ legal affairs councils. The councils’ goal is to prevent risks by sharing information on notable current issues and establishing relevant compliance guidelines.
A Foundation for Exemplary Business Practices

Information Security

POSCO responds to highly developed information security threats through the Information Security Committee, which ensures continuous compliance with domestic and international regulatory requirements and security standards while protecting core technologies and critical data. The committee actively counteracts security risks by analyzing domestic and international information security regulations, current business conditions, the latest technological advances, and new risk-management trends. POSCO plans to expand the security assessment and consulting services of the committee to our partners and customers in line with our corporate citizenship philosophy.

Information Security Policy

POSCO’s information security regulations and guidelines are based on data protection principles. These are amended annually to reflect changes to laws and the company’s internal and external business environment and confirmed by the Information Security Bureau.

All regulations and guidelines are uploaded to the company’s Enterprise Portal (in-house system) for any executive or employee to view.

Information Security Policy Operations Cycle

Information Security Committee

POSCO’s information protection and cyber security strategies are overseen by the Information Security Committee. A committee meeting is held annually, presided over by the Chief Information Security Officer. Each meeting covers a review and assessment of the company’s information security practices, the sharing of novel strategies, and deliberation over future tactics.

Information Security Support Tasks

Comprehensive security level and operational system diagnosis
Inspection of security system operation and penetration testing
Security management enhancement and security expert training
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 analyzing domestic and international hacking trends, and performing real-time monitoring, detection, and counteractions against attacks. The integrated security control center also regularly inspects the system for weaknesses to be prepared for external breach attempts, and regularly holds penetration tests to strengthen its responsiveness.

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 homepage and major systems, inspects its weaknesses, conducts breach tests utilizing in-house experts, identifies delete weaknesses and looks for improvements and signs of breaches.

Response to Information Security Breaches

In the case 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 in alleviating the incident. This can be deleted if you want to make the layout look better.

POSCO also established a five-step standard for cyber intrusion alerts in accordance with the Korea Internet & Security Agency’s standards. We also have a company-wide response system, centering on the All Source Situation Room, which acts as the control tower in case of any incident.

Information security mascots

POSCO’s Information Security Mascots

Welsh corgi Poco
Welsh corgi Pomi

Information security campaign using information security mascots

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

POSCO In-house Cyber Breach Warning Levels

Serious - A situation in which a continuous threat exists, seriously affecting IT services and work
Alert - A situation in which measures are being delayed, affecting specific services and work
Caution - A situation that is solvable and has limited impact on specific services or work
Concern - A situation in which the threat of a security breach is elevated due to external security issues
Normal - General security threat situation that has no impact on internal or external systems
GOVERNANCE

Economic Contribution

Tax Policy

As a corporate citizen, POSCO contributes to the development of local communities through strict tax management. The company fully complies with tax laws by filing and paying due taxes, thus contributing to the nation’s finances and Korean society. POSCO prevents tax risks and complies with relevant regulations through continuous assessment of tax policies, institutional reviews, and improvement where necessary.

Tax Management Policy

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

POS Risk Management

POSCO ensures that decisions are made on the basis of tax risk assessments and reviews. We duly file tax reports and make all payments within the set deadlines while documenting and archiving supporting materials of the transactions. POSCO maintains a transparent relationship with tax authorities and responds to all requests for additional information in a prompt and accurate manner. Regarding 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.

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 paying all corporate taxes, value-added taxes, withholding taxes, local income taxes, and acquisition taxes, which are tax revenues that help develop local communities.

Tax Risk Assessment

POSCO works hard to prevent any and all tax risks that may arise in the transaction of goods and services related to business operations, M&As, restructuring, international transactions, new business promotion, or changes in transactional structure. When making business decisions, POSCO’s tax organization collaborates with external experts to review all possible tax risks.

Tax Risk Assessment Process

1. Thorough analysis of specific factual grounds
2. Review of relevant domestic and international regulations and tax practices
3. Review of potential tax risks
4. Review of countermeasures to address any potential risks
5. Analysis of costs and profits under various scenarios
6. Review of legitimate tax-reduction resources (tax system improvement)
**Transparent Tax Payment**

For 2020, POSCO recorded earnings before taxes of 2.25 trillion KRW, with reported taxes of 236.9 billion KRW at a reported tax rate of 11.7% in its consolidated financial statements. The recorded cash taxes paid amounted to 692.9 billion KRW at the cash tax rate of 34.2%. The calculated reported average tax rate for the recent two years is 25.7% and the calculated average cash tax rate is 31.6%. It is worth noting that the cash tax rate for 2020 is 5.9% higher compared to the reported tax rate. The 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.

### Consolidated financial statement basis (Unit: one hundred million KRW)

<table>
<thead>
<tr>
<th>Financial Reporting</th>
<th>FY 2019</th>
<th>FY 2020</th>
<th>Calculated Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings before tax</td>
<td>30,533</td>
<td>20,250</td>
<td></td>
</tr>
<tr>
<td>Reported taxes</td>
<td>10,700</td>
<td>2,369</td>
<td></td>
</tr>
<tr>
<td>Reported tax rate (in %)</td>
<td>35.1%</td>
<td>11.7%</td>
<td>25.7%</td>
</tr>
<tr>
<td>Cash taxes paid</td>
<td>9,133</td>
<td>6,929</td>
<td>Current tax</td>
</tr>
<tr>
<td>Cash tax rate (in %)</td>
<td>29.9%</td>
<td>34.2%</td>
<td>31.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reason</th>
<th>FY 2019</th>
<th>FY 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported taxes – cash taxes paid</td>
<td>1,573</td>
<td>(4,560)</td>
</tr>
<tr>
<td>Temporary differences</td>
<td>650</td>
<td>(4,709)</td>
</tr>
<tr>
<td>Losses carried forward</td>
<td>238</td>
<td>194</td>
</tr>
<tr>
<td>Unrealized gains and losses</td>
<td>685</td>
<td>(45)</td>
</tr>
</tbody>
</table>

### Corporate tax data by region (Unit: one hundred million KRW)

<table>
<thead>
<tr>
<th>Category</th>
<th>Sales</th>
<th>Operating profit</th>
<th>Corporate income tax expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>620,111</td>
<td>23,041</td>
<td>2,569</td>
</tr>
<tr>
<td>China</td>
<td>98,229</td>
<td>2,181</td>
<td>892</td>
</tr>
<tr>
<td>South America</td>
<td>45,085</td>
<td>1,810</td>
<td>179</td>
</tr>
<tr>
<td>Southeast Asia</td>
<td>44,756</td>
<td>1,298</td>
<td>91</td>
</tr>
<tr>
<td>Japan</td>
<td>24,443</td>
<td>552</td>
<td>52</td>
</tr>
<tr>
<td>Indonesia</td>
<td>22,538</td>
<td>935</td>
<td>54</td>
</tr>
<tr>
<td>India</td>
<td>19,064</td>
<td>384</td>
<td>54</td>
</tr>
<tr>
<td>Europe</td>
<td>12,403</td>
<td>264</td>
<td>25</td>
</tr>
<tr>
<td>Africa</td>
<td>3,279</td>
<td>443</td>
<td>16</td>
</tr>
<tr>
<td>North America</td>
<td>1,621</td>
<td>25</td>
<td>419</td>
</tr>
<tr>
<td>Others</td>
<td>137,920</td>
<td>9,290</td>
<td>9,577</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,028,849</strong></td>
<td><strong>40,228</strong></td>
<td><strong>13,928</strong></td>
</tr>
</tbody>
</table>

*Based on consolidated financial statements
ESG bonds are issued to raise funds for undertaking environmental projects, resolving social issues, and improving corporate governance. They are divided into green bonds, social bonds, and sustainability bonds.

**Green Bond**
A special-purpose bond issued to fund environmental preservation projects such as renewable energy, electric vehicles, and high-efficiency energy.

**Social Bond**
A special-purpose bond aimed at raising funds for tackling social problems via support for SMEs, job creation, assistance for the underprivileged, and building social infrastructure.

**Sustainability Bond**
A special-purpose hybrid bond that combines many features of both green and social bonds, allowing it to be used for more versatile purposes.

### Allocation

**Eligible Green Categories**

<table>
<thead>
<tr>
<th>SDG 11</th>
<th>Amount Used (EUR)</th>
<th>Distribution rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Vehicle Battery</td>
<td>367 mil.</td>
<td>73.4%</td>
</tr>
</tbody>
</table>

**Eligible Social Categories**

<table>
<thead>
<tr>
<th>SDG 11</th>
<th>Amount Used (EUR)</th>
<th>Distribution rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support for the underprivileged</td>
<td>21 mil.</td>
<td>4.2%</td>
</tr>
<tr>
<td>Total Amount Allocated</td>
<td>388 mil.</td>
<td>77.6%</td>
</tr>
<tr>
<td>Leftover balance</td>
<td>112 mil.</td>
<td>22.4%</td>
</tr>
</tbody>
</table>


### Impact

#### Electric Vehicle Battery

<table>
<thead>
<tr>
<th>Project</th>
<th>Project CAPEX (EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="#">POSCO PosLX Demo Plant Construction</a></td>
<td>52 mil.</td>
</tr>
<tr>
<td><a href="#">POSCO Chemical Cathode material production line expansion (Gwangyang 3, 4 phases new expansion)</a></td>
<td>315 mil.</td>
</tr>
</tbody>
</table>

#### Total Investment

367 mil.

#### Support to Underprivileged

<table>
<thead>
<tr>
<th>Support from POSCO (EUR)</th>
<th>Employment of people with disabilities</th>
<th>Employment of People with Disabilities (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 mil.</td>
<td>313 people</td>
<td>48.1%</td>
</tr>
</tbody>
</table>

---

**In July 2019, POSCO became the first global steel company to issue 500 million USD in sustainability bonds. We followed this in January 2020 by becoming the first private enterprise in Korea to issue 500 million EUR in sustainability bonds. Through these efforts, we have shown our strong commitment to sustainable management goals and policies and have continued to do so. Our actions have caught the attention of various global ESG investors, resulting in POSCO’s continued acknowledgement for its efforts in ESG management. In 2020, this led to POSCO being selected for the Best Sustainability Bond (Corporate Section) category in the Triple-A Country Awards (North Asia) by The Asset.**
By entering the lithium rechargeable battery materials sector, we seek to secure our role as a corporate citizen in the coming era of global environmentally friendly policies and electric vehicles. POSCO is currently concentrating on rechargeable battery materials such as lithium and cathode and anode materials, as POSCO holds direct lithium extraction technology and has a relationship with global auto manufacturers. PosLX (POSCO Lithium extraction) is a lithium extraction technology unique to POSCO and can be utilized on both salt lakes and ores. Having secured high-quality brine from Argentina and ores from Australia, POSCO currently manufactures lithium hydroxide and lithium carbonate at the Gwangyang Demo Plant. The company also plans to build a brine-based lithium factory with a 25,000-ton capacity in Argentina and an ore-based plant with a 40,000-ton capacity in Korea. It will be capable of manufacturing 65,000 tons of battery-level lithium hydroxide and lithium carbonate on an annual basis. POSCO has also invested 70 billion KRW (52 million EUR) in building a brine-and-ore lithium processing and cathode R&D facility.

POSCO Chemical, which is a subsidiary of POSCO, is a rechargeable battery materials manufacturer that aims to become one of the global top-tier companies by expanding its output capacity and strengthening its overall business. POSCO, being the largest shareholder of POSCO Chemical, helped to finance an investment in the rechargeable battery material facility and assisted in developing its business strategy. POSCO invested 688 billion KRW in the recapitalization of POSCO Chemical in January 2021. About 421 billion KRW (315 million EUR) from the total investment will be used for the rechargeable battery materials business. POSCO Chemical will be announcing the breakdown of the funds used within its own quarterly report.

POSCO Humans is Korea’s first subsidiary-type standardized workplace that employs people with disabilities and acts as a social enterprise. The company hires underprivileged individuals such as the disabled and longtime unemployed who have difficulty finding jobs. POSCO was selected as a Top Employer for Hiring Disabled Talent in 2019 (Certification period: Sep. 30, 2019 - Sep. 29, 2022) by the Korea Employment Agency for the Disabled. As of the end of 2020, POSCO Humans had 313 (48.1%) employees with disabilities out of a total workforce of 651 employees. The number of employees with disabilities and respective employment rate rises every year. POSCO seeks to fulfill its role as a corporate citizen by socio-economically embracing all members of society regardless of disabilities, age, or gender.
## GRI

### GRI Standard No. Title ISO 26000 Pages and Notes

#### GRI 102: Foundation 2016

**General Disclosures**

<table>
<thead>
<tr>
<th>Organizational profile</th>
<th>GRI 102</th>
<th>Name of the organization</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>102-1</td>
<td>Activities, brands, products, and services</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>102-2</td>
<td>Location of headquarters</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>102-3</td>
<td>Location of operations</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>102-4</td>
<td>Ownership and legal form</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>102-5</td>
<td>Markets served</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>102-6</td>
<td>Scale of the organization</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>102-7</td>
<td>Information on employees and other workers</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>102-8</td>
<td>Supply chain</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>102-9</td>
<td>Significant changes to the organization and its supply chain</td>
<td>Factbook 5</td>
</tr>
<tr>
<td></td>
<td>102-10</td>
<td>Precautionary Principle or approach</td>
<td>55-60</td>
</tr>
<tr>
<td></td>
<td>102-11</td>
<td>External initiatives</td>
<td>Business Report pp. 9-19</td>
</tr>
<tr>
<td></td>
<td>102-12</td>
<td>Membership of associations</td>
<td>26-27</td>
</tr>
</tbody>
</table>

**Strategy**

<table>
<thead>
<tr>
<th>GRI 102</th>
<th>Statement from senior decision-maker</th>
<th>4.7, 6.2, 7.4.2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Key impacts, risks, and opportunities</td>
<td>6.2</td>
</tr>
</tbody>
</table>

**Ethics and integrity**

<table>
<thead>
<tr>
<th>GRI 102</th>
<th>Values, principles, standards, and norms of behavior</th>
<th>7.7.5, 4.4, 6.6.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mechanisms for advice and concerns about ethics</td>
<td>POSCO Charter of Corporate Citizenship, 7-84</td>
</tr>
</tbody>
</table>

**Governance**

<table>
<thead>
<tr>
<th>GRI 102</th>
<th>Governance structure</th>
<th>6.2, 7.4.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delegating authority</td>
<td>78-80</td>
</tr>
<tr>
<td></td>
<td>Executive-level responsibility for economic, environmental, and social topics</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>Consulting stakeholders on economic, environmental, and social topics</td>
<td>31-32, 79-81</td>
</tr>
<tr>
<td></td>
<td>Composition of the highest governance body and its committees</td>
<td>79-80</td>
</tr>
<tr>
<td></td>
<td>Chair of the highest governance body</td>
<td>79-80</td>
</tr>
<tr>
<td></td>
<td>Nominating and selecting the highest governance body</td>
<td>79-80</td>
</tr>
<tr>
<td></td>
<td>Conflicts of interest</td>
<td>79-80</td>
</tr>
<tr>
<td></td>
<td>Role of highest governance body in setting purpose, values, and strategy</td>
<td>79-80</td>
</tr>
<tr>
<td>GRI Standard</td>
<td>No.</td>
<td>Title</td>
</tr>
<tr>
<td>-------------</td>
<td>-----</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>GRI 102</td>
<td>102-27</td>
<td>Collective knowledge of highest governance body</td>
</tr>
<tr>
<td></td>
<td>102-28</td>
<td>Evaluating the highest governance body’s performance</td>
</tr>
<tr>
<td></td>
<td>102-29</td>
<td>Identifying and managing economic, environmental, and social impacts</td>
</tr>
<tr>
<td></td>
<td>102-30</td>
<td>Effectiveness of risk management processes</td>
</tr>
<tr>
<td></td>
<td>102-31</td>
<td>Review of economic, environmental, and social topics</td>
</tr>
<tr>
<td></td>
<td>102-32</td>
<td>Highest governance body’s role in sustainability reporting</td>
</tr>
<tr>
<td></td>
<td>102-33</td>
<td>Communicating critical concerns</td>
</tr>
<tr>
<td></td>
<td>102-34</td>
<td>Nature and total number of critical concerns</td>
</tr>
<tr>
<td></td>
<td>102-35</td>
<td>Remuneration policies</td>
</tr>
<tr>
<td></td>
<td>102-36</td>
<td>Process for determining remuneration</td>
</tr>
<tr>
<td></td>
<td>102-37</td>
<td>Stakeholders’ involvement in remuneration</td>
</tr>
<tr>
<td></td>
<td>102-38</td>
<td>Annual total compensation ratio</td>
</tr>
<tr>
<td></td>
<td>102-39</td>
<td>Percentage increase in annual total compensation ratio</td>
</tr>
</tbody>
</table>

**Stakeholder engagement**

| GRI 102     | 102-40 | List of stakeholder groups                                         | 5.3, 6.2  | 31             |
|             | 102-41 | Collective bargaining agreements                                   |           |                |
|             | 102-42 | Identifying and selecting stakeholders                             | 6.2, 6.7  | 31-32          |
|             | 102-43 | Approach to stakeholder engagement                                | 6.2, 6.7  | 28, 31, 42, 46, 69, 81 |
|             | 102-44 | Key topics and concerns raised                                     | 6.2, 6.7  | 28-29          |

**Reporting practice**

<p>| GRI 102     | 102-45 | Entities included in the consolidated financial statements         | 7.5.3, 7.6.2 | Business Report pp. 3-11 |
|             | 102-46 | Defining report content and topic Boundaries                        |           | 29             |
|             | 102-47 | List of material topics                                            |           |                |
|             | 102-48 | Restatements of information                                        |           | 37, 57, ESG Factbook 3, 4 |
|             | 102-49 | Changes in reporting                                               |           | N/A            |
|             | 102-50 | Reporting period                                                   |           | About this Report |
|             | 102-51 | Date of most recent report                                         |           | About this Report |
|             | 102-52 | Reporting cycle                                                    |           | Annually       |
|             | 102-53 | Contact point for questions regarding the report                   |           | About this Report |
|             | 102-54 | Claims of reporting in accordance with GRI Standards               |           | About this Report |
|             | 102-55 | GRI content index                                                  |           | 94-100         |
|             | 102-56 | External assurance                                                 | 7.5.3     | About this Report |</p>
<table>
<thead>
<tr>
<th>GRI Standard</th>
<th>No.</th>
<th>Title</th>
<th>ISO 26000</th>
<th>Pages and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economic Performance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 103 Management Approach</td>
<td>103-1</td>
<td>Explanation of the material topic and its boundary</td>
<td>6.2.3, 6.3.7, 6.3.10, 6.4.1, 6.4.3, 6.5.4, 6.5.5, 6.6.1</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>103-2</td>
<td>The management approach and its components</td>
<td>6.4.3</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>103-3</td>
<td>Evaluation of the management approach</td>
<td>6.5.5</td>
<td>12-13</td>
</tr>
<tr>
<td>GRI 201</td>
<td>201-1</td>
<td>Direct economic value generated and distributed</td>
<td>6.8.1, 6.8.2, 6.8.3, 6.8.7, 6.8.9</td>
<td>61-66</td>
</tr>
<tr>
<td></td>
<td>201-2</td>
<td>Financial implications and other risks and opportunities due to climate change</td>
<td>6.5.5</td>
<td>38, 50-53</td>
</tr>
<tr>
<td>GRI 203</td>
<td>203-1</td>
<td>Infrastructure investments and services supported</td>
<td>6.3.9, 6.8.1-6.8.2, 6.8.7, 6.8.9</td>
<td>61-66</td>
</tr>
<tr>
<td></td>
<td>203-2</td>
<td>Significant indirect economic impacts</td>
<td>6.3.9, 6.6.6-6.6.7, 6.7.8, 6.8.1-6.8.2, 6.8.5, 6.8.7, 6.8.9</td>
<td>61-66</td>
</tr>
<tr>
<td><strong>Procurement Practices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 204</td>
<td>204-1</td>
<td>Proportion of spending on local suppliers</td>
<td>6.6.1-6.6.3</td>
<td>84</td>
</tr>
<tr>
<td><strong>Anti-corruption</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 205</td>
<td>205-1</td>
<td>Operations assessed for risks related to corruption</td>
<td>6.6.1-6.6.3</td>
<td>50-57, 84</td>
</tr>
<tr>
<td></td>
<td>205-2</td>
<td>Communication and training about anti-corruption policies and procedures</td>
<td>6.6.1-6.6.3</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>205-3</td>
<td>Confirmed incidents of corruption and actions taken</td>
<td>6.6.1-6.6.3</td>
<td>None</td>
</tr>
<tr>
<td><strong>Anti-competitive Behavior</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 206</td>
<td>206-1</td>
<td>Legal actions for anti-competitive behavior, anti-trust, and monopoly practices</td>
<td>6.6.1-6.6.2, 6.6.5, 6.6.7</td>
<td>90-91</td>
</tr>
<tr>
<td><strong>Tax - Management Approach</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 207</td>
<td>207-1</td>
<td>Approach to tax</td>
<td>6.6.1</td>
<td>90-91</td>
</tr>
<tr>
<td></td>
<td>207-2</td>
<td>Tax governance, control, and risk management</td>
<td>6.6.1</td>
<td>90-91</td>
</tr>
<tr>
<td></td>
<td>207-3</td>
<td>Stakeholder engagement and management of concerns related to tax</td>
<td>6.6.1</td>
<td>90-91</td>
</tr>
<tr>
<td></td>
<td>207-4</td>
<td>Country-by-country reporting</td>
<td>6.6.1</td>
<td>None</td>
</tr>
<tr>
<td>GRI Standard</td>
<td>No.</td>
<td>Title</td>
<td>ISO 26000</td>
<td>Pages and Notes</td>
</tr>
<tr>
<td>--------------</td>
<td>-------</td>
<td>----------------------------------------------------------------------</td>
<td>-----------</td>
<td>-----------------</td>
</tr>
<tr>
<td><strong>Materials</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 301</td>
<td>103-1</td>
<td>Explanation of the material topic and its boundary</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>103-2</td>
<td>The management approach and its components</td>
<td>6.5.4</td>
<td>9–10, 19, 30, 43</td>
</tr>
<tr>
<td></td>
<td>103-3</td>
<td>Evaluation of the management approach</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>GRI 301</td>
<td>301-1</td>
<td>Materials used by weight or volume</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>301-2</td>
<td>Recycled input materials used</td>
<td>6.5.4</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>301-3</td>
<td>Reclaimed products and their packaging materials</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>Energy</strong></td>
<td></td>
<td></td>
<td>6.5.4</td>
<td></td>
</tr>
<tr>
<td>GRI 301</td>
<td>103-1</td>
<td>Explanation of the material topic and its boundary</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>103-2</td>
<td>The management approach and its components</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>103-3</td>
<td>Evaluation of the management approach</td>
<td>6.5.4</td>
<td>39</td>
</tr>
<tr>
<td>GRI 302</td>
<td>302-1</td>
<td>Energy consumption within the organization</td>
<td>6.5.4</td>
<td>11, 39, ESG Factbook 3, 9, 11</td>
</tr>
<tr>
<td></td>
<td>302-2</td>
<td>Energy consumption outside of the organization</td>
<td>6.5.4</td>
<td>ESG Factbook 3</td>
</tr>
<tr>
<td></td>
<td>302-3</td>
<td>Energy intensity</td>
<td>6.5.4</td>
<td>39–41</td>
</tr>
<tr>
<td></td>
<td>302-4</td>
<td>Reduction of energy consumption</td>
<td>6.5.4-5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>302-5</td>
<td>Reductions in energy requirements of products and services</td>
<td>6.5.4-5</td>
<td>39–41</td>
</tr>
<tr>
<td><strong>Water and Effluents</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 303</td>
<td>303-1</td>
<td>Interactions with water as a shared resource</td>
<td>6.5.4</td>
<td>45, ESG Factbook 1</td>
</tr>
<tr>
<td></td>
<td>303-2</td>
<td>Management of water discharge-related impacts</td>
<td>6.5.4</td>
<td>ESG Factbook 9, 11</td>
</tr>
<tr>
<td></td>
<td>303-3</td>
<td>Water withdrawal</td>
<td>6.5.4</td>
<td>45, ESG Factbook 1</td>
</tr>
<tr>
<td></td>
<td>303-4</td>
<td>Water discharge</td>
<td>6.5.4</td>
<td>ESG Factbook 1</td>
</tr>
<tr>
<td></td>
<td>303-5</td>
<td>Water consumption</td>
<td>6.5.4</td>
<td>ESG Factbook 1</td>
</tr>
<tr>
<td><strong>Biodiversity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 304</td>
<td>304-1</td>
<td>Operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas</td>
<td>6.5.6</td>
<td>23, 47</td>
</tr>
<tr>
<td></td>
<td>304-2</td>
<td>Significant impacts of activities, products, and services on biodiversity</td>
<td>6.5.6</td>
<td>23, 47</td>
</tr>
<tr>
<td></td>
<td>304-3</td>
<td>Habitats protected or restored</td>
<td>6.5.6</td>
<td>23, 47</td>
</tr>
<tr>
<td></td>
<td>304-4</td>
<td>IUCN Red List species and national conservation list species with habitats in areas affected by operations</td>
<td>6.5.6</td>
<td></td>
</tr>
<tr>
<td><strong>Emissions</strong></td>
<td></td>
<td></td>
<td>6.5.5</td>
<td></td>
</tr>
<tr>
<td>GRI 301</td>
<td>103-1</td>
<td>Explanation of the material topic and its boundary</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>103-2</td>
<td>The management approach and its components</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>103-3</td>
<td>Evaluation of the management approach</td>
<td>6.5.5</td>
<td></td>
</tr>
<tr>
<td>GRI 305</td>
<td>305-1</td>
<td>Direct (Scope 1) GHG emissions</td>
<td>6.5.5</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>305-2</td>
<td>Energy indirect (Scope 2) GHG emissions</td>
<td>6.5.5</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>305-3</td>
<td>Other indirect (Scope 3) GHG emissions</td>
<td>6.5.5</td>
<td>37</td>
</tr>
</tbody>
</table>

Note: ESG Factbook numbers are provided for internal references and may not be directly linked to external documentation.
<table>
<thead>
<tr>
<th>GRI Standard</th>
<th>No.</th>
<th>Title</th>
<th>ISO 26000</th>
<th>Pages and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRI 305</td>
<td>305-4</td>
<td>GHG emissions intensity</td>
<td>6.5.5</td>
<td>ESG Factbook 3</td>
</tr>
<tr>
<td></td>
<td>305-5</td>
<td>Reduction of GHG emissions</td>
<td>6.5.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>305-6</td>
<td>Emissions of ozone-depleting substances (ODS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>305-7</td>
<td>Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions</td>
<td>6.5.3</td>
<td>11, 44, ESG Factbook 1, 9, 11</td>
</tr>
<tr>
<td>Effluents and Waste</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 306</td>
<td>306-1</td>
<td>Water discharge by quality and destination</td>
<td>6.5.3-4</td>
<td>ESG Factbook 1</td>
</tr>
<tr>
<td></td>
<td>306-2</td>
<td>Waste by type and disposal method</td>
<td>6.5.3</td>
<td>ESG Factbook 2, 10, 12</td>
</tr>
<tr>
<td></td>
<td>306-3</td>
<td>Significant spills</td>
<td>6.5.3</td>
<td>No leaks occurred</td>
</tr>
<tr>
<td></td>
<td>306-4</td>
<td>Transport of hazardous waste</td>
<td>6.5.3</td>
<td>45, ESG Factbook 2</td>
</tr>
<tr>
<td></td>
<td>306-5</td>
<td>Water bodies affected by water discharges and/or runoff</td>
<td>6.5.3</td>
<td></td>
</tr>
<tr>
<td>Environmental Compliance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 307</td>
<td>307-1</td>
<td>Non-compliance with environmental laws and regulations</td>
<td>4.6</td>
<td>ESG Factbook 2</td>
</tr>
<tr>
<td>Supplier Environmental Assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 308</td>
<td>308-1</td>
<td>New suppliers that were screened using environmental criteria</td>
<td>6.3.5, 6.6.6, 7.3.1</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>308-2</td>
<td>Negative environmental impacts in the supply chain and actions taken</td>
<td>6.3.5, 6.6.6, 7.3.1</td>
<td>57</td>
</tr>
<tr>
<td>GRI 400 Social Series</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 401</td>
<td>401-1</td>
<td>New employee hires and employee turnover</td>
<td>6.4.3</td>
<td>ESG Factbook 5</td>
</tr>
<tr>
<td></td>
<td>401-2</td>
<td>Benefits provided to full-time employees that are not provided to temporary or part-time employees</td>
<td>6.4.4, 6.8.7</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>401-3</td>
<td>Parental leave</td>
<td>6.4.4</td>
<td>ESG Factbook 6</td>
</tr>
<tr>
<td>Labor/Management Relations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 402</td>
<td>402-1</td>
<td>Minimum notice periods regarding operational changes</td>
<td>6.4.3, 6.4.5</td>
<td></td>
</tr>
<tr>
<td>Management Approach - Occupational Health and Safety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 103</td>
<td>103-1</td>
<td>Explanation of the material topic and its boundary</td>
<td>6.4.6</td>
<td>29</td>
</tr>
<tr>
<td>Management Approach</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 403</td>
<td>403-1</td>
<td>Occupational health and safety management system</td>
<td>6.4.6</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>403-2</td>
<td>Hazard identification, risk assessment, and incident investigation</td>
<td>6.4.6, 6.8.8</td>
<td>68-69</td>
</tr>
<tr>
<td></td>
<td>403-3</td>
<td>Occupational health services</td>
<td>6.4.6</td>
<td>68-71</td>
</tr>
<tr>
<td></td>
<td>403-4</td>
<td>Worker participation, consultation, and communication on occupational health and safety</td>
<td>6.4.6, 6.8.8</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>403-5</td>
<td>Worker training on occupational health and safety</td>
<td>6.4.6</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>403-6</td>
<td>Promotion of worker health</td>
<td>6.4.6</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>403-7</td>
<td>Prevention and mitigation of occupational health and safety impacts directly linked by business relationships</td>
<td>6.4.6</td>
<td>56-57</td>
</tr>
<tr>
<td></td>
<td>403-8</td>
<td>Workers covered by an occupational health and safety management system</td>
<td>6.4.6</td>
<td>68-70</td>
</tr>
<tr>
<td></td>
<td>403-9</td>
<td>Work-related injuries</td>
<td>6.4.6</td>
<td>ESG Factbook 4, 10, 12</td>
</tr>
<tr>
<td></td>
<td>403-10</td>
<td>Work-related ill health</td>
<td>6.4.6</td>
<td>71</td>
</tr>
<tr>
<td>GRI Standard</td>
<td>No.</td>
<td>Title</td>
<td>ISO 26000</td>
<td>Pages and Notes</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------</td>
<td>--------------------------------------------------------------------------------------------</td>
<td>---------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Training and Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 303</td>
<td>103-1</td>
<td>Explanation of the material topic and its boundary</td>
<td>6.2.3, 6.3.7, 6.3.10,</td>
<td>29</td>
</tr>
<tr>
<td>Management Approach</td>
<td></td>
<td>The management approach and its components</td>
<td>6.4.3, 6.4.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>103-2</td>
<td></td>
<td></td>
<td>9-10, 19, 30, 72</td>
</tr>
<tr>
<td></td>
<td>103-3</td>
<td>Evaluation of the management approach</td>
<td>ESG Factbook 5</td>
<td></td>
</tr>
<tr>
<td>GRI 404</td>
<td>404-1</td>
<td>Average hours of training per year per employee</td>
<td>6.3.6, 6.3.10, 6.4.3,</td>
<td>72-74</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Programs for upgrading employee skills and transition assistance programs</td>
<td>6.4.4, 6.4.7, 6.8.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>404-3</td>
<td>Percentage of employees receiving regular performance and career development reviews</td>
<td>6.4, 6.4.6</td>
<td>74</td>
</tr>
<tr>
<td>Diversity and Equal Opportunity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 405</td>
<td>405-1</td>
<td>Diversity of governance bodies and employees</td>
<td>6.2.3, 6.3.7, 6.3.10, 6.4.3</td>
<td>79, ESG Factbook 7</td>
</tr>
<tr>
<td></td>
<td>405-2</td>
<td>Ratio of basic salary and remuneration of women to men</td>
<td>6.3.7, 6.3.10, 6.4.3, 6.4.4</td>
<td>Business Report pp. 441-442</td>
</tr>
<tr>
<td>Non-discrimination</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 406</td>
<td>406-1</td>
<td>Incidents of discrimination and corrective actions taken</td>
<td>6.3.6, 6.3.7, 6.3.10, 6.4.3</td>
<td>84, 86</td>
</tr>
<tr>
<td>Freedom of Association and Collective Bargaining</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 407</td>
<td>407-1</td>
<td>Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk</td>
<td>6.3.3, 6.3.4, 6.3.5, 6.3.8, 6.3.10, 6.4.5, 6.6.6</td>
<td>76</td>
</tr>
<tr>
<td>Child Labor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 408</td>
<td>408-1</td>
<td>Operations and suppliers at significant risk for incidents of child labor</td>
<td>6.3.3, 6.3.4, 6.3.5, 6.3.7, 6.3.10, 6.6.6, 6.8.4</td>
<td>57, 59, 86</td>
</tr>
<tr>
<td>Forced or Compulsory Labor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 409</td>
<td>409-1</td>
<td>Operations and suppliers at significant risk for incidents of forced or compulsory labor</td>
<td>6.3.3, 6.3.4, 6.3.5, 6.3.7, 6.3.10, 6.6.6, 6.8.4</td>
<td>86</td>
</tr>
<tr>
<td>Security Practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 410</td>
<td>410-1</td>
<td>Security personnel trained in human rights policies or procedures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rights of Indigenous Peoples</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 411</td>
<td>411-1</td>
<td>Incidents of violations involving rights of indigenous peoples</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Human Rights Assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 412</td>
<td>412-1</td>
<td>Operations that have been subject to human rights reviews or impact assessments</td>
<td>6.3.3-6.3.6</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>412-2</td>
<td>Employee training on human rights policies or procedures</td>
<td>6.3.3-6.3.6</td>
<td>83-85</td>
</tr>
<tr>
<td></td>
<td>412-3</td>
<td>Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Communities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 413</td>
<td>413-1</td>
<td>Operations with local community engagement, impact assessments, and development programs</td>
<td>6.3.9, 6.5.1-6.5.3, 6.8</td>
<td>61-62</td>
</tr>
<tr>
<td></td>
<td>413-2</td>
<td>Operations with significant actual and potential negative impacts on local communities</td>
<td>6.0, ESG Factbook 10, 12</td>
<td></td>
</tr>
<tr>
<td>GRI Standard</td>
<td>No.</td>
<td>Title</td>
<td>ISO 26000</td>
<td>Pages and Notes</td>
</tr>
<tr>
<td>--------------</td>
<td>-----</td>
<td>-------</td>
<td>-----------</td>
<td>----------------</td>
</tr>
<tr>
<td>Supplier Social Assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 414</td>
<td>414-1</td>
<td>New suppliers that were screened using social criteria</td>
<td>6.3.5, 6.6.1-6.6.2, 6.6.6, 6.8.1-6.8.2, 7.3.1</td>
<td>56-57</td>
</tr>
<tr>
<td></td>
<td>414-2</td>
<td>Negative social impacts in the supply chain and actions taken</td>
<td>6.3.5, 6.6.1-6.6.2, 6.6.6, 6.8.1-6.8.2, 7.3.1</td>
<td>57</td>
</tr>
<tr>
<td>Public Policy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 415</td>
<td>415-1</td>
<td>Political contributions</td>
<td>6.6.1-6.6.2, 6.6.4</td>
<td>No political donations</td>
</tr>
<tr>
<td>Customer Health and Safety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 416</td>
<td>416-1</td>
<td>Assessment of the health and safety impacts of product and service categories</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>416-2</td>
<td>Incidents of non-compliance concerning the health and safety impacts of products and services</td>
<td>6.7.4</td>
<td>None(^1)</td>
</tr>
<tr>
<td>Marketing and Labeling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 417</td>
<td>417-1</td>
<td>Requirements for product and service information and labeling</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>417-2</td>
<td>Incidents of non-compliance concerning product and service information and labeling</td>
<td>4.6, 6.7.1-6.7.5, 6.7.9</td>
<td>None(^1)</td>
</tr>
<tr>
<td></td>
<td>417-3</td>
<td>Incidents of non-compliance concerning marketing communications</td>
<td>4.6, 6.7.1-6.7.3</td>
<td>None(^1)</td>
</tr>
<tr>
<td>Customer Privacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 418</td>
<td>418-1</td>
<td>Substantiated complaints concerning breaches of customer privacy and losses of customer data</td>
<td>6.7.1-6.7.2, 6.7.7</td>
<td>No complaint cases</td>
</tr>
<tr>
<td>Socioeconomic Compliance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 419</td>
<td>419-1</td>
<td>Non-compliance with laws and regulations in the social and economic areas</td>
<td>4.6, 6.7.1-6.7.2, 6.7.6</td>
<td>Business Report pp. 498-500</td>
</tr>
</tbody>
</table>

\(^1\) Limited to Business Report pp. 498-500
ESG FACTBOOK

This ESG Factbook was based on data from POSCO’s domestic worksites and verified by a third-party along with the 2020 Corporate Citizenship Report.
### Environmental

#### Indicator

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSCO Crude Steel Output</td>
<td>thousand tons</td>
<td>37,207</td>
<td>37,735</td>
<td>38,007</td>
<td>35,935</td>
</tr>
</tbody>
</table>

#### Air

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute dust emissions</td>
<td>thousand tons</td>
<td>3.3</td>
<td>3.2</td>
<td>3.5</td>
<td>0.3</td>
</tr>
<tr>
<td>Dust intensity (per output)</td>
<td>kg/t-crude steel</td>
<td>0.09</td>
<td>0.09</td>
<td>0.09</td>
<td>0.01</td>
</tr>
<tr>
<td>Absolute NOx emissions</td>
<td>thousand tons</td>
<td>36.1</td>
<td>39.2</td>
<td>41.0</td>
<td>40.7</td>
</tr>
<tr>
<td>NOx intensity (per output)</td>
<td>kg/t-crude steel</td>
<td>0.97</td>
<td>1.04</td>
<td>1.08</td>
<td>1.13</td>
</tr>
<tr>
<td>Absolute SOx emissions</td>
<td>thousand tons</td>
<td>25.0</td>
<td>24.2</td>
<td>23.2</td>
<td>24.9</td>
</tr>
<tr>
<td>SOx intensity (per output)</td>
<td>kg/t-crude steel</td>
<td>0.67</td>
<td>0.64</td>
<td>0.61</td>
<td>0.69</td>
</tr>
</tbody>
</table>

#### Water

<table>
<thead>
<tr>
<th>Water withdrawal</th>
<th>million m³</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treated urban sewage water</td>
<td>million m³</td>
<td>29.2</td>
<td>28.6</td>
<td>28.1</td>
<td>28.6</td>
</tr>
<tr>
<td>Desalinated water</td>
<td>million m³</td>
<td>8.1</td>
<td>7.2</td>
<td>7.3</td>
<td>7.7</td>
</tr>
<tr>
<td>Surface water (rivers, dams)</td>
<td>million m³</td>
<td>96.2</td>
<td>97.0</td>
<td>100.0</td>
<td>93.3</td>
</tr>
<tr>
<td>Underground water</td>
<td>million m³</td>
<td>6.6</td>
<td>6.6</td>
<td>5.9</td>
<td>6.7</td>
</tr>
<tr>
<td>Water intensity (per crude steel output)</td>
<td>kg/t-crude steel</td>
<td>3.70</td>
<td>3.70</td>
<td>3.74</td>
<td>3.80</td>
</tr>
</tbody>
</table>

1) In accordance with the Special Act on the Improvement of Air Quality in Air Control Zones, the facilities subject to air emission calculations have been changed

2) Indicating total water withdrawal – wastewater discharge according to GRI Standards

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

---

**Notes:**

- **Environmental**: 
  - Water withdrawal
  - Water intensity (per crude steel output)

- **Air**: 
  - Absolute dust emissions
  - Absolute NOx emissions
  - Absolute SOx emissions

- **Written Verification Opinion**
## Environmental

### Indicator | Unit | 2017 | 2018 | 2019 | 2020
---|---|---|---|---|---
Total waste generated \(^1\) | tons | 10,587,757 | 11,295,560 | 16,713,940 | 21,974,669
Total waste recycled | tons | 10,201,434 | 10,892,423 | 16,312,607 | 21,662,981
Total waste disposed (incineration and landfill) | tons | 386,323 | 401,117 | 311,333 | 311,688
Percentage of hazardous waste | % | 1.5 | 0.9 | 0.6 | 0.4

1) Granulated slag-producing facilities were reclassified as waste-recycling facilities in reflection of the governmental interpretation of waste that was redefined in 2019. The amount of granulated slag excluded until 2018 was included in the calculation of waste for reporting purposes.

### Resource Recycling

| Indicator | Unit | 2017 | 2018 | 2019 | 2020 |
---|---|---|---|---|---|
Recycled blast furnace slag | tons | 12,039,635 | 12,239,286 | 12,450,191 | 11,998,028 |
Granulated slag | tons | 11,191,012 | 10,228,377 | 10,625,781 | 10,810,459 |
Fertilizer | tons | 257,019 | 259,484 | 260,406 | 277,349 |
Palletized slag | tons | 637,603 | 1,251,471 | 1,544,005 | 910,220 |
CO\(_2\) avoided from slag re-use in the cement industry\(^1\) | thousand tCO\(_2\) | 8,596 | 8,392 | 8,311 | 8,486 |
Reused production residue and by-products | % | 98.4 | 98.3 | 98.3 | 98.8 |

1) By applying the theoretical ratio of which CaO, the main component of cement clinker, is converted to CO\(_2\), the CO\(_2\) reduction result for every 1 ton of clinker being replaced by 1 ton of granulated slag has been calculated as 0.785 t-CO\(_2\)/t-Clinker.

### Management

| Indicator | 2017 | 2018 | 2019 | 2020 |
---|---|---|---|---|
Adoption of ISO 50001 (Energy Management System Certification) percentage | % | 100 | 100 | 100 | 100 |
No. of certified worksites | worksites | 2 | 2 | 2 | 2 |
No. of certification target worksites | worksites | 2 | 2 | 2 | 2 |
Adoption of ISO 14001 (Environmental Management System Certification) percentage | % | 100 | 100 | 100 | 100 |
No. of certified worksites | worksites | 2 | 2 | 2 | 2 |
No. of certification target worksites | worksites | 2 | 2 | 2 | 2 |
No. of violations of legal obligations\(^1\) | cases | 1 | 10 | 8 | 5 |
Amount of green purchases (million KRW) | | 267,721 | 320,014 | 315,892 | 279,686 |

1) Number of violations of legal obligations according to POSCO’s Corporate Report
Environmental

### Energy

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy consumption</td>
<td>GJ</td>
<td>374,858,713</td>
<td>378,728,730</td>
<td>382,845,859</td>
<td>374,874,610</td>
</tr>
<tr>
<td>Direct energy</td>
<td>Natural gas</td>
<td>GJ</td>
<td>42,841,873</td>
<td>41,384,234</td>
<td>45,885,941</td>
</tr>
<tr>
<td></td>
<td>Diesel</td>
<td>GJ</td>
<td>174,541</td>
<td>170,094</td>
<td>181,292</td>
</tr>
<tr>
<td></td>
<td>Gasoline</td>
<td>GJ</td>
<td>10,942</td>
<td>10,866</td>
<td>12,732</td>
</tr>
<tr>
<td></td>
<td>Vehicle LPG</td>
<td>GJ</td>
<td>174</td>
<td>167</td>
<td>132</td>
</tr>
<tr>
<td>Indirect energy (electricity)</td>
<td>Electricity</td>
<td>GJ</td>
<td>8,550,171</td>
<td>8,545,433</td>
<td>6,300,216</td>
</tr>
<tr>
<td>Renewable energy</td>
<td>GJ</td>
<td>0</td>
<td>119</td>
<td>219</td>
<td>318</td>
</tr>
<tr>
<td>Retrieved and reused on-site energy</td>
<td>Off-gas</td>
<td>GJ</td>
<td>322,281,012</td>
<td>328,671,817</td>
<td>330,463,327</td>
</tr>
<tr>
<td>Energy intensity (per output)</td>
<td>GJ/t-crude steel</td>
<td>10.1</td>
<td>10.0</td>
<td>10.1</td>
<td>10.4</td>
</tr>
<tr>
<td>Percentage of off-gas in consumed fuel</td>
<td>%</td>
<td>86.2</td>
<td>86.8</td>
<td>86.3</td>
<td>84.7</td>
</tr>
<tr>
<td>Percentage of natural gas in consumed fuel</td>
<td>%</td>
<td>11.4</td>
<td>10.9</td>
<td>12.0</td>
<td>14.1</td>
</tr>
<tr>
<td>Percentage of electricity in consumed fuel</td>
<td>%</td>
<td>2.3</td>
<td>2.3</td>
<td>1.6</td>
<td>1.2</td>
</tr>
<tr>
<td>Renewable energy sales</td>
<td>GJ</td>
<td>17,834</td>
<td>16,315</td>
<td>16,012</td>
<td>16,287</td>
</tr>
</tbody>
</table>

### GHG

<table>
<thead>
<tr>
<th>GHG emissions (Scope 1 &amp; 2)</th>
<th>tCO₂e</th>
<th>76,741,041</th>
<th>78,498,443</th>
<th>80,263,890</th>
<th>75,649,882</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1 (direct emissions)</td>
<td>tCO₂e</td>
<td>75,631,360</td>
<td>77,391,479</td>
<td>79,447,924</td>
<td>75,069,656</td>
</tr>
<tr>
<td>Scope 2 (indirect emissions)</td>
<td>tCO₂e</td>
<td>1,107,681</td>
<td>1,006,964</td>
<td>815,966</td>
<td>580,216</td>
</tr>
<tr>
<td>GHG emissions (Scope 3)</td>
<td>tCO₂e</td>
<td>18,044,000</td>
<td>18,930,000</td>
<td>13,199,000</td>
<td>11,951,000</td>
</tr>
<tr>
<td>GHG intensity (per output)</td>
<td>tCO₂e/t-crude steel</td>
<td>2.06</td>
<td>2.08</td>
<td>2.11</td>
<td>2.11</td>
</tr>
</tbody>
</table>

1) The above-listed data covers Pohang Works and Gwangyang Works only, which may lead to discrepancies from the inventory data submitted to the government that covers all worksites
2) Changes made in GHG-emission calculations may lead to discrepancies with the 2019 Corporate Citizenship Report
3) Emissions that were ultimately reported to the government after third-party verification but subject to change according to the government’s final assessment results
## Social

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injured employees (total)</td>
<td>persons</td>
<td>8</td>
<td>18</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Injured employees (direct employees)</td>
<td>persons</td>
<td>4</td>
<td>6</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Injured employees (contractors)</td>
<td>persons</td>
<td>4</td>
<td>12</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Injury rate (total)</td>
<td>%</td>
<td>0.03</td>
<td>0.06</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>Injury rate (direct employees)</td>
<td>%</td>
<td>0.02</td>
<td>0.04</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>Injury rate (contractors)</td>
<td>%</td>
<td>0.01</td>
<td>0.09</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td>Fatalities (total)</td>
<td>persons</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Fatalities (direct employees)</td>
<td>persons</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Fatalities (contractors)</td>
<td>persons</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Fatality rate (total)</td>
<td>%</td>
<td>0.00</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Fatality rate (direct employees)</td>
<td>%</td>
<td>0.00</td>
<td>0.03</td>
<td>0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>Fatality rate (contractors)</td>
<td>%</td>
<td>0.00</td>
<td>0.04</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>Percentage of health and safety management system certifications (ISO 45001) (general)</td>
<td>%</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>No. of certified worksites</td>
<td>worksites</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>No. of certification target worksites</td>
<td>worksites</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

1) The above-listed numbers of injured employees, including the injury rate, total recordable injury frequency rate, and lost-time injury rate, were based on the data of direct employees and primary contractors. With the inclusion of direct employees, primary contractors, and relevant contractor, the number of annual injured employees would be as follows:

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>persons</td>
<td>8</td>
<td>18</td>
<td>21</td>
<td>21</td>
</tr>
</tbody>
</table>

2) The above numbers of injured employees, including the fatality rate and lost-time injury frequency rate, were based on the data of direct employees and primary contractors. With the inclusion of direct employees, primary contractors, and relevant contractor, the number of annual fatalities would be as follows:

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>persons</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

3) The 2019 Corporate Citizenship Report specifies this as 4 persons, but due to 2 additional cases verified as industrial accidents, the final number was increased to 6 persons.

- (1) 1 additional industrial accident case due to revised KOSHA regulations
- (2) 1 additional case due to approval of a post-accident change of incident status

4) Due to revisions in the Occupational Safety and Health Act in 2020, statistical standards have been expanded to include relevant contractors, leading to additions made to total accident cases, and making the total number of injured employees higher than what was published in the 2019 Corporate Citizenship Report.
Social

### Indicators and Data

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of total executives and employees</td>
<td>persons</td>
<td>17,122</td>
<td>17,221</td>
<td>17,574</td>
<td>17,937</td>
</tr>
<tr>
<td>No. of executives</td>
<td>persons</td>
<td>67</td>
<td>71</td>
<td>71</td>
<td>76</td>
</tr>
<tr>
<td>No. of employees</td>
<td>persons</td>
<td>17,055</td>
<td>17,150</td>
<td>17,503</td>
<td>17,863</td>
</tr>
<tr>
<td>Permanent positions</td>
<td>persons</td>
<td>16,885</td>
<td>16,899</td>
<td>17,299</td>
<td>17,665</td>
</tr>
<tr>
<td>Temporary positions</td>
<td>persons</td>
<td>170</td>
<td>251</td>
<td>204</td>
<td>198</td>
</tr>
<tr>
<td>Years of service</td>
<td>years</td>
<td>19.8</td>
<td>19.9</td>
<td>19.6</td>
<td>19.1</td>
</tr>
<tr>
<td>No. of new hires</td>
<td>persons</td>
<td>768</td>
<td>886</td>
<td>1,026</td>
<td>701</td>
</tr>
<tr>
<td>Percentage of open positions filled by internal candidates</td>
<td>%</td>
<td>99.5</td>
<td>99.8</td>
<td>98.3</td>
<td>99.3</td>
</tr>
<tr>
<td>Hiring costs</td>
<td>KRW</td>
<td>761,225,208</td>
<td>756,146,931</td>
<td>1,074,507,644</td>
<td>902,484,594</td>
</tr>
<tr>
<td>Voluntary resignation rate</td>
<td>%</td>
<td>1.55</td>
<td>1.67</td>
<td>1.69</td>
<td>1.26</td>
</tr>
<tr>
<td>Total turnover</td>
<td>persons</td>
<td>272</td>
<td>660</td>
<td>669</td>
<td>817</td>
</tr>
<tr>
<td>No. of retirees</td>
<td>persons</td>
<td></td>
<td>356</td>
<td>355</td>
<td>578</td>
</tr>
<tr>
<td>Manager turnover rate</td>
<td>%</td>
<td>0.80</td>
<td>1.21</td>
<td>1.37</td>
<td>1.37</td>
</tr>
<tr>
<td>Employee satisfaction</td>
<td>points</td>
<td>78</td>
<td>67</td>
<td>86</td>
<td>89</td>
</tr>
<tr>
<td>No. of strikes exceeding one week in duration</td>
<td>cases</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
</tbody>
</table>

### Training

<table>
<thead>
<tr>
<th>Training indicator</th>
<th>Unit</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training expenses per employee</td>
<td>million KRW</td>
<td>1.30</td>
<td>1.46</td>
<td>1.63</td>
<td>1.21</td>
</tr>
<tr>
<td>Total employee training costs (education and training costs)</td>
<td>million KRW</td>
<td>22,216</td>
<td>25,210</td>
<td>28,569</td>
<td>21,681</td>
</tr>
<tr>
<td>Training hours per employee</td>
<td>hours</td>
<td>100</td>
<td>94</td>
<td>89</td>
<td>78</td>
</tr>
<tr>
<td>Total training hours</td>
<td>hours</td>
<td>1,704,253</td>
<td>1,613,974</td>
<td>1,556,680</td>
<td>1,397,942</td>
</tr>
</tbody>
</table>

### Pension Subsidies

<table>
<thead>
<tr>
<th>Pension Subsidies</th>
<th>Unit</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>National pension (company contribution)</td>
<td>million KRW</td>
<td>39,820</td>
<td>41,465</td>
<td>43,210</td>
<td>44,917</td>
</tr>
<tr>
<td>Personal pension subsidies</td>
<td>million KRW</td>
<td>8,049</td>
<td>5,625</td>
<td>2,803</td>
<td>2,732</td>
</tr>
<tr>
<td>No. of personal pension beneficiaries</td>
<td>persons</td>
<td>6,478</td>
<td>6,759</td>
<td>4,354</td>
<td>4,769</td>
</tr>
</tbody>
</table>
## Social

### Indicator

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female share of total workforce</td>
<td>%</td>
<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Females in managerial positions or higher</td>
<td>%</td>
<td>10.8</td>
<td>11.6</td>
<td>12.2</td>
<td>12.7</td>
</tr>
<tr>
<td>Females in top management positions (including directors)</td>
<td>%</td>
<td>1.4</td>
<td>1.3</td>
<td>2.6</td>
<td>3.7</td>
</tr>
<tr>
<td>Females in junior management positions</td>
<td>%</td>
<td>23.0</td>
<td>24.3</td>
<td>23.5</td>
<td>23.9</td>
</tr>
<tr>
<td>Female employees in managerial positions and revenue-generating roles</td>
<td>%</td>
<td>14.0</td>
<td>15.9</td>
<td>19.2</td>
<td>20.0</td>
</tr>
<tr>
<td>Employees with disabilities</td>
<td>%</td>
<td>2.8</td>
<td>2.9</td>
<td>3.0</td>
<td>3.3</td>
</tr>
</tbody>
</table>

1) Percentage of female employees vs. total number of employees
2) Calculation criteria revised from junior manager to manager, which may lead to discrepancies with the 2019 Corporate Citizenship Report that set the criteria as junior manager
3) Percentage of female employees with a management or higher position in the Marketing Division

### Work-Life Balance

| Total number of employees who took childcare leave | persons | 87    | 75    | 12    | 103   | 97   |
| Female employees who took childcare leave          | persons | 75    | 53    | 23    | 70    | 52   |
| Male employees who took childcare leave            | persons | 12    | 23    | 33    | 33    | 45   |
| Reinstatement after taking childcare leave         | %       | 87.7  | 91.3  | 91.4  | 95.5  |
| Reinstated employees after childcare leave         | persons | 71    | 94    | 106   | 127   |
| Reinstated target employees after taking childcare leave | persons | 81    | 103   | 116   | 133   |

### Social Contribution

| Community investment spending | million KRW | 88,611 | 48,850 | 48,841 | 34,089 |
| Volunteer hours per employee  | hours       | 31     | 27     | 27     | 17.9   |

### Customer Satisfaction

<table>
<thead>
<tr>
<th>Comprehensive</th>
<th>points (100-point scale)</th>
<th>81</th>
<th>82</th>
<th>84</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>points (100-point scale)</td>
<td>85</td>
<td>89</td>
<td>90</td>
</tr>
<tr>
<td>International</td>
<td>points (100-point scale)</td>
<td>78</td>
<td>76</td>
<td>78</td>
</tr>
</tbody>
</table>
### Governance

#### Board of Directors Composition

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of executive directors</td>
<td>persons</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>No. of independent directors</td>
<td>persons</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>No. of other non-executive directors</td>
<td>persons</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Board of Directors Management

<table>
<thead>
<tr>
<th>Indicator</th>
<th>%</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average board meeting attendance rate</td>
<td>100</td>
<td>99</td>
<td>100</td>
<td>98</td>
<td></td>
</tr>
<tr>
<td>Average tenure of directors in years&lt;sup&gt;8&lt;/sup&gt;</td>
<td>years</td>
<td>2.5</td>
<td>2.9</td>
<td>2.8</td>
<td>3.8</td>
</tr>
</tbody>
</table>

<sup>1</sup> Those serving as a director, auditor, or executive at more than two other companies, in addition to the listed company in concern, are limited from serving as an independent director per Article 34 of the Commercial Act.

<sup>2</sup> Those who serve as an independent director for more than six years at listed companies, or for more than nine years at listed companies and their affiliates, should be disqualified as an independent director at the listed companies in concern per Clause 5, Article 34 of the Commercial Act.

<sup>3</sup> Tenure calculated from April 2021

#### Board of Directors Performance Evaluation

<table>
<thead>
<tr>
<th>Indicator</th>
<th>years</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longest performance evaluation period covered</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>by executive compensation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longest performance evaluation period covered</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>by CEO compensation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Share Ownership

<table>
<thead>
<tr>
<th>Indicator</th>
<th>multiples</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share ownership multiples of CEO compared to base salary</td>
<td>0.24</td>
<td>0.25</td>
<td>0.24</td>
<td>0.46</td>
<td></td>
</tr>
<tr>
<td>Average share ownership multiples of executives compared to base salary</td>
<td>0.21</td>
<td>0.23</td>
<td>0.31</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>Percentage of share ownership over 5% by government agencies</td>
<td>%</td>
<td>11.08</td>
<td>10.72</td>
<td>11.80</td>
<td>11.75</td>
</tr>
<tr>
<td>Percentage of share ownership over 5% by founders and family</td>
<td>%</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

#### Compensation

<table>
<thead>
<tr>
<th>Indicator</th>
<th>KRW</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total CEO compensation&lt;sup&gt;1&lt;/sup&gt;</td>
<td>2,473</td>
<td>2017</td>
<td>1,763</td>
<td>1,578</td>
<td>1,592</td>
</tr>
<tr>
<td>Average compensation of all employees (excluding CEO)</td>
<td>KRW</td>
<td>90</td>
<td>98</td>
<td>97</td>
<td>98</td>
</tr>
<tr>
<td>Total CEO compensation/average employee compensation</td>
<td>multiples</td>
<td>27.48</td>
<td>12</td>
<td>16.7</td>
<td>19.7</td>
</tr>
</tbody>
</table>

<sup>1</sup> Salary registered with the exclusion of retirement grants
<sup>2</sup> Salary paid in January–March, August–December
<sup>3</sup> Including a three-years-worth lump sum payment as long-term incentive in 2020 (for 2017–2019)

### Current Status of Membership Fees and Donations

In compliance with POSCO’s Corporate Citizenship Charter, the Code of Ethics, Anti-Corruption Compliance Guidelines, and Korea’s Political Funds Act, donations and sponsorships made through corporate assets or political budgets are strictly prohibited. In accordance with Board regulations, the ESG Committee is obligated to examine and make decisions on donations between 100 million KRW and 1 billion KRW. The ESG Committee is also obligated to perform preliminary reviews on donations exceeding 1 billion KRW before they are finalized by the Board.

#### Current Status of External Donations

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount (2020, amounts over 1 billion KRW)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 damage relief fund</td>
<td>5 billion KRW (4 billion KRW from POSCO, 1 billion KRW from Group affiliates)</td>
<td>Decided by the Board on March 27, 2020</td>
</tr>
<tr>
<td>Flood damage restoration aid</td>
<td>1 billion KRW (0.6 billion KRW from POSCO, 0.4 billion KRW from Group affiliates)</td>
<td>Decided by the Board on November 6, 2020</td>
</tr>
<tr>
<td>Year-end disadvantaged neighbor aid</td>
<td>10 billion KRW (8 billion KRW from POSCO, 2 billion KRW from Group affiliates)</td>
<td>Decided by the Board on December 11, 2020</td>
</tr>
</tbody>
</table>

#### Amount of Membership Fees Paid

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount (2017–2019, Unit: one thousand KRW)</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax-exempt group (nonprofits, etc)</td>
<td>6,405,343</td>
<td>2017</td>
</tr>
<tr>
<td>Lobbying/interest representation</td>
<td>3,180</td>
<td>2018</td>
</tr>
<tr>
<td>Political campaigns/organizations</td>
<td>0</td>
<td>2019</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>2020</td>
</tr>
</tbody>
</table>

#### Major Associations and Membership Fees Paid

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Amount of Paid Fees</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea Iron &amp; Steel Association (KOSA)</td>
<td>2,474,009</td>
<td></td>
</tr>
<tr>
<td>World Steel Association (WSA)</td>
<td>950,000</td>
<td></td>
</tr>
<tr>
<td>Korea Employers Federation (KEF)</td>
<td>318,050</td>
<td></td>
</tr>
</tbody>
</table>

<sup>* Purpose of Participation in Organization</sup>

1) KOSA: To promote global competitiveness and sustainability of the steel industry
2) WSA: To promote the global steel industry and collect/analyze data of steel companies
3) KEF: To support cooperative relationships between management and labor
## TCFD

<table>
<thead>
<tr>
<th>TCFD Recommended Disclosures</th>
<th>POSCO’s Response</th>
<th>CDP Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Governance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Describe the board’s oversight of climate-related risks and opportunities</td>
<td>p. 79 (ESG Committee), p. 81 (Corporate Citizenship Committee), 2020 Corporate Citizenship Report</td>
<td>CDP_C1.1</td>
</tr>
<tr>
<td>b) Describe management’s role in assessing and managing climate-related risks and opportunities</td>
<td>p. 43 (Environmental organizational chart), p. 37 (Management system), 2020 Corporate Citizenship Report</td>
<td>CDP_C1.2</td>
</tr>
<tr>
<td><strong>Strategy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term</td>
<td>pp. 36–42 (Climate change response), 2020 Corporate Citizenship Report</td>
<td>CDP_C2.1, C2.2c, C2.3a, C2.4a, C3.1c</td>
</tr>
<tr>
<td>b) Describe the impact of climate-related risks and opportunities on the organization’s business, strategy, and financial planning</td>
<td>pp. 36–42 (Climate change response), 2020 Corporate Citizenship Report</td>
<td>CDP_C2.3, C2.5, C2.6, C3.1a</td>
</tr>
<tr>
<td>c) Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario</td>
<td>p. 38 (1.5°C Climate change scenario), 2020 Corporate Citizenship Report</td>
<td>CDP_C3.1a</td>
</tr>
<tr>
<td><strong>Risk Management</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Describe the organization’s processes for identifying and assessing climate-related risks</td>
<td>pp. 36–42 (Climate change response), 2020 Corporate Citizenship Report</td>
<td>CDP_C1.2a, C2.2b</td>
</tr>
<tr>
<td>b) Describe the organization’s processes for managing climate-related risks</td>
<td>pp. 36–42 (Climate change response), 2020 Corporate Citizenship Report</td>
<td>CDP_C2.2a</td>
</tr>
<tr>
<td>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization’s overall risk management</td>
<td>pp. 36–42 (Climate change response), 2020 Corporate Citizenship Report</td>
<td>CDP_C2.2</td>
</tr>
<tr>
<td><strong>Metrics and Targets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process</td>
<td>p. 30 (ESG key issues and response status), p. 37 (CO₂ emission volume and emission source units), 2020 Corporate Citizenship Report</td>
<td>CDP_C4.1b</td>
</tr>
<tr>
<td>b) GHG emissions and relevant risks disclosed when Scope 1, 2 and Scope 3 are applicable</td>
<td>p. 3 (Environmental GHG), pp. 36–42 (Climate change response), ESG Factbook</td>
<td>CDP_C5.1, C6.1, C6.3, C6.5</td>
</tr>
<tr>
<td>c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets</td>
<td>p. 30 (ESG key issues and response status), pp. 36–42 (Climate change response)</td>
<td>CDP_C4.1b</td>
</tr>
</tbody>
</table>
### Greenhouse Gas Emissions

**SASB Code**: EM-IS-110a.1, EM-IS-110a.2

**Category**: Quantitative

**Unit**: metric tons (t), percentage (%)

<table>
<thead>
<tr>
<th>Accounting Metric</th>
<th>POSCO's Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Gross global Scope 1 emissions,</td>
<td>(1) 75,069,656</td>
</tr>
<tr>
<td>(2) Percentage covered under emissions-limiting regulations</td>
<td>(2) 100%</td>
</tr>
</tbody>
</table>

### Air Emissions

**SASB Code**: EM-IS-120a.1, EM-IS-120a.2

**Category**: Quantitative

**Unit**: metric tons (t)

<table>
<thead>
<tr>
<th>Air Emissions</th>
<th>POSCO's Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) NOx (excluding N₂O)</td>
<td>40,700</td>
</tr>
<tr>
<td>(2) SOx</td>
<td>24,900</td>
</tr>
<tr>
<td>(3) particulate matter (PM10)</td>
<td>POSCO manages PM10 on a Total Suspended Particles (TSP) standard, while the dust (TSP) emissions total 264 tons.</td>
</tr>
<tr>
<td>(4) CO</td>
<td>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 steelmaking process generates air pollutants such as SOx, NOx, and dust. POSCO reports all emission volumes. As for other substances, the data is neither collected nor calculated.</td>
</tr>
<tr>
<td>(5) manganese (MnO)</td>
<td>POSCO makes use of manganese as an alloying element to produce different types of steel.</td>
</tr>
<tr>
<td>(6) lead (Pb)</td>
<td>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 steelmaking process generates air pollutants such as SOx, NOx, and dust. POSCO reports all emission volumes. As for other substances, the data is neither collected nor calculated.</td>
</tr>
<tr>
<td>(7) volatile organic compounds (VOCs)</td>
<td>POSCO makes use of VOCs in various processes, such as paint spraying and welding.</td>
</tr>
<tr>
<td>(8) polycyclic aromatic hydrocarbons (PAHs)</td>
<td>POSCO makes use of PAHs in various processes, such as paint spraying and welding.</td>
</tr>
</tbody>
</table>

### Energy Management

**SASB Code**: EM-IS-130a.1, EM-IS-130a.2

**Category**: Quantitative

**Unit**: gigajoules (GJ), percentage (%)

<table>
<thead>
<tr>
<th>Energy Management</th>
<th>POSCO's Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) total energy consumed</td>
<td>374,874,610</td>
</tr>
<tr>
<td>(2) percentage grid electricity</td>
<td>1.2%</td>
</tr>
<tr>
<td>(3) percentage renewable</td>
<td>POSCO sold 16,287 GJ of its produced renewable energy, with the amount used totaling 318 GJ.</td>
</tr>
<tr>
<td>(1) total fuel consumed</td>
<td>370,394,000</td>
</tr>
<tr>
<td>(2) percentage coal</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>(3) percentage natural gas</td>
<td>14.1%</td>
</tr>
<tr>
<td>(4) percentage renewable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

### Water Management

**SASB Code**: EM-IS-140a.1

**Category**: Quantitative

**Unit**: thousand cubic meters (m³), percentage (%)

<table>
<thead>
<tr>
<th>Water Management</th>
<th>POSCO's Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) total fresh water withdrawn</td>
<td>136,400</td>
</tr>
<tr>
<td>(2) percentage recycled</td>
<td>POSCO recycles a portion of its collected wastewater and rainwater, with the recycled amount internally calculated and managed through wastewater/rainwater treatment facilities.</td>
</tr>
<tr>
<td>(3) percentage in regions with 'High (40-80%)' Baseline Water Stress</td>
<td>In the Pohang and Gwangyang regions, where POSCO’s domestic worksites are located, the Baseline Water Stress is below 40%, so this usage metric is not applicable.</td>
</tr>
<tr>
<td>(4) percentage in regions with 'Extremely High (&gt;80%)' Baseline Water Stress</td>
<td>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.</td>
</tr>
<tr>
<td>Code</td>
<td>Category</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>EM-IS-150a.1</td>
<td>Quantitative</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>EM-IS-320a.1</td>
<td>Quantitative</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>EM-IS-430a.1</td>
<td>Discussion and</td>
</tr>
<tr>
<td></td>
<td>Analysis</td>
</tr>
</tbody>
</table>

**Activity Metric**

<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
<th>Unit</th>
<th>Accounting Metric</th>
<th>POSCO’s Response</th>
</tr>
</thead>
</table>
| EM-IS-000.A  | Quantitative | metric tons (t), percentage (%) | Raw steel production, percentage from (1) basic oxygen furnace processes, (2) electric arc furnace processes | Concerned data was calculated 100% on POSCO’s domestic worksites. (1) Output volume: 34,703,001, Percentage: 96.57%  
(2) Output volume: 1,231,846, Percentage: 3.43% |
| EM-IS-000.B  | Quantitative | metric tons (t),              | Total iron ore production         | This metric is not applicable and 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 not reported as POSCO does not own any mines. |
|              |          |                               |                                  |                                                                                 |
**OVERVIEW**

**BUSINESS**

**ESG FACTBOOK**

**SOCIETY**

**PEOPLE**

**GOVERNANCE**

**POSCO Corporate Citizenship Report 2020**

### Scope 1 Emissions

- **Coverage:** All worksites producing consolidated POSCO crude steel including Pohang Works, Gwangyang Works; China’s POSCO (Zhangjiagang) Stainless Steel Co., Ltd.; Indonesia’s PT KRAKATAU POSCO; and Vietnam’s POSCO YAMATO VINA STEEL JOINT STOCK COMPANY.

- **Note:** Coverage pertains to the emissions from production worksites of nations which enforce emission quantity regulations (e.g. Korea, China).

<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
<th>Accounting Metric</th>
<th>POSCO’s Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM-IS-110a.1</td>
<td>Quantitative</td>
<td>(1) Gross global Scope 1 emissions, (2) Percentage covered under emissions-limiting regulations</td>
<td>(1) 81,306,366 (2) 92.3% Scope 1 emissions are based on that generated from Korea as of the end of 2020.</td>
</tr>
<tr>
<td>EM-IS-110a.2</td>
<td>Discussion and Analysis</td>
<td>-</td>
<td>With domestic worksites accounting for 92.3% of total emissions, detailed roadmaps aiming for 2050 Carbon Neutrality are disclosed to achieve the reduction goals of 20% by 2030, and 50% by 2040.</td>
</tr>
<tr>
<td>EM-IS-120a.1</td>
<td>Quantitative</td>
<td>(1) NO(_x) (excluding N(_2)O), (2) SO(_x), (3) particulate matter (PM10), (4) CO, (5) manganese (Mn), (6) lead (Pb), (7) volatile organic compounds (VOCs), (8) polycyclic aromatic hydrocarbons (PAHs)</td>
<td>40,963 25,031 573</td>
</tr>
<tr>
<td>EM-IS-120a.2</td>
<td>Quantitative</td>
<td>(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable</td>
<td>396,672,188 2.9% Not Applicable</td>
</tr>
<tr>
<td>EM-IS-130a.1</td>
<td>Quantitative</td>
<td>(1) Total fuel consumed, (2) percentage coal</td>
<td>385,353,527 Not Applicable</td>
</tr>
<tr>
<td>EM-IS-130a.2</td>
<td>Quantitative</td>
<td>(1) percentage natural gas</td>
<td>14.7% Not Applicable</td>
</tr>
<tr>
<td>EM-IS-140a.1</td>
<td>Quantitative</td>
<td>Total fresh water withdrawn, percentage recycled, percentage in regions with High (40-80%) Baseline Water Stress, percentage in regions with Extremely High (&gt;80%) Baseline Water Stress</td>
<td>151,730 34.1% (Percentage of recycled rainwater and wastewater) 0</td>
</tr>
</tbody>
</table>

**Greenhouse Gas Emissions**

**Air Emissions**

**Energy Management**

**Water Management**
## Sustainability Disclosure Topics and Accounting Metrics

### Waste Management

<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
<th>Unit</th>
<th>Accounting Metric</th>
<th>POSCO’s Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM-IS-150a.1</td>
<td>Quantitative</td>
<td>metric tons (t), percentage (%)</td>
<td>Total amount of waste generated</td>
<td>24,356,843</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>percentage hazardous</td>
<td>POSCO follows the criteria set forth by Korea’s Waste Management Act in sorting and managing the waste generated, with foreign worksites lawfully managed according to national regulations. The management criteria of designated waste, as 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 forms a total of 9.8% across all worksites.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>percentage recycled</td>
<td>97.4%</td>
</tr>
</tbody>
</table>

### Workforce Health & Safety

<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
<th>Unit</th>
<th>Accounting Metric</th>
<th>POSCO’s Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM-IS-320a.1</td>
<td>Quantitative</td>
<td>incidence rate per 200,000 hours</td>
<td>Total recordable incident rate (full-time and contract, TRIR)</td>
<td>0.068</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fatality rate (full-time and contract)</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>near miss frequency rate (full-time and contract)</td>
<td>29.52</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Coverage pertains only to Korean domestic worksites (under direct operation) and China’s POSCO (Zhangjiagang) Stainless Co., Ltd., overall.</td>
<td></td>
</tr>
</tbody>
</table>

### Supply Chain Management

<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
<th>Unit</th>
<th>Accounting Metric</th>
<th>POSCO’s Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM-IS-430a.1</td>
<td>Discussion and Analysis</td>
<td>-</td>
<td>Discussion of the process for managing iron ore and/or coking coal sourcing risks arising from environmental and social issues</td>
<td>POSCO is a member of the RMI and is fortifying ESG collaboration with its raw materials suppliers. <a href="#">Direct Link</a></td>
</tr>
</tbody>
</table>

### Activity Metric

<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
<th>Unit</th>
<th>Accounting Metric</th>
<th>POSCO’s Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM-IS-000.A</td>
<td>Quantitative</td>
<td>metric tons (t), percentage (%)</td>
<td>Raw steel production, percentage from (1) basic oxygen furnace processes, (2) electric arc furnace processes</td>
<td>Concerned data was calculated based on 100% of POSCO’s domestic crude steel worksites. (1) Output volume: 34,803,322, Percentage: 93.16% (2) Output volume: 2,775,245, Percentage: 6.84%</td>
</tr>
<tr>
<td>EM-IS-000.B</td>
<td>Quantitative</td>
<td>metric tons (t),</td>
<td>Total iron ore production</td>
<td>This metric is not applicable and not reported as POSCO does not own any mines.</td>
</tr>
<tr>
<td>EM-IS-000.C</td>
<td>Quantitative</td>
<td>metric tons (t),</td>
<td>Total coking coal production</td>
<td>This metric is not applicable and not reported as POSCO does not own any mines.</td>
</tr>
</tbody>
</table>
To the management of POSCO

We have undertaken a limited assurance engagement in respect of the selected sustainability information (the 'Identified Sustainability Information') in the POSCO's Corporate Citizenship Report for the year ended 31 December 2020 ('the Corporate Citizenship Report') listed below.

Identified Sustainability Information

The Identified Sustainability Information included in the POSCO's Corporate Citizenship Report for the year ended 31 December 2020 is summarised below:
- 'Global Reporting Initiative (GRI) Standards Index' stated on pages 94 - 100
- 'ESG DATA' within the 'ESG FACT BOOK' heading on pages 1 - 7
- 'Sustainability Accounting Standards Board (SASB)' within the 'ESG FACT BOOK' heading on pages 9 - 12

Our assurance was with respect to the year ended 31 December 2020 information only and we have not performed any procedures with respect to earlier periods or any other elements included in the Corporate Citizenship Report and, therefore, do not express any conclusion thereon.

Criteria

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

POSCO's Responsibility for the Identified Sustainability Information

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

Inherent Limitations

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

Our Independence and Quality Control

We have complied with the ethical requirements of the Republic of Korea, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. Our firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our Responsibility

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

A limited assurance engagement involves assessing the suitability in the circumstances of POSCO's use of the Criteria as the basis for the preparation of the Identified Sustainability Information, assessing the risks of material misstatement of the Identified Sustainability Information whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the Identified Sustainability Information.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement. 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 December 31, 2020 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 an understanding of POSCO's sustainable management performance and activities. Accordingly, we accept no liability or responsibility to any third party, other than POSCO and its management, who gains access to this report.

Samil Pricewaterhouse Coopers
Seoul, Korea
Hoonsoo Yoon, Chief Executive Officer
June 4, 2021

Hoonsoo Yoon, Chief Executive Officer
INDEPENDENT ASSURANCE REPORT ON CARBON REPORTING

To the management of POSCO

We have undertaken a limited assurance engagement in respect of the selected carbon reporting information (the 'Identified Carbon Reporting Information') in the POSCO’s Corporate Citizenship Report for the year ended 31 December 2020 ('the Corporate Citizenship Report') listed below.

Identified Sustainability Information

The Identified Carbon Reporting Information included in Independent Assurance Report for the year ended 31 December 2020 is summarized below:

- GHG emission (Scope 1, Scope 2) and GHG intensity in 2020 within the ‘ESG FACT BOOK’ heading on page 3
- Social CO2 (Avoided CO2) Reduction Effect stated on page 39

Our assurance was with respect to the year ended 31 December 2020 information only and we have not performed any procedures with respect to earlier periods or any other elements included in the Corporate Citizenship Report and, therefore, do not express any conclusion thereon.

Criteria

The criteria used by POSCO to prepare the Identified Carbon Reporting Information on 'Ministry of Environment' guideline on reporting and certification of Enforcement on the Allocation and Trading of Greenhouse Gas Emission Permits (Notification of Ministry of Environment 2018-73) and 'Estimating and Reporting the Comparative Emissions Impacts of Products' published by GRI Standards 305-4(GHG emissions intensity), GHG Protocol (GHG Protocol) (the 'Criteria').

Our Responsibility for the Identified Carbon Reporting Information

POSCO is responsible for the preparation of the Identified Carbon Reporting Information in accordance with the Criteria. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of Identified Carbon Reporting 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 Responsibility

Our responsibility is to express a limited assurance conclusion on the Identified Carbon Reporting 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 (ISAE) 3410, Assurance Engagements on Greenhouse Gas Statements 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 Carbon Reporting Information is free from material misstatement.

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 Carbon Reporting Information the year ended December 31, 2020 is not prepared, in all material respects, in accordance with the Criteria.

Restricted Use

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

Samil Pricewaterhouse Coopers
Seoul, Korea
Hoonsoo Yoon, Chief Executive Officer
June 4, 2021
Preparation of the Corporate Citizenship Report

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

This report was prepared through collaboration with:

<table>
<thead>
<tr>
<th>Investment Group</th>
<th>Tax Accounting Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investor Relations Group</td>
<td>Solution Strategy Group</td>
</tr>
<tr>
<td>Smart Factory Planning Group</td>
<td>Hydrogen Business Office</td>
</tr>
<tr>
<td>Corporate Strategy Planning Group</td>
<td>Safety Planning Group</td>
</tr>
<tr>
<td>Process and Engineering R&amp;D Center</td>
<td>Business Ethics Risk Management Bureau</td>
</tr>
<tr>
<td>Procurement Planning Group</td>
<td>LIL Materials Business Strategy Group</td>
</tr>
<tr>
<td>Corporate Citizenship Strategy Group</td>
<td>Human Resources and Corporate Culture Office</td>
</tr>
<tr>
<td>Labor Planning Group</td>
<td>Human Resources Management Office</td>
</tr>
<tr>
<td>Labor and Management Development Group</td>
<td>Finance Management Group</td>
</tr>
<tr>
<td>Shared Growth Group</td>
<td>Materials Procurement Group</td>
</tr>
<tr>
<td>Marketing Support Group</td>
<td>Information Security Bureau</td>
</tr>
<tr>
<td>Legal Affairs Office</td>
<td>Steelmaking Raw Materials Group</td>
</tr>
<tr>
<td>Venture Valley Group</td>
<td>Environmental Consultation Supporting Group</td>
</tr>
<tr>
<td>Venture Fund Group</td>
<td>Communication Office</td>
</tr>
<tr>
<td>Health Care Planning Group</td>
<td>Carbon Neutral &amp; Environmental Affairs Group</td>
</tr>
<tr>
<td>By-Product Recycling Group</td>
<td>Investment Planning Group</td>
</tr>
<tr>
<td>Corporate Social Responsibility Group</td>
<td>POSCO Group University</td>
</tr>
<tr>
<td>Coal Group</td>
<td>Sales and Production Planning Group</td>
</tr>
<tr>
<td>Iron &amp; Steelmaking Production and Technology Group</td>
<td></td>
</tr>
</tbody>
</table>

Published in June 2021
Published by POSCO
Verified by Samil PricewaterhouseCoopers
Designed by Reddot Branding

• Turkey’s Canakkale 1915 Bridge, the world’s longest suspension bridge to be completed in 2023, made from 128,000 tons of POSCO steel including wire rods and thick plates.