



# POSCO CORPORATE CITIZENSHIP REPORT 2020

Economic, Environmental,  
Social, and Governance Performance

 with POSCO

posco



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# About This Report

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.

[➤ ESG Factbook](#)



## 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.

## 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 offices, 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.

## 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.

[➤ Assurance Report](#)

## 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)

1995~2003	Environmental Report	 <a href="#">Link to Sustainability Report for past calendar year</a>
2004~2013	Sustainability Report	
2014~2018	POSCO Report	 <a href="#">Link to 2020 Climate Action Report</a>
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](mailto:sustainability@posco.com)

**Website** [www.posco.com](http://www.posco.com)

**Corporate Citizenship Website** [corporatecitizenship.posco.com](http://corporatecitizenship.posco.com)

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# POSCO CHARTER OF CORPORATE CITIZENSHIP

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



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▲ POSCO Group Promotional Video



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# Company Overview

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 steelworks. 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.

Selected by the world's leading steel analysis institution WSD  
as "The Most Competitive Steelmaker in the World"  
for 11 Consecutive Years  
(2010~2020)

## GLOBAL No.1

### GLOBAL No.2

No. 2 in Market Capitalization Among  
the World's Steelmakers  
21.693 billion USD (end of 2020)

### GLOBAL No.6

No. 6 in Global Crude Steel Production  
(2020 standard, Worldsteel)

#### Credit Ratings

Korea Investors Service Inc. / Korea Ratings Corporation  
/ NICE Information Service Co., Ltd.

## AA+ (Stable)

Global  
S&P

## BBB+ (Stable)

Moody's

## Baa1 (Stable)

POSCO at a Glance

Company Name	POSCO	Company Representatives	CEO Jeong-woo Choi, COO Kim Hak-dong, CFO Jung-son Chon
Head Office Address	6261, Donghaean-ro (Goedong-dong), Nam-gu, Pohang-si, Gyeongsangbuk-do, Korea	Establishment Date	April 1, 1968
Business Areas	Iron making, steelmaking, and production & sales of rolled steel products	Manufactured Products	Hot-rolled steel, steel plates, wire rod, cold-rolled steel, galvanized steel, electrical galvanized steel, electrical steel, stainless steel, titanium, etc.
Website	www.posco.com		

Vision/Core Values



Management Philosophy	Building a Better Future Together		
Management Vision	With POSCO		
Fields of Activity	<b>BUSINESS</b> Business Partners (Partner Companies, Client Companies, Suppliers)	<b>SOCIETY</b> Social Communities and Individuals (Local Communities and Residents)	<b>PEOPLE</b> POSCO Group Executives and Employees
	<ul style="list-style-type: none"><li>Practice of fairness, transparency, and ethics</li><li>Shared growth</li><li>Best products &amp; services</li></ul>	<ul style="list-style-type: none"><li>Contribution to addressing social issues with empathy</li><li>Development of local communities &amp; environmental management</li><li>Participation in philanthropy</li></ul>	<ul style="list-style-type: none"><li>Creation of a safe and pleasant work environment</li><li>Fair HR affairs &amp; stable labor-management relations</li><li>Diversity, inclusion, and striving for work-life balance</li></ul>
POSCO Talent	Talent with the mindset of action, consideration, and creativity		
Code of Conduct	Substance	Practicality	Execution
Core Values	Safety	Win-win	Creativity
			Ethics

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# 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

(Unit: one million KRW, Consolidated basis)

Steel	28,892,877	(50%)
Trade	19,345,222	(34%)
Construction	6,576,170	(11%)
Others	2,978,527	( 5%)
Total	57,792,796	

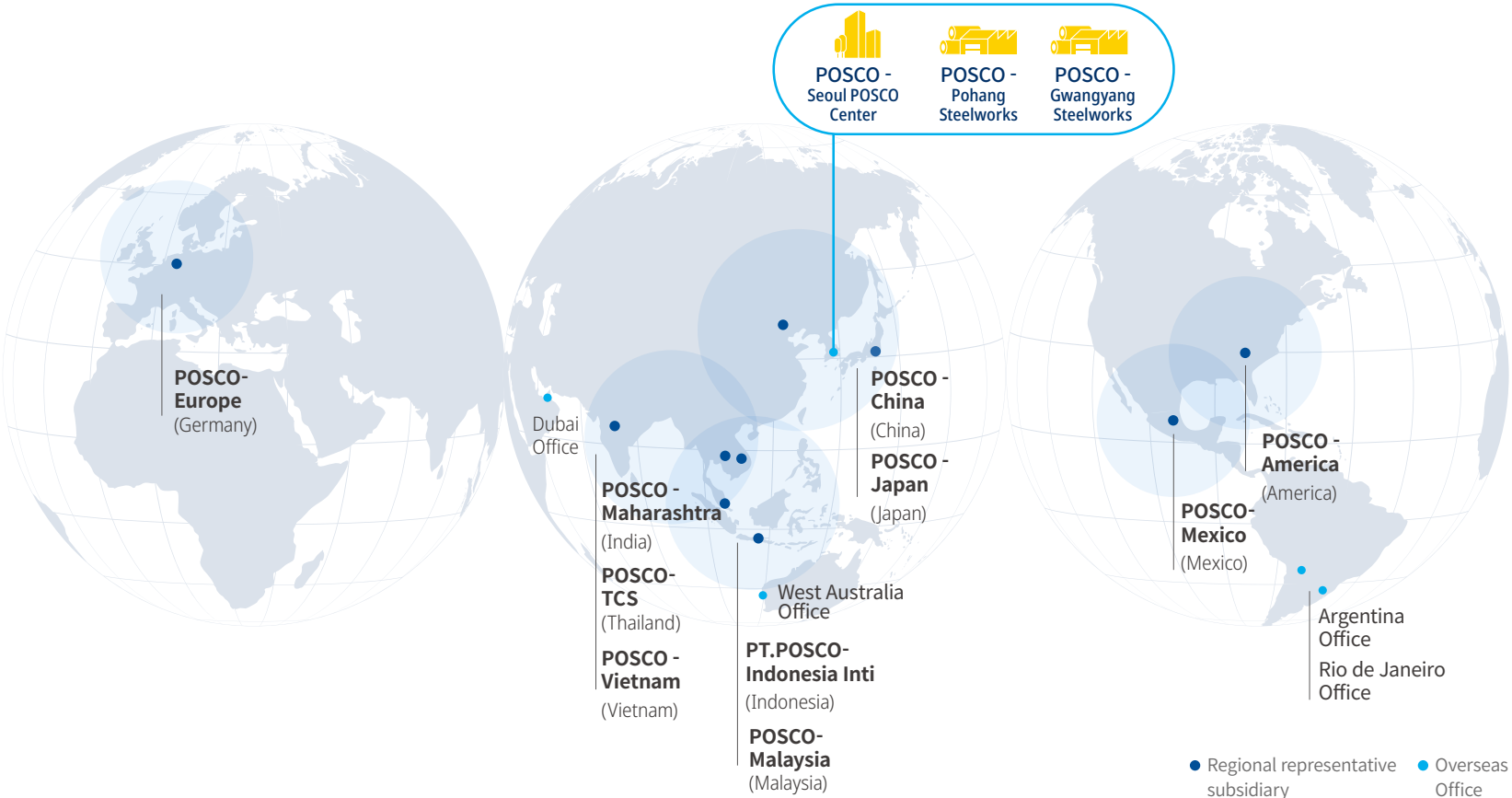
2020 Revenue by Geographic Area

(Unit: one million KRW, Consolidated basis)

Region	Sales
Domestic	36,806,651
Overseas	20,986,145
Japan	1,788,839
China	7,238,063
Asia (others)	7,897,040
North America	1,308,943
Other regions	2,753,260
Total	57,792,796

Global Revenue Breakdown by Region

Domestic	63.7%	Overseas	36.3%
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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 million KRW

2020 Crude Steel Production

Non-consolidated



35.935 million tons

Consolidated



40.579 million tons



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# Message from the CEO

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, suppliers, 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 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.



POSCO is also heavily focused on achieving carbon neutrality by 2050 through the development of CO<sub>2</sub>-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

*Jw Choi*



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# 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 CO<sub>2</sub> 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.



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.

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 steelworks 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

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# Management Performance and Strategy

## Message from the CFO

One cannot argue that the ongoing COVID-19 crisis combined with US-China trade disputes resulted in a challenging time for global economies. While many businesses were hit hard by recent events, POSCO managed to come out on top. By enforcing preemptive emergency management, POSCO Group was able to focus on securing profitability via consolidated sales of 57.792 trillion KRW and an operating profit of 2.403 trillion KRW. These numbers, clearly, are far from disappointing. Simultaneously, POSCO was able to form and maintain a safe and satisfying workplace for our employees, thus fulfilling our corporate social responsibility. POSCO would like to express our gratitude to our stakeholders for this. Going forward, we will continue to prioritize our path to becoming a sustainable corporation, largely by accelerating the adoption of carbon-neutral technologies and ESG management.



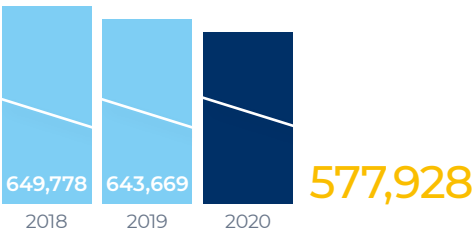
Jung-son Chon,  
Chief Financial Officer  
Head of Global &  
Infra Business Unit  
Head of Corporate Strategy  
and Planning Division

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.

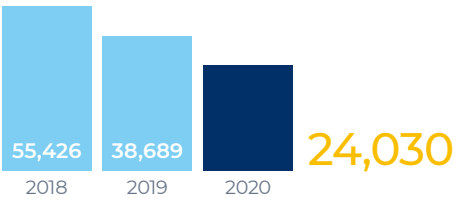
### Financial Performance

(Unit: one hundred million KRW, Consolidated basis)

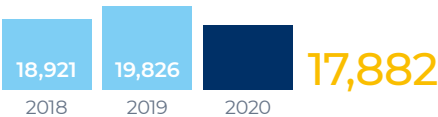
#### Revenue



#### Operating Profit



#### Profit



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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 liquified 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 dialyzed 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 by-product 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 workspace. 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 existing CO<sub>2</sub>-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.



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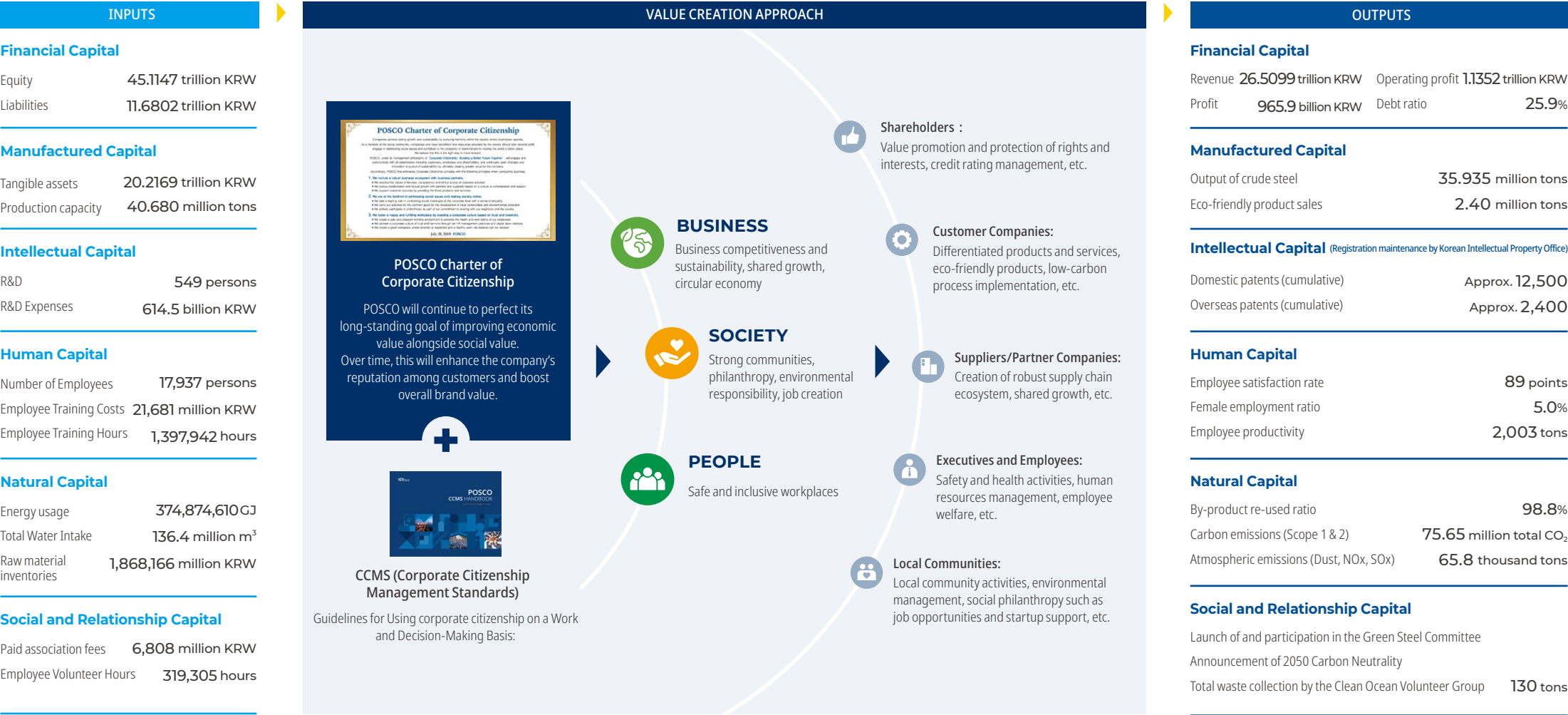
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# Business Model

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.



\*Coverage : Non-consolidated

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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.

(Unit: one million KRW, Separate Financial Statements)

Category	2018	2019	2020
Revenue	30,659,425	30,373,511	26,509,920
Cost of sales	25,728,293	26,700,874	24,323,352
Gross profit	4,931,132	3,672,637	2,186,568
Selling and administrative expenses	1,121,756	1,086,278	1,051,371
Operating profit	3,809,376	2,586,359	1,135,197
Finance income and costs	171,614	360,440	410,483
Other non-operating income and expenses	△1,746,091	△1,115,550	△527,800
Profit before income tax	2,234,899	1,831,249	1,017,880
Income tax expense	1,162,307	655,537	52,017
Profit	1,072,592	1,175,712	965,863

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.

(Unit: one million KRW, Separate Financial Statements)

Category	2018	2019	2020
Current assets	16,796,400	18,216,066	19,579,954
Non-current assets	37,329,580	37,494,700	37,215,015
Total assets	54,125,980	55,710,766	56,794,969
Current liabilities	3,895,973	3,331,446	5,089,111
Non-current liabilities	4,957,905	6,765,135	6,591,154
Total liabilities	8,853,878	10,096,581	11,680,265
Total equity	45,272,102	45,614,185	45,114,704



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3 Cash Flows

POSCO's 2020 business activity totaled 5.1577 trillion KRW, an increase of 556.7 billion KRW from 2019, while cash-equivalent assets showed an increase from 978.1 billion KRW at the start of the year to 1.8227 billion KRW at the end of 2020.

(Unit: one million KRW, Separate Financial Statements)

Category	2018	2019	2020
<strong>Cash flows</strong>			
Net-cash provided by operating activities	4,775,971	3,600,955	5,157,670
Net-cash provided by investing activities	△3,618,949	△3,952,722	△4,359,430
Net-cash provided by financing activities	△1,230,208	1,075,756	76,314
<strong>Cash and cash equivalents</strong>			
Cash and cash equivalents at beginning of the period	332,405	259,219	978,139
Cash and cash equivalents at end of the period	259,219	978,139	1,822,660

4 Production Capacity

POSCO's total crude steel output in 2020 amounted to 35.935 million tons, with a capacity utilization rate of 88.3%. As for overseas corporations, POSCO (Zhangjiagang) Stainless Steel Co., Ltd produced 989 thousand tons, PT.KRAKATAU POSCO produced 3.1 million tons, and Vietnam's POSCO YAMATO VINA STEEL JOINT STOCK COMPANY (previously SS VINA JOINT STOCK COMPANY) produced 554 thousand tons. Overall, the total production capacity for crude steel totaled 40.579 million tons.

(Unit: one thousand tons, %)

Production performance	Production capacity <sup>1)</sup>	Actual output	Capacity utilization rate
POSCO CO., LTD.	40,680	35,935	88.3
POSCO (Zhangjiagang) Stainless Co.,Ltd	1,100	989	89.9
PT.KRAKATAU POSCO	3,000	3,100	103.3
POSCO YAMATO VINA STEEL JOINT STOCK COMPANY	550	554	100.8
<strong>Total</strong>	<strong>45,330</strong>	<strong>40,579</strong>	<strong>89.5</strong>

\*Based on POSCO and 3 overseas offices, crude steel and stainless steel output standard denotes continuous and billet casting production per each individual steelworks for each fiscal year

1) Production capacity: Continuous T/CH x (No. of weekdays x weekday CH/D + No. of repair days x repair day CH/D)

※ Continuous casting T/CH: 1 time output for 1 device

Weekdays: Normal operation days for steelmaking and continuous casting device

Repair days: Repair days for steelmaking and continuous casting device

CH/D: No. of production units for 1 day

5 Research and Development

Addressing POSCO's research and development (R&D) expenditures<sup>1)</sup>, the following numbers are a combination of selling and administrative expenses and cost of sales. The total two categories increased by 115.6 billion KRW from 2019 to 614.5 billion KRW. The ratio of R&D expenses to sales was 2.13%, a 0.6% increase from 2019's 1.54%. The increased spending allowed POSCO to achieve several major project goals during the year, including the following:

2020 Major Research and Development Achievements:

- Automobile steel plate: High-formability structural steel for automobile chassis
- High-performance STS: High-gloss STS for automobile molding materials
- High-performance cold-rolled steel: PosMAC steel sheet for solar cells
- Automobile steel plate: Technology for improving the performance of automobile steel welding parts (PosZET™)
- High-performance hot-rolled steel: High-strength pipe structural steel for oil sand
- Advanced steel plate: Leading heavy plate product for wind power structures
- High-performance STS: STS product for automobile gas emission reduction devices
- Advanced wire rod: Tire cord products for high-speed drawing

1) Total R&D expenditure prior to government subsidies deduction

Non-Financial Performance

1 Environmental Performance

Climate Change

After a discussion with the board of directors in December 2020, POSCO announced its commitment to become a carbon-neutral company by 2050. This reflects POSCO's cooperation with its major investors and customer companies, which have also made carbon-neutrality declarations and issued cooperation proposals. To achieve the "POSCO 2050 Carbon Neutrality" goal, POSCO plans to first achieve a 20% carbon reduction by 2030 and 50% carbon reduction by 2040. POSCO aims to meet this target via the use of hydrogen-reduction steel, which will involve the implementation of novel technology. POSCO is currently striving to secure said reduction technologies by offering our innovative FINEX method to be combined with the use of a blast furnace as part of a national research project on carbon neutrality. In addition, in March 2020, POSCO declared its support for the TCFD, which inspired the company to publish its own Dialogue for Climate Action the following December.

Air

Among POSCO's many efforts to be a sustainable company, one of them has been investing approximately 1.05 trillion KRW between 2017 and 2022 toward the reduction of hazardous substance emissions into the atmosphere. By 2020, 790 billion KRW has been spent on reducing both ducted and diffuse emissions by 5,000 tons. Going forward, POSCO plans to further reduce our contribution to emissions. By 2022, the company expects all chimneys to be 35% reduction of emissions, and this will be achieved by replacing obsolete power-generation facilities and installing additional nitrogen-oxide-reduction technology.

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## 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 by-product 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.

## 2 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 PJT 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.

## 3 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.

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# POSCO's ESG and UN SDGs Activity Directions and UN SDGs Activity Directions

<b>Business</b> 	Respond to climate change	   	Build smart factories	  
	Improve atmospheric environment	 	Grow lithium business	 
	Promote recycling	 	Expand eco-friendly new product sales	 
	Water management	 	Create venture platforms	 
<b>Society</b> 	Enforce local community sharing activities	   	Construct marine forests and preserve biodiversity	 
	Strengthen supply chain management	 	Present role models to resolve low birthrates	 
	Transition to ethically sourced minerals	  	Support youth employment/startups	 
<b>People</b> 	Implement safe workplaces	 	Promote diversity and inclusion	
	Strengthen employee health management	 	Construct win-win labor relations	
	Foster talent and strengthen competence		Develop creative organizational culture	
<b>Governance</b> 	Strengthen independence of the board of directors	 	Ethics management	
	Implement transparent tax policy	 	Fair trade	 
	Enforce preemptive risk management		Information security	



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# 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-worksites 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

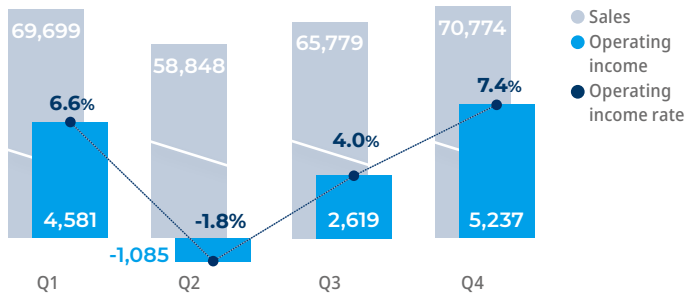


3. Expanding both output and sales of secondary batteries by bold investments in core future growth businesses

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)

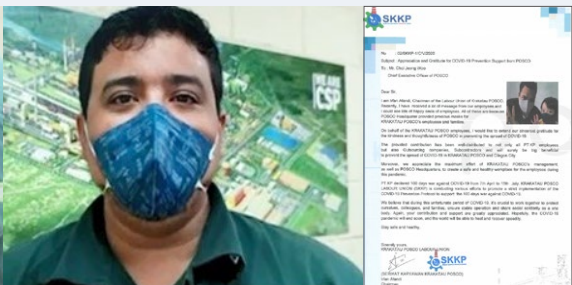
(Unit: one hundred million KRW)



▲ CEO performing on-site inspection



▲ Delivering masks to Brazil CSP executives and employees



Thank you letter from Indonesia PT Krakatau POSCO's Labor Union Leader Irfan Afandi ▲

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SPECIAL RESPONSE TO COVID-19

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.



POSCO Partner 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.



◀ "Thank You"  
Concerts  
for Medical  
Personnel

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.



◀ Purchase of local  
farm produce to  
aid communities  
facing difficulties  
(POSCO-VIETNAM)

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 TJ 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.

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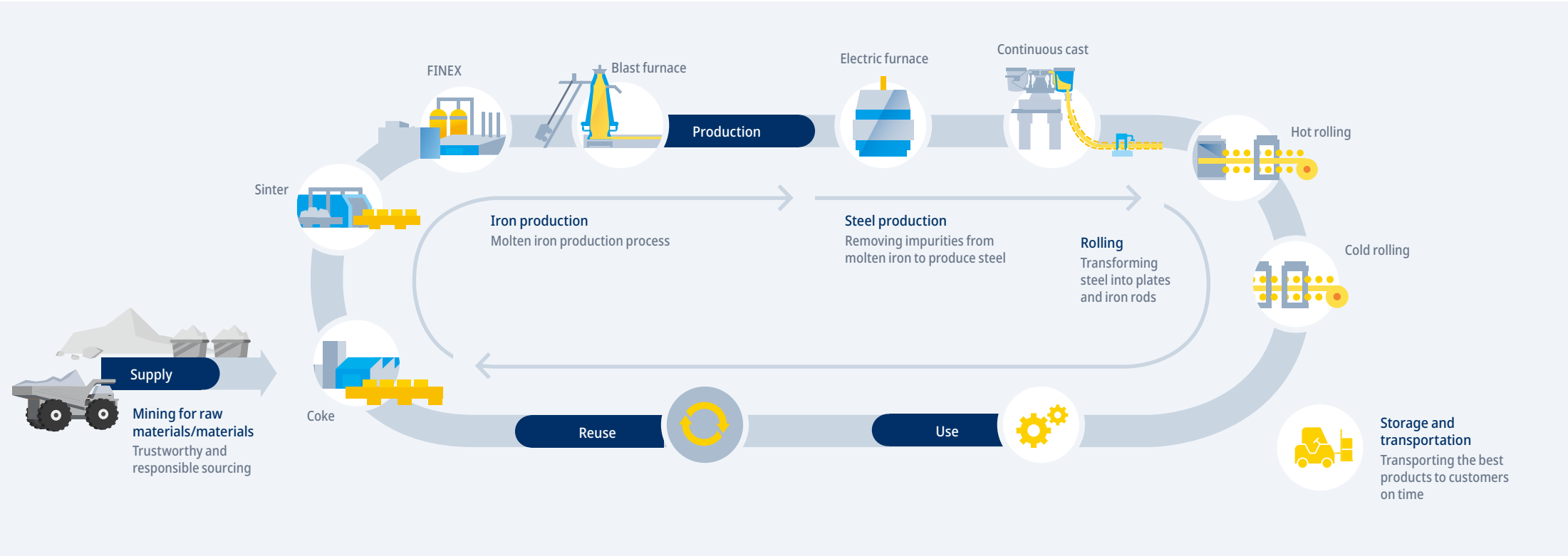
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# Steel Production Process and Products

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.



Hot-Rolled Products



Cold-Rolled Products



Plate Products



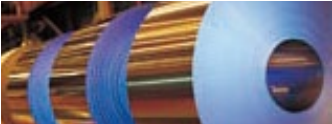
Wire Rod Products



Electrical Steel Products



Stainless Steel Products





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# Corporate Citizenship; POSCO's ESG and UN SDGs

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.

Management  
Philosophy

Activity Areas

Stakeholders

Performance  
Results

Contribution  
Scope



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# Five Major Corporate Citizenship Brands

POSCO recently established five major corporate citizenship brands through six major businesses of the POSCO Group. The five brands reflect POSCO's dedication to creating corporate-level roles that improve the well-being of society. These brands will make it easier to address societal issues firsthand while also growing the respect our stakeholders have for the company.



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# Together with Posco

This brand sets a new standard in the industry and plays a leading role in the company's growth. High levels of business competitiveness can only be achieved when there is a robust industrial ecosystem and all companies in the value chain are prospering. For POSCO, this success is not just economic, but high in social value.

## Open Sourcing (e-Catalog)

POSCO recently established an e-catalog system to allow suppliers to freely promote their items without having to visit the steelworks 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%

## 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.

## 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

## 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.

## 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.

No. of recruits hired by POSCO's partner SMEs

126

## Shared Growth Support Group

POSCO launched the Shared Growth Support Group in January 2021, striving to help small and medium-sized businesses that struggle with finding new employees and have limited access to newer technologies. The support group takes advantage of POSCO's expertise and focuses on four key needs of SMEs. This includes helping establish a smart factory, resolving ESG issues, enhancing energy and equipment efficiency, and introducing new technologies. All of these help with cost-reduction while enhancing the product quality and productivity of each company. POSCO plans to strengthen the overall competitiveness of the industry by solidifying the foundation of a virtuous cycle.



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# 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.

## 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.

No. of Biz Day matches in 2020

**11** Tangible results from 11 business matches between POSCO Group and Venture businesses

## 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.

No. of nurtured/fostered businesses in 2020

**58** Venture businesses are nurtured and fostered through the POSCO Venture Platform. The number is expected to grow after enhancements to current support programs.

## 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.

No. of identified excellent venture businesses in 2020

**15** Provide active support through accelerator programs necessary for commercialization and linking subsequent investments.



▲ POSCO Idea Market Place

▲ A journey of growth and co-prosperity for POSCO and venture businesses

## POSCO Venture Fund Establishment and Investment

POSCO Venture Fund invests in up-and-coming businesses under the "Full Cycle, Global, Virtuous Cycle." To support investment companies, we aim to create an optimal fund for each stage of growth keeping in mind both domestic and overseas investment managers, as well as venture companies. Well-performing investment companies are also linked to future projects as a means to enhance POSCO's competitiveness and discover potential new ventures. The returns on investments made from the Venture Fund continue to be reinvested on the Venture Platform, allowing for its ongoing operation. In 2020, the Venture Fund established a basic framework for full-cycle investment by forming a seed/growth fund for more speculative projects and a separate strategy/CVC fund for growth investments. In the future, POSCO plans to expand the Venture Fund with the aim of increasing our investment pool and contributing to the group's growth.

No. of venture fund-invested enterprises in 2020

**186** Investments of nine funds and 225 billion KRW authorized to form a 629.9 billion KRW fund. Investments were made in 186 domestic and overseas venture businesses in the amount of 248.4 billion KRW.

## 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.

No. of venture businesses shared through the Venture Platform app

**603** (as of April 2021)



▲ Industry-Academia-Research Cooperation Information Portal

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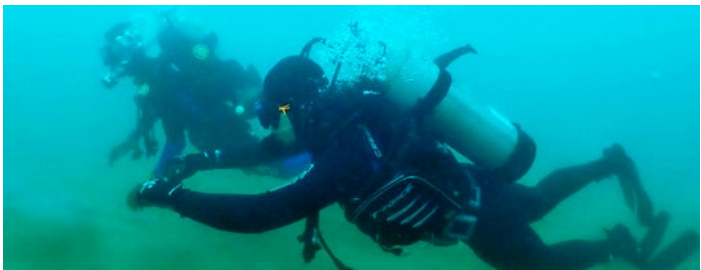
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# Green with Posco

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.



▲ POSCO Clean Ocean Volunteer Group

## 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).

“The POSCO Clean Ocean Volunteer Group received the 10th Presidential Commendation Award in March 2021, which is based on recommendations from the public and selected by the Ministry of the Interior and Safety.”



▲ POSCO Clean Ocean Volunteer Group



## Ulleungdo Island Sea Forest Cultivation Project



### Sea Forest Cultivation

0.4 ha

(Approx. 0.4 hectares in size)

▲ 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.

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# Life with Posco

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.

## 2020 Low Birth Rate Symposium: "The Era of the Demographic Cliff & Collapse of Provincial Cities: The Future Lies in a Country Where Young People Are Happy"

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.

Customized brochures/teaching tools

1,800

Executed training sessions

10 schools targeted  
(56 sessions, 980 students)

## POSCO Employment Academy Supporting Youth Employment and Startups

### 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.

No. of graduates  
(2019~2020)

1,637

No. of employment  
(2019~2020)

560

Employment rate  
(2019~2020)

34

## 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.



▲ Introduction of POSCO's childbirth support policy: A Place for Our Children to Grow - POSCO Town

### 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.

No. of graduates  
(2019~2020)

381

No. of employment  
(2019~2020)

145

Employment rate  
(2019~2020)

38

## 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

(No. of persons, by end of February 2021)

Category	POSCO	Group company	Partner/Other companies	Total
Dongchon, Pohang	29	19	52	100
Geumdang, Gwangyang	24	15	41	80
Total	53	34	93	180

## 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.

No. of graduates  
(2019~2020)

175

No. of start-ups  
(2019~2020)

94

Start-up rate  
(2019~2020)

54



▲ POSCO Startup Incubating School



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# Community with Posco

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

## Global Good Citizenship Week

POSCO's "Becoming and Creating Global Model of Corporate Citizenship" is a program meant to encourage executives, employees, and local community members to act like corporate citizens. We have even renamed our Global Volunteer Week, which has been hosted regularly since 2010, to "Global Good Citizenship Week." The last event, which ran for nine days between June 19-27, 2020, involved various community activities, many of which were inspired by the 70th anniversary of the Korean War. The theme that year was "Cheer Up My Town and Remember Our Heroes."



▲ POSCO Thailand employees performing volunteer work at the Korean War Veterans memorial site

## 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.



▲ POSCO Park1538

## 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.



▲ "Hope-Sharing Lunchbox" volunteer work project in progress

## 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.



▲ Promotional video for POSCO's 14th Undergraduate Volunteer Group "Beyond"

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# 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.



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

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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 our 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 a 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 Act<sup>1)</sup>, 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.

Internal Accounting Control System Process

1 Establishing an operational situation inspection plan	<ul style="list-style-type: none"><li>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</li></ul>
2 Control activity design testing	<ul style="list-style-type: none"><li>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</li><li>Check whether the changes in organization and process were properly applied</li></ul> <p>* The results of each subsidiary's self-inspection are reviewed by POSCO.</p>
3 Control activity operation testing	<ul style="list-style-type: none"><li>Double-check all documents related to major control activities and have them reviewed by the operations manager and control executor (leader)</li><li>Verify evidence of control execution and results</li></ul> <p>* The results of each subsidiary's self-inspection are reviewed by the appropriate department at POSCO.</p>
4 Auditing and reporting on the internal accounting control system	<ul style="list-style-type: none"><li>External auditing firm implements accreditation audits on the design and operation tests performed by the company</li><li>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</li></ul>

Operational status assessments are composed of a design evaluation<sup>2)</sup> and operation evaluation<sup>3)</sup>. All deficiencies identified through this process are improved through consultations with external auditors, responsible departments, and the control executor.

- 1) Sarbanes-Oxley Act (SOx Act): The U.S. Accounting Reform Act enacted in July 2002 allows for stringent sanctions for accounting fraud.
- 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.

Risk Management System (RMS)

POSCO has been running a Risk Management System (RMS)<sup>4)</sup> since 2004 to better control company process risks. To ensure that the RMS operates in consideration of the shifting conditions within the business environment, we combine risk management with our internal auditing process while incorporating feedback from relevant departments to improve the system. 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.

- 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.

Framework for Autonomous Risk Prevention



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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' KPI.

2020 Materiality Analysis Characteristics



Strengthening the Connection Between  
ESG Material Issues and Executive KPIs

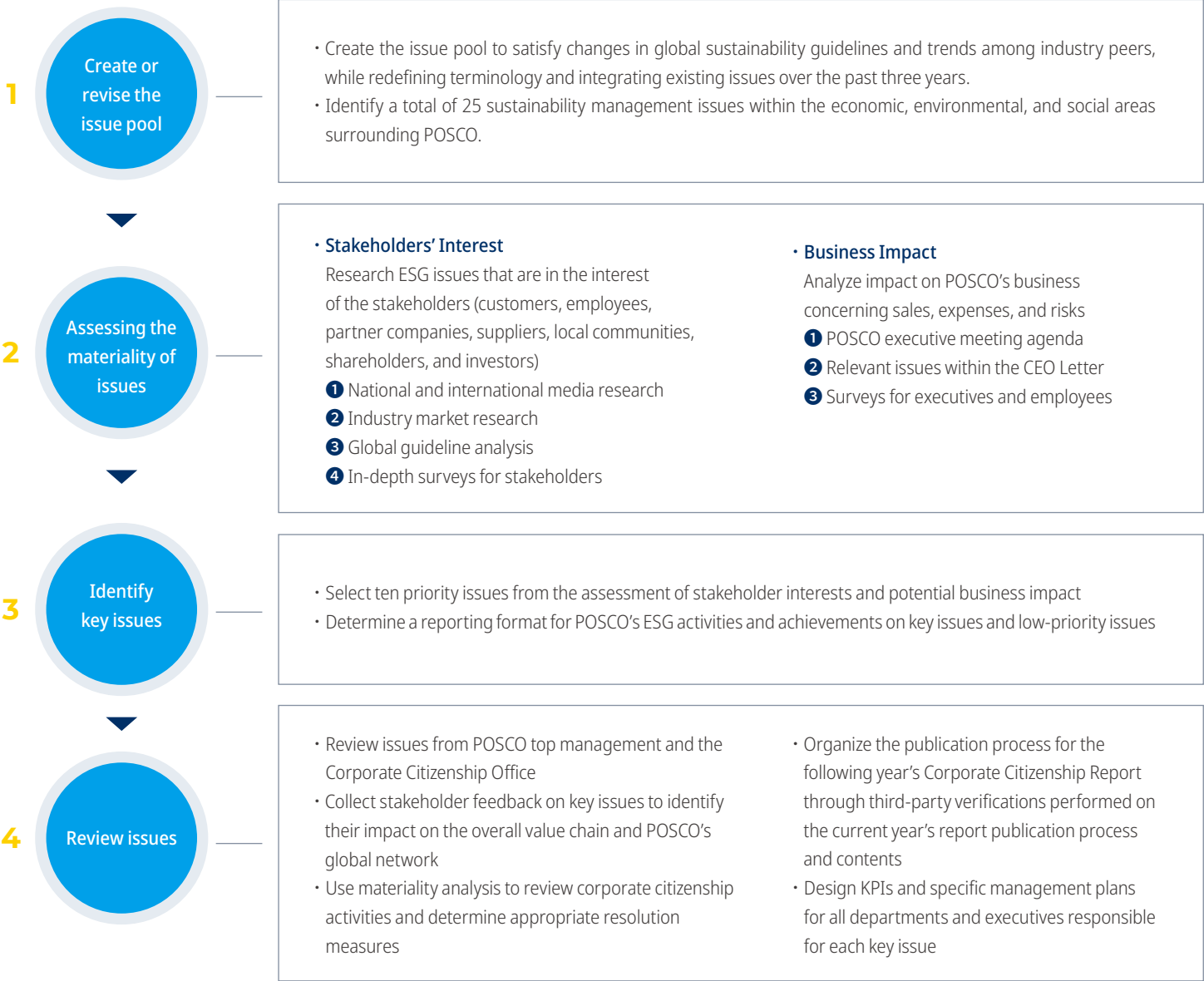
Based on the results of the ESG materiality assessment conducted at the beginning of the year, POSCO has established mid-term strategies for each material issue and set a target for the management of said issues via KPIs.



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





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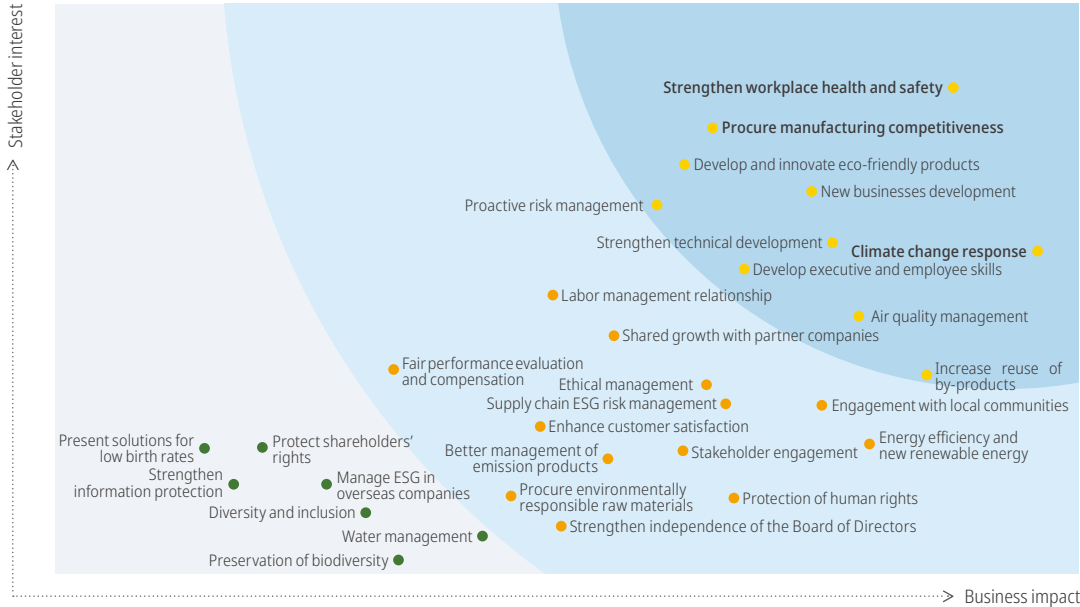


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ESG Materiality Matrix



2020 Key ESG Issues

E

Environmental

Climate change response

Air quality management

Innovation of eco-friendly products

Expansion of waste recycling

S

Social

Strengthen workplace health and safety

Enhance manufacturing competitiveness

Develop executive and employee skills

Invest in new businesses

Strengthen technical development

G

Governance

Proactive risk management

2020 Key ESG Issues	Global Reporting Framework				Stakeholder Impact					Business Impact		
	GRI	SASB	TCFD	UN SDGs	Customer	Partner Company/ Supplier	Local Community	Shareholder/ Investor	Executive/ Employee	Expenses	Sales	Risk
1. Strengthen workplace health/safety	GRI 403 (2018)	EM-IS-320a.1		SDGs 3	●●○	●●●	●●○	●●○	●●●	●●○	●●○	●●●
2. Climate change response	GRI 201 (2016), GRI 305 (2016)	EM-IS-110a.1, EM-IS-110a.2, EM-IS-130a.1, EM-IS-130a.2	●	SDG 3, 7, 13, 17	●●●	●●○	●●●	●●●	●●○	●●●	●●●	●●●
3. Procure manufacturing competitiveness	GRI 302 (2016)			SDG 9, 11, 12	●●●	●●●	●●○	●●○	●●●	●●●	●●●	●●○
4. Invest in new businesses				SDG 9, 12	●●○	●●○	●●●	●●●	●○○	●●●	●●○	●●●
5. Innovate eco-friendly products	GRI 305 (2016)		●	SDG 9, 12, 13	●●●	●●●	●○○	●●●	●●○	●●○	●●●	●●○
6. Strengthen technical development	GRI 301 (2016)			SDG 7, 9, 12, 13	●●●	●●●	●○○	●●○	●●○	●●●	●●●	●●○
7. Air quality management	GRI 305 (2016)	EM-IS-120a.1		SDG 11	●●○	●●○	●●●	●●○	●●○	●●●	●○○	●●○
8. Increase reuse of by-products				SDG 12	●●○	●●●	●○○	●○○	●○○	●●○	●●○	●●○
9. Develop executive and employee skills	GRI 404 (2016)			SDG 4	●●○	●●○	●○○	●○○	●●●	●●○	●●●	●○○
10. Proactive risk management				SDG 8	●●●	●●○	●●○	●●●	●●○	●●○	●●○	●●●

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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.

Key Risk	Risk Management Plan	KPI	2020	2023 Mid-Term Goals	POSCO's Achievements
 <b>Strengthen workplace health and safety</b>	There is 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 <sup>1)</sup>	0 persons	In progress <div><div></div><div></div><div></div><div></div><div></div></div>
 <b>Climate change response</b>	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 our greenhouse gas (GHG) emissions.	GHG emissions	78.8 million tCO <sub>2</sub> <sup>2)</sup> (2017-2019, 3-YEAR PERIOD AVERAGE EMISSION)	75.0 million tCO <sub>2</sub>	In progress <div><div></div><div></div><div></div><div></div><div></div></div>
 <b>Procure manufacturing competitiveness</b>	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 <div><div></div><div></div><div></div><div></div><div></div></div>
 <b>Invest in new businesses</b>	Another next-generation growth engine for the Group is our secondary 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, Production facility under construction	245 thousand tons, 100 thousand tons	In progress <div><div></div><div></div><div></div><div></div><div></div></div>
 <b>Innovate eco-friendly products</b>	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 <div><div></div><div></div><div></div><div></div><div></div></div>
 <b>Strengthen technical development</b>	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 demand for steel.	New technology development cases	94 cases	105 cases	In progress <div><div></div><div></div><div></div><div></div><div></div></div>
 <b>Air quality management</b>	POSCO has set a goal to improve air quality and defined a total atmospheric emission amount as a key environment 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 <div><div></div><div></div><div></div><div></div><div></div></div>
 <b>Increase reuse of by-products</b>	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 <div><div></div><div></div><div></div><div></div><div></div></div>
 <b>Develop executive and employee skills</b>	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 <sup>3)</sup>	303 persons	900 persons	In progress <div><div></div><div></div><div></div><div></div><div></div></div>
 <b>Proactive risk management</b>	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 accounting control system since fiscal year 2006.	Assessment of internal accounting system's operational status	Reasonable	Reasonable	achieved  <div><div></div><div></div><div></div><div></div><div></div></div>

1) Includes POSCO's directly operated companies, primary suppliers, and affiliated companies. 2) POSCO's mid-term goal assessment criteria for GHG emissions output is based on the three-year emissions output for 2017 through 2019.

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.

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# Stakeholder Engagement

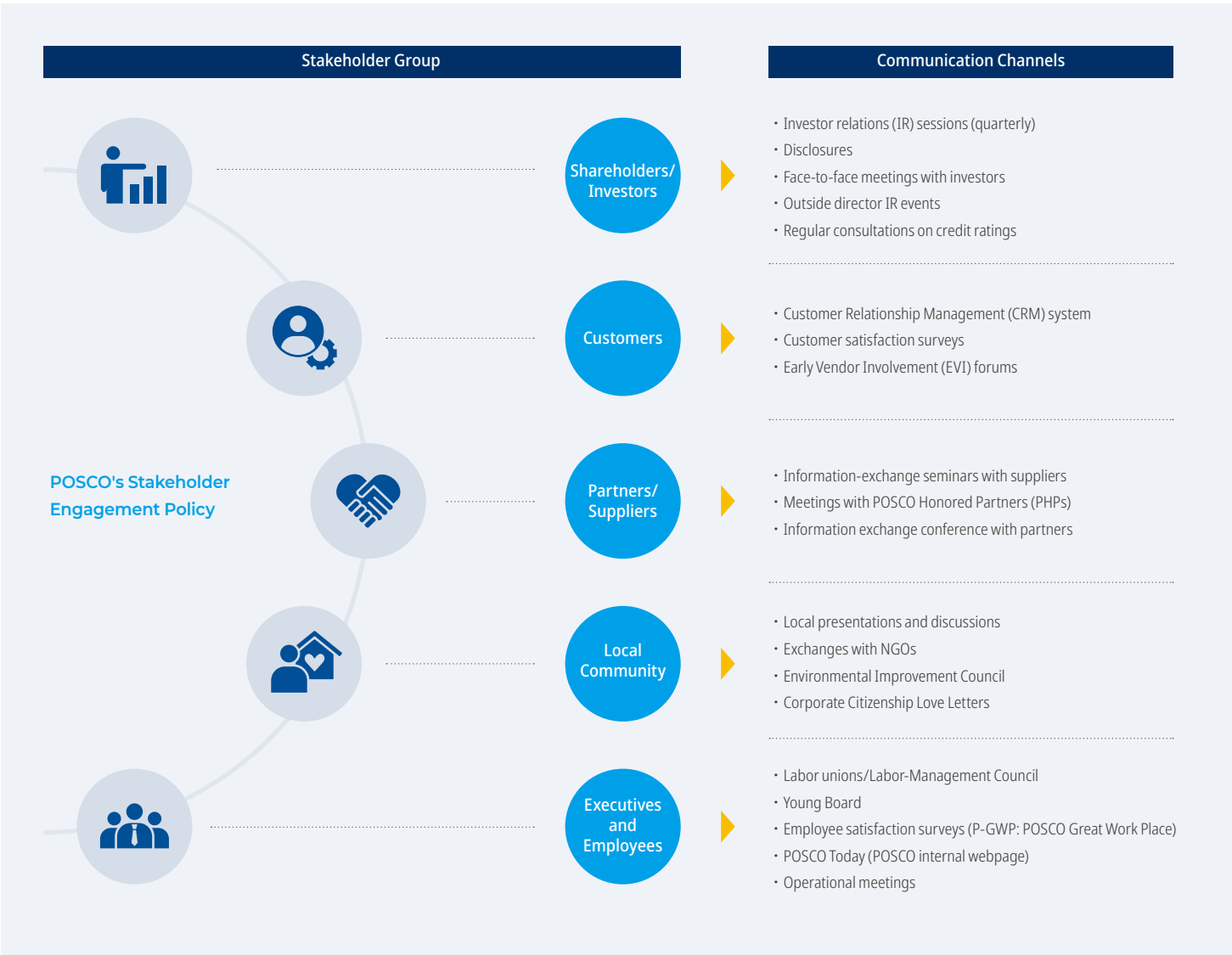
POSCO pays attention to the opinions of our stakeholders, and we reflect their feedback in our business operations. Our stakeholders are categorized into executives, employees, customers, partners and suppliers, local communities, and shareholders/investors. The communication channels are designed differently 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.



Corporate Citizenship Love Letters



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## 2020 In-depth Interviews with POSCO Stakeholders

### Customer — KISWIRE 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 the 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 (COO))

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.



Yong-sik Yoon  
Head of Sales  
and Production  
Planning Sector



Yoon-gi Kim  
Head of  
Production  
Sector



Vandita Pant  
Chief Commercial  
Officer (COO)



Geun-chang Roh  
Managing Director  
& Research Center  
Head



Ha-rim Joo  
Assistant  
Manager



Jong-soo Han  
Professor

## Stakeholder Interview

### 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.



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# Preparing 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  $\text{CO}_2$  generated as a by-product.

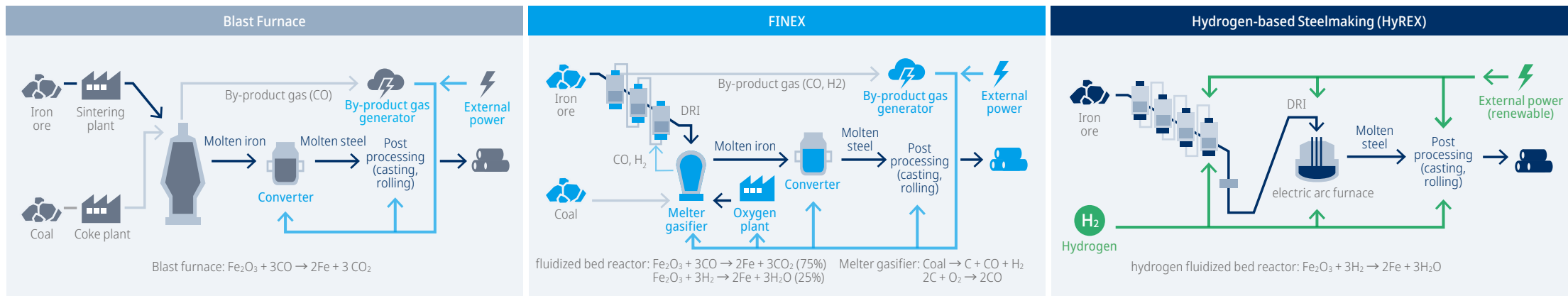
For hydrogen-based steelmaking, hydrogen ( $\text{H}_2$ ) acts as a reducing agent instead of carbon monoxide to separate oxygen from iron ore ( $\text{Fe}_2\text{O}_3$ ). Hydrogen substituting for coal as a reducing agent may seem like a simple change, but it is substantially revolutionary in the fact that  $\text{CO}_2$  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.

Blast Furnace vs. FINEX vs. Hydrogen-based Steelmaking



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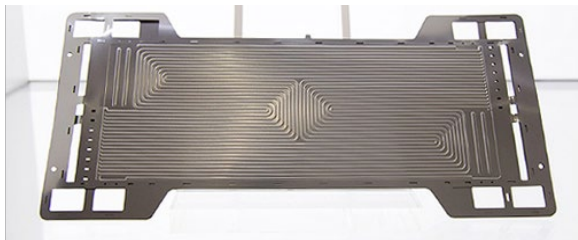
PREPARING FOR THE FUTURE

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.

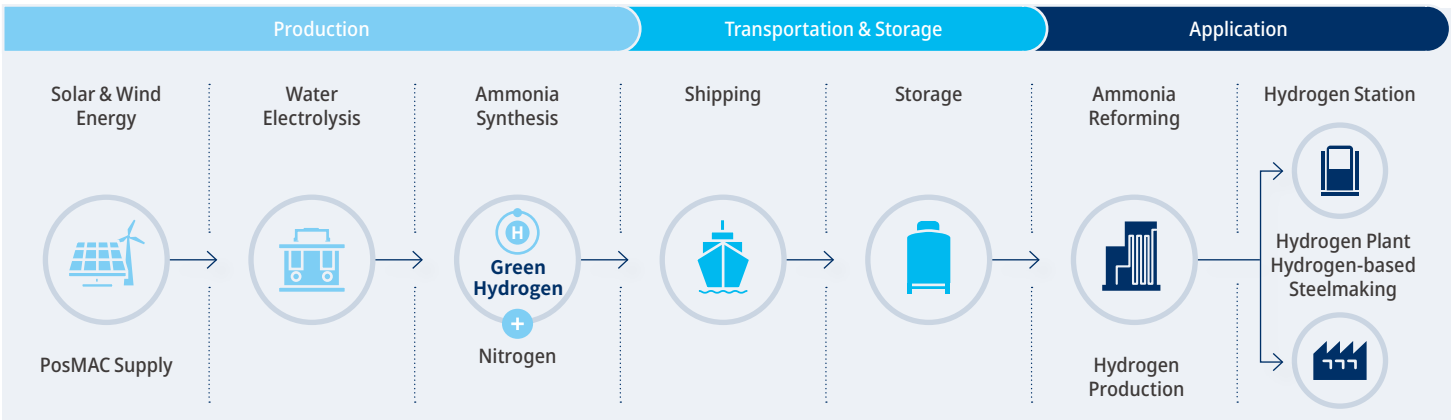
POSCO will perform additional research on hydrogen-based steelmaking technology and strengthen our capabilities by developing steel products for producing, transporting, storing, and applying hydrogen. We will also be increasing by-product hydrogen production facilities and developing core technologies 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.



▲ “Fuel cell separator made with POSCO stainless steel (Poss470FC)” —  
Displayed at the POSCO booth of the 2016 North American International  
Auto Show's (NAIAS) technology exhibition

Once hydrogen-based steelmaking technology becomes commercialized, the amount of green hydrogen required annually is expected to reach 3.7 million tons. POSCO expects to be the largest producer, as well as the largest consumer, which is why we will initially be building hydrogen stations adjacent to steelworks and replace our steel transportation vehicles with hydrogen-powered ones. There are currently 1,500 large trucks used by POSCO for steel transportation. However, during busy times, that number can reach 5,000.

POSCO's Green Hydrogen Business Model



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.

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## ? 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.





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# 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

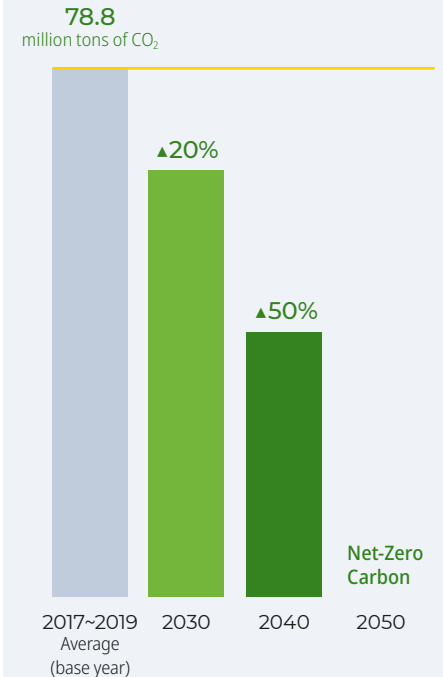
The UN IPCC<sup>1)</sup> Special Report, published in October 2018, highlights the importance of lowering the expected global average temperature increase to 1.5°C by 2100 above the pre-industrial level to control numerous threats posed by climate change. Many governments around the world, including 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<sup>2)</sup>. 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 avoided emissions<sup>3)</sup> 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<sup>4)</sup>. 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 by-product 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<sup>5)</sup>, the recycling rate of by-products<sup>6)</sup>, and the supply of secondary battery materials<sup>7)</sup>. 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 afforestation.
- 7) Lithium, cathode/anode materials

## 2050 Carbon Neutrality Roadmap



# RESPONDINGTO  
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# CARBONNEUTRAL

# HYDROGENREDUCTION  
STEELMAKING

# GREENPROCESS

# GREENPRODUCT

# GREENPARTNERSHIP





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Management Structure

POSCO has a Carbon Neutral and Environmental Affairs Group under the SHE Division's Environmental Planning Group. The Carbon Neutral & Environmental Affairs group oversees climate change, energy, and environmental issues. The By-product 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 CO<sub>2</sub> 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, all other related 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 CO<sub>2</sub> reduction and energy efficiency improvement. The Environment & By-product 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. CO<sub>2</sub> emission intensity spiked in 2019 because it was affected by POSCO's decision to acquire a by-product gas power plant in September 2019, which uses by-product 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 CO<sub>2</sub> emissions rate of our steelworks when producing crude steel in 2020 is 2.11tCO<sub>2</sub>/t-S.

Carbon Management

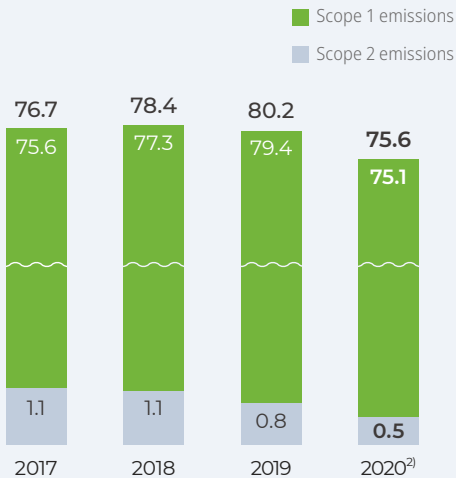
Compliance of emissions trading scheme

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 Monitoring, Reporting and Verification (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).

Greenhouse Gas Emissions (Scope 1 & 2)<sup>1)</sup>

(Unit: million tCO<sub>2</sub>)

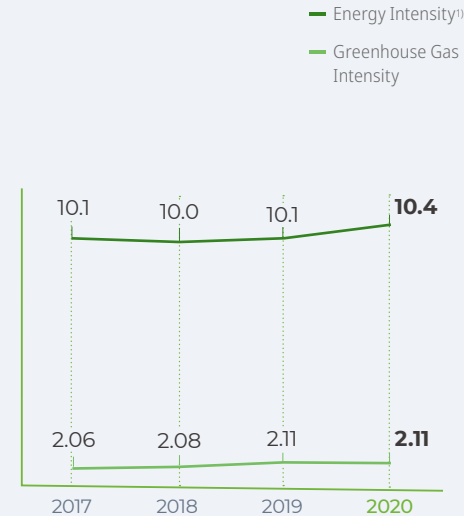


1) Above data only takes Pohang and Gwangyang steelworks into consideration. The amount is notified by the government which reflects the impact of the acquisition of the by-product gas power plant in September 2019 and may differ from the 2019 Corporate Citizenship Report.

2) The submitted amount was verified by a third party but the numbers may change according to the final result of the government's conformity assessment.

Energy and Greenhouse Gas Intensity

(Unit: GJ/t-crude steel, tCO<sub>2</sub>e/t-crude steel)



1) Coal excluded as a reducing agent from energy consumption.

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Acquired ISO 50001 and EDP

POSCO obtained the ISO 50001 certification in September 2012 after diligently complying with its 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.

In 2019, POSCO became the first company in Korea to obtain EPD for its entire steel product line<sup>1)</sup> from the Ministry of Environment<sup>2)</sup>. In the same year, we also obtained “low-carbon product”<sup>3)</sup> 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<sup>4)</sup>, 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<sup>5)</sup> for easy access.

1) Thirteen products, including steel sheets, wire rods, hot-rolled steel sheets, cold-rolled steel sheets, continuous galvanized steel sheets, electroplated steel sheets, electrical steel sheets, stainless steel sheet, and PosMAC.  
2) EPD certification by the Ministry of Environment focuses on Life Cycle Assessment (LCA) of a product's entire life cycle from raw material extraction and processing, through the product's manufacture, distribution and use, and finally to the recycling or final disposal of the materials from which it is composed. This is done to better inform consumers of a product's environmental footprint and encourage eco-friendly consumption.  
3) Certification of Low Carbon Products (Phrase II) is given to products whose carbon emission is lower than the average in the same product category.  
4) Underwriters Laboratories  
5) POSCO's business portal website (www.steel-n.com). It is broadly divided into two sections: e-Sales and e-Procurement. e-Sales deals with sales and e-Procurement handles materials procurement such as discovering new suppliers, electronic bidding, and exchange of documents and information on the website.

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 accelerate the low-carbon transition in the steel industry and expand new businesses in second battery materials and hydrogen.

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.

Type	Risk	Opportunity	Business
Steel	<ul style="list-style-type: none"><li>Increasing low-carbon alternative materials</li><li>Tightening regulations on carbon emissions</li><li>Rising power rates</li><li>Steel plants' more frequent exposure to natural disasters</li></ul>	<ul style="list-style-type: none"><li>Increasing cost competitiveness from innovative low-carbon technology</li><li>Better quality products from high-efficiency steel</li></ul>	<ul style="list-style-type: none"><li>20% emissions reduction by 2030, 50% by 2040</li><li>Supply of high-tensile automotive steel sheets for EVs</li><li>Increased supply of high-tensile, high-efficiency electrical steel sheets</li><li>Commercialization of hydrogen-reduction-based carbon neutrality technology</li></ul>
Secondary Battery Material	<ul style="list-style-type: none"><li>Early termination of EV subsidies</li><li>Drop in EV demand due to rising price of electricity</li><li>Declining demand due to lagging mileage improvements</li></ul>	<ul style="list-style-type: none"><li>Less CO<sub>2</sub> emission than internal combustion engines</li><li>EV steel plate-related marketing opportunity</li></ul>	<ul style="list-style-type: none"><li>Increasing the supply of high-capacity cathode-anode materials for EVs</li><li>Lithium business, recycling of battery waste</li></ul>
Hydrogen/ LNG	<ul style="list-style-type: none"><li>Business restrictions due to Korea Gas Corporation's abuse of its monopoly power</li><li>Oil and renewable energy's growing price competitiveness</li><li>Profitability and safety issue of hydrogen</li></ul>	<ul style="list-style-type: none"><li>Increased use of hydrogen and LNG from government's 9th Basic Plan for electricity and hydrogen</li><li>High expandability of existing businesses (mining, terminal, electricity generation) in relation to new businesses</li></ul>	<ul style="list-style-type: none"><li>Expanding LNG terminal business</li><li>Building infrastructure for hydrogen cars with by-product hydrogen</li><li>Mass production of clean hydrogen from water electrolysis</li></ul>



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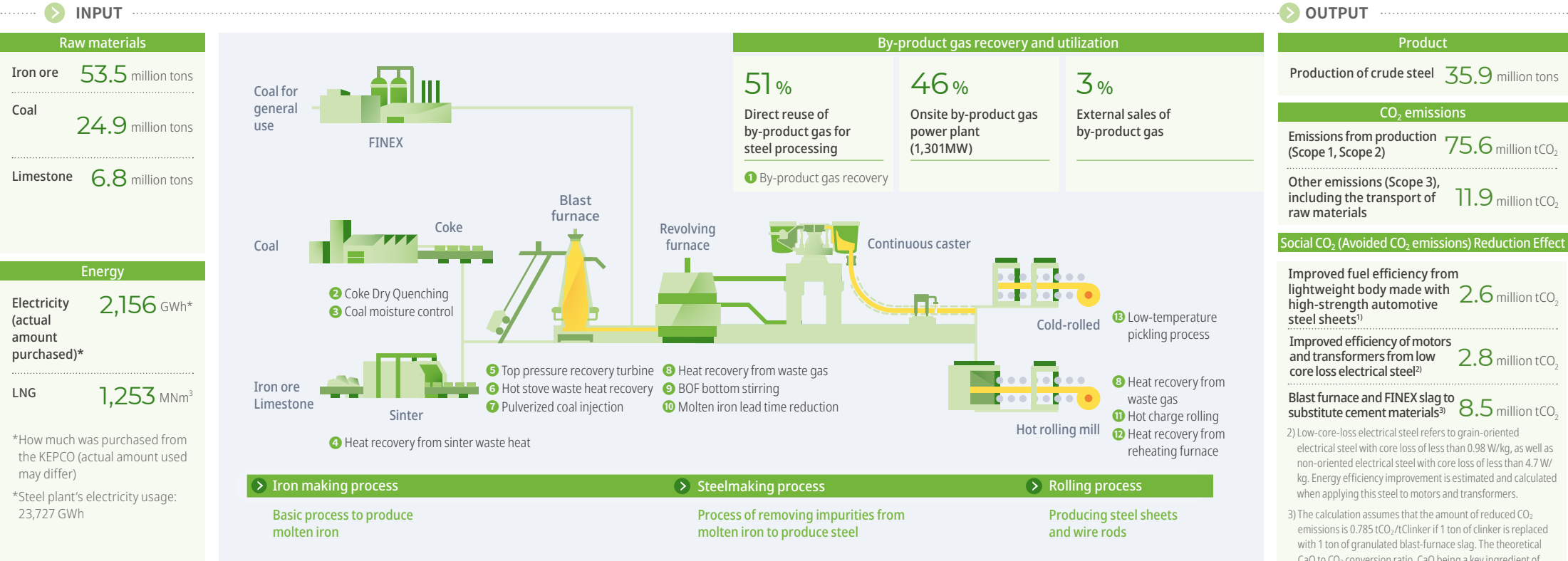
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Green Process: POSCO Carbon FLOW Technology and application

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.



1) Ultra high-strength steel sheet refers to HSS (High-strength Steel) and AHSS (Advanced High-strength Steel) with a tensile strength of at least 340 MPa. Reduction of automobile body weight when applying this steel to a 2,000cc passenger vehicle is estimated and calculated as fuel efficiency improvement. CO<sub>2</sub> reduction effect per ton of high-strength steel: 0.81t-CO<sub>2</sub>/year (weight reduction (fuel saving: 86L/year, unit) X number of vehicles produced per ton of high-strength steel (4.4 units) X CO<sub>2</sub> emission coefficient in road transportation (0.0693 kg CO<sub>2</sub>/MJ, based on IPCC Guidelines, gasoline vehicle standard) X calorific value conversion coefficient (31.0 MJ/L, Energy Act's Enforcement Regulation) ÷ 1,000).

Application of CO<sub>2</sub> reduction technologies

- 1 Capturing, purifying, and reusing by-product gas from the blast furnace, FINEX, coke oven, and converter
- 2 Recovering sensible heat by exchanging heat between red hot coke and cooling gas
- 3 Improving coke strength and blast furnace efficiency by controlling the moisture of coal inserted into the coke oven
- 4 Recovering sensible heat from the sintered ore cooling process
- 5 Generating power by using the pressure of by-product gas emitted from the blast furnace
- 6 Recovering sensible heat from the exhaust gas of the hot blast stove
- 7 Directly injecting coal in place of coke into the blast furnace
- 8 Recovering sensible heat included in the gas emitted from the process
- 9 Improving energy efficiency by injecting argon gas into the bottom of the converter

- 10 Minimizing energy loss by reducing transport times between steel tapping and back-end processes
- 11 Saving reheating energy through the direct insertion of hot slabs
- 12 Recovering sensible heat included in the gas emitted from the heating furnace
- 13 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 to 80%
- CO<sub>2</sub> separation and recycling technology from the leftover by-product gases
- Technology that replaces a portion of the coal used as a blast furnace reducing agent with hydrogen in the iron ore reduction process





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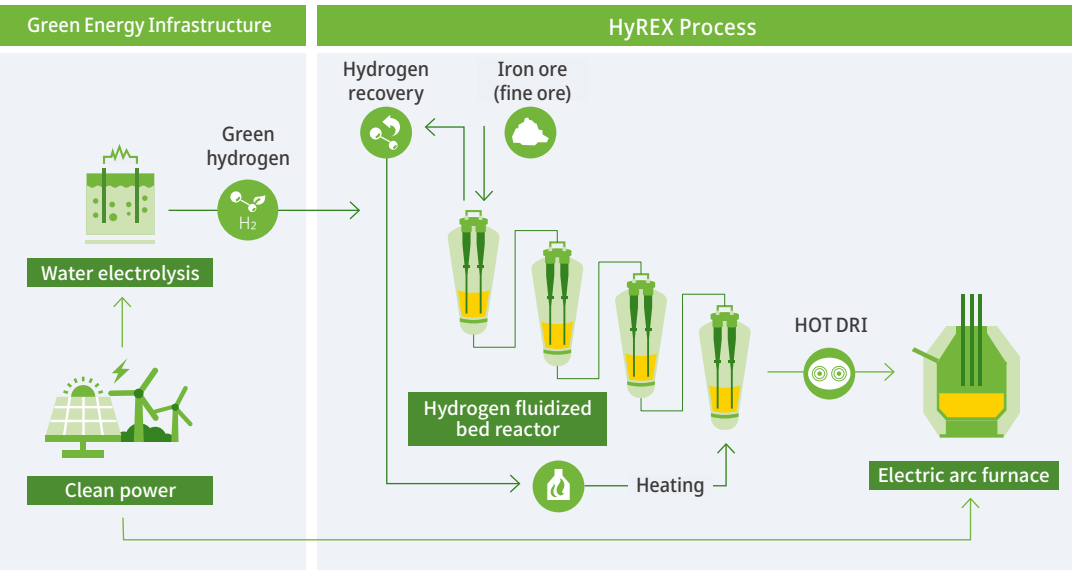
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POSCO's HyREX steel technology

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 fluidized bed reactor in the existing FINEX process. It also produces steel by smelting DRI in the electric arc 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-based fluidized bed reactors to 1.5 million tons and 2 million tons each, annually. Our goal is to complete commercialization of the HyREX technology process after finalizing pilot tests and HyREX technology development within the next 10-20 years while gradually converting the blast 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 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 Product



In order to achieve direct emission and by-product reduction at operation sites through the Green Process, avoided emissions are taken into account by increasing the supply of low-carbon products and by-product gases. Our low-carbon steel product portfolio is expanding, from high-strength steel sheets that enable lightweight automobiles 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 by-product gases at steelworks, but also actively cooperate in the process of building government-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.

\*Clinker: cement raw material similar to limestone that is calcined at high temperatures, and becomes cement when pulverized.

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 CO<sub>2</sub> 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 by-product 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.

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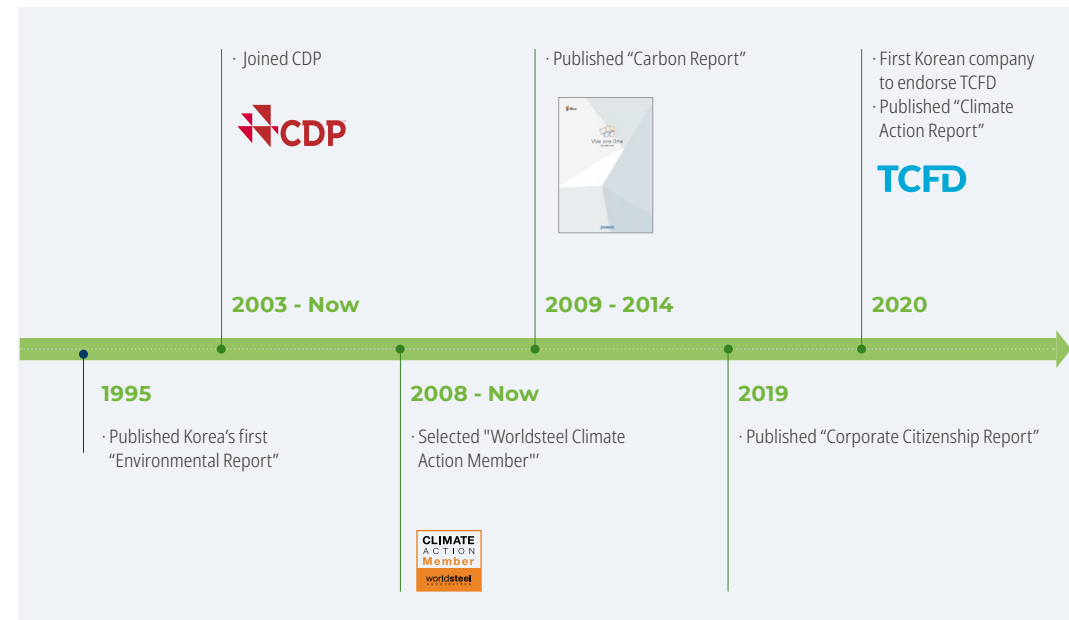
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Green Partnership

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 this Corporate Citizenship Report 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 Committee<sup>1)</sup> 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 CO<sub>2</sub> 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)<sup>2)</sup> 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

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# Creating Eco-friendly Steelworks

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 steelworks.

# STRENGTHENING  
ENVIRONMENTAL INVESTMENT

# ECO-FRIENDLY  
STEELWORKS

# REDUCE AIR POLLUTANT  
EMISSIONS

# RECYCLING  
WATER

# RECYCLING SLAG

# BIODIVERSITY



## 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 Steel Business Unit 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.

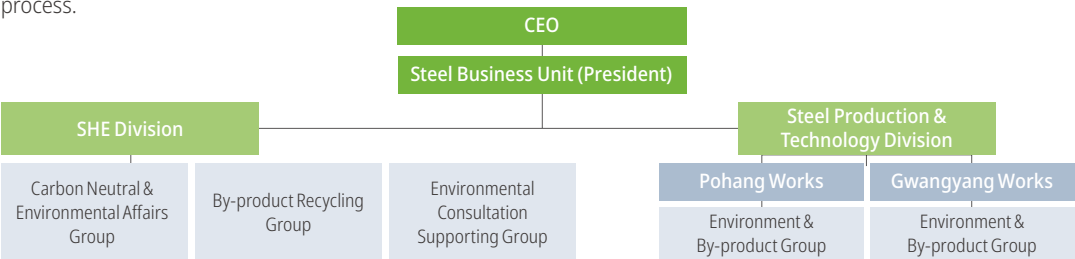
### POSCO Group Integrated Environmental and Energy Management Policy

**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 process technologies.
- ▶ We shall preserve resources and protect the environment throughout the entire business process by efficiently using natural resources and by-products, and developing eco-friendly products.
- ▶ We shall minimize the emission of pollutants by applying optimal prevention technology and eco-friendly manufacturing processes.
- ▶ We shall periodically inspect our integrated environment and energy management system and report to top management.

## Environmental Organization

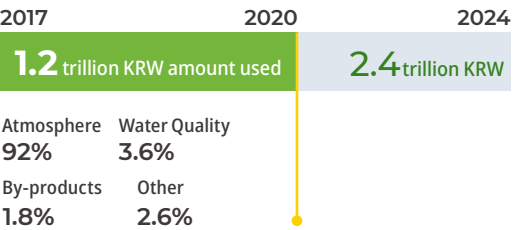
POSCO establishes a company-wide environmental strategy and inspects the results through the Carbon Neutral Environmental Group, the By-product Recycling Group, and the Eco-friendly Consulting Support Group under the Environmental Planning Office. In addition, Pohang Works and Gwangyang Works’ Environment and By-product Group 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



## Environmental Management Certification

Since being certified the ISO 14001 in 1996 by a third party, 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 TeleMetering System (TMS). Measured results are sent to government agencies in real time to increase management transparency.

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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 steelworks 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 by-product 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.

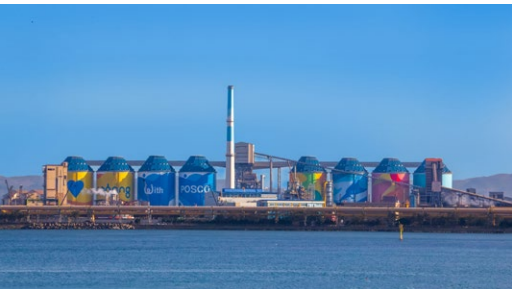
POSCO will also gradually expand silo installations to reduce scattering dust in steel yards. As of 2020, a total of 41 silos were installed at Pohang and Gwangyang Works, which can store up to 1.72 million tons of coal and subsidiary materials.

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 display boards.

Air Pollutant Emissions (as of 2020)

Dust 264 tons NOx 40,680 tons SOx 24,859 tons



▲ Installation of Coal Storage Sealed Facility (Silo) at Pohang Works

By-product Management



POSCO contributes to a resource recycling society by recycling by-products generated by steelworks as much as possible. In particular, we manage our “by-product 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.

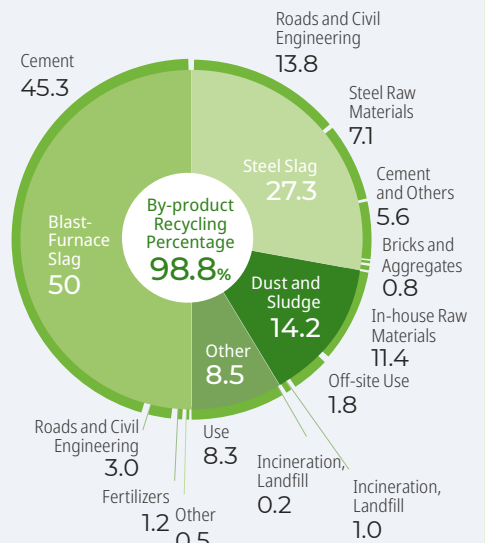
Steel production generates a range of by-products. Slag accounts for about 80% of the total by-product generation, and is largely divided into blast-furnace slag and steel slag. Blast-furnace slag is a rock-based material left after producing molten iron in the blast furnace. When the molten metal cools 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 gases generated during the sintering process of limestone, the raw material for cement.

Steel slag is made during the process of refining molten iron in furnaces. It is mainly composed of natural rock components such as limestone and silicon dioxide, which are useful substitutes for construction aggregates. Joint research with universities and specialized institutions verifies the excellence of calcium silicate fertilizers made from POSCO slag.

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.

By-product Recycling Percentage (as of 2020)



▲ Installation of Coal Storage Sealed Facility (Silo) at Pohang Works



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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.



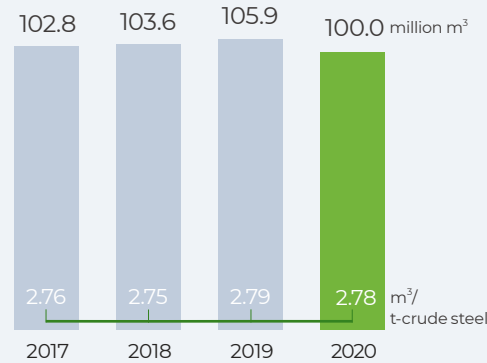
▲ View of the Seawater Desalination Facility at Gwangyang Works



▲ Inside the Seawater Desalination Facility of Gwangyang Works

Fresh Water Usage and Intensity

(Units: 1 million m<sup>3</sup>, m<sup>3</sup>/t-crude steel)



Effluent COD<sup>1)</sup> Concentration (Unit: mg/l)

Category	Goal	2018	2019	2020
Emission Concentration	15 or less	10	10	11
Legal Standard (Pohang, Gwangyang)	-	70, 90	70, 90	70, 90

1)COD: Chemical Oxygen Demand

\*Coverage: 100% of POSCO's domestic business

Effluent T-N<sup>2)</sup> Concentration (Unit: mg/l)

Category	Goal	2018	2019	2020
Emission Concentration	15 or less	11	12	15
Legal Standard (Pohang, Gwangyang)	-	60	60	60

1)T-N: Total Nitrogen

\*Coverage: 100% of POSCO's domestic business

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 Group 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 employees by providing collective training to employees who handle chemicals.



▲ Public-private partnered fire drill site

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## Environmental Training

POSCO runs various and substantial environmental education programs. We provide environmental practices videos 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)

Training Course	Target	Number of Participants
ISO 14001 Internal Auditor Training	Worksite Representative	75 participants (Pohang 42, Gwangyang 34)
Information Exchange Meeting for Environment Executives in Group Affiliates	Executives of 12 Group Affiliates	Semi-annual meetings (Total of 2 meetings)
In-depth Environmental Training for Supervisors	Field Supervisor	132 participants (Pohang 72, Gwangyang 60)
Collective Training on Environmental Regulations & Trends	Environmental Representative	Monthly meetings (Total of 12 meetings)
In-house Postings on Environmental Improvement Examples and Issues	Employee	Year-round
Environmental Training for Partner Companies	Partner Companies	Year-round



▲ Elementary School Supplementary Textbooks on Steel

## 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 Korea Iron and Steel Association to create 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, steel.



▲ Agreement Ceremony to Support Environmental Improvement of SMEs in the Jeollanam Province

### 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.



▲ Pohang City-POSCO Eco-friendly Consulting Support Group Meeting



▲ Visiting suppliers with on-site consulting

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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 who are licenced scuba divers 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 steelworks. 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.



▲ Selected as 2020 Best Company in Sustainability Management (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

\*Construction Location: Namyang-ri, Ulleung-gun, Gyeongsangbuk-do Province



Initial  
Installation  
(2020.5)  
Planting algae  
seedlings in  
TRITON reef

Seaweed Coverage:  
Less than 1 object per m<sup>3</sup>



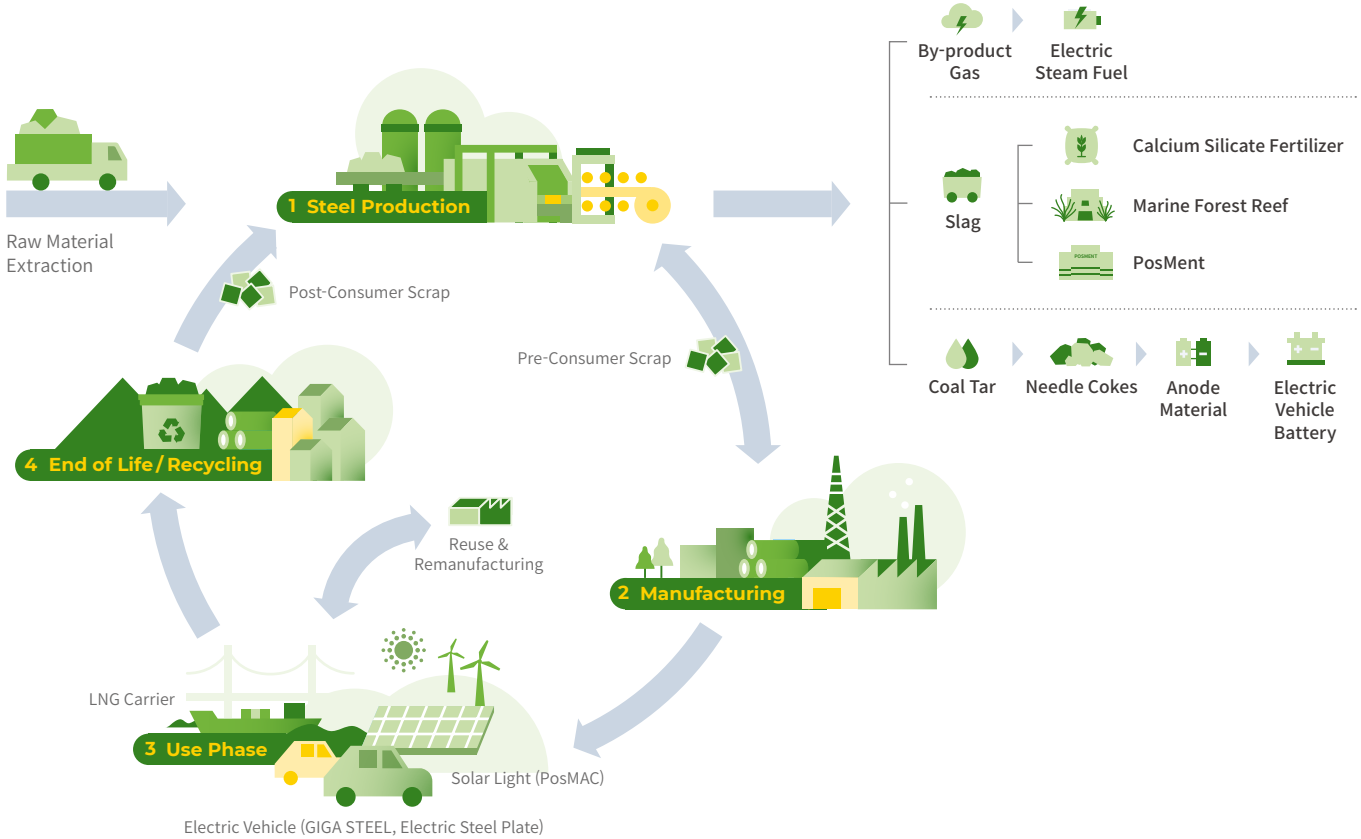
After 8  
months  
(2021.1)  
Seaweed  
coverage of  
TRITON reef  
over 80%

Seaweed Coverage:  
10 or more objects per m<sup>3</sup>



# Life Cycle of Steel

In the low-carbon circular economy era, it is becoming more and more important to use environmentally friendly materials. Because of this, the life cycle perspective is being adopted on business activities to consider the use, manufacturing, and disposal of products. Steel products used in automobiles, shipbuilding, and construction are considered eco-friendly and help promote low-carbon businesses due to their high recycling rates. POSCO actively supports businesses that aim for a low-carbon strategy by working with customer companies that use renewable energy or eco-friendly ships and cars.



## 1 PRODUCTION

By-products such as scraps, slag, and gases generated from steel production can be recycled as raw materials for other production processes. Recycled byproducts can be used as valuable resources inside and outside the company for purposes like construction, agriculture, marine, power generation, and battery manufacturing.

## 2 MANUFACTURING

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

## 3 USE

**Lightweight Steel** GIGA STEEL, POSCO's cutting-edge steel material, is rated excellent in terms of safety and high strength quality. It is used to improve fuel efficiency\* by reducing the weight of the automobiles, which also results in less greenhouse gas emissions from driving.

\*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.

**Longer Service Life** The use of steel with high corrosion resistance prolongs the service life of offshore marine structures and offshore solar power generators that are often exposed to corrosive water environments. This type of steel helps minimize the use of resources and reduces pollution that results from rebuilding these structures.

## 4 RECYCLING

**Reuse** POSCO A&C relocatable steel structure modulares are manufactured at the factory and assembled on site. The fact that they can be easily disassembled and transported makes them reusable. Our mobile modular was used to build the Media Residence during the 2018 Pyeongchang Winter Olympic Games.

**Recycling** Iron and steel are easy to re-collect with the use of magnetic force. It has a high recycling rate\* as it can be reused almost infinitely and has a low amount of impurities.

\*Recycling Rate: Construction 85%, Automobile 90%, Machinery 90%, Home Appliances 50% (Source: World Steel Association, Steel FACTS)

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# Strengthening Business Competitiveness Smart Factory

POSCO is establishing a smart factory to lead the fourth industrial revolution. We are leading the development of customer-tailored technologies utilizing AI in blast furnace operations, quality enhancement, and solution technology development.

# USEOFDRONESININVENTORY  
MEASUREMENT

# SMARTWATCH

# HOT-ROLLINGSMART  
INTERGRATEDOPERATING ROOM

# AIBLASTFURNACE

# COATING REMOTE  
CONTROL

# ONE-TOUCHAUTOMATIC  
TAPPING



## Accelerating Digital Transformation with the Lighthouse Factory

POSCO, which was chosen by the World Economic Forum to be the first Korean "lighthouse factory" manufacturer 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 steelworks.

### 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

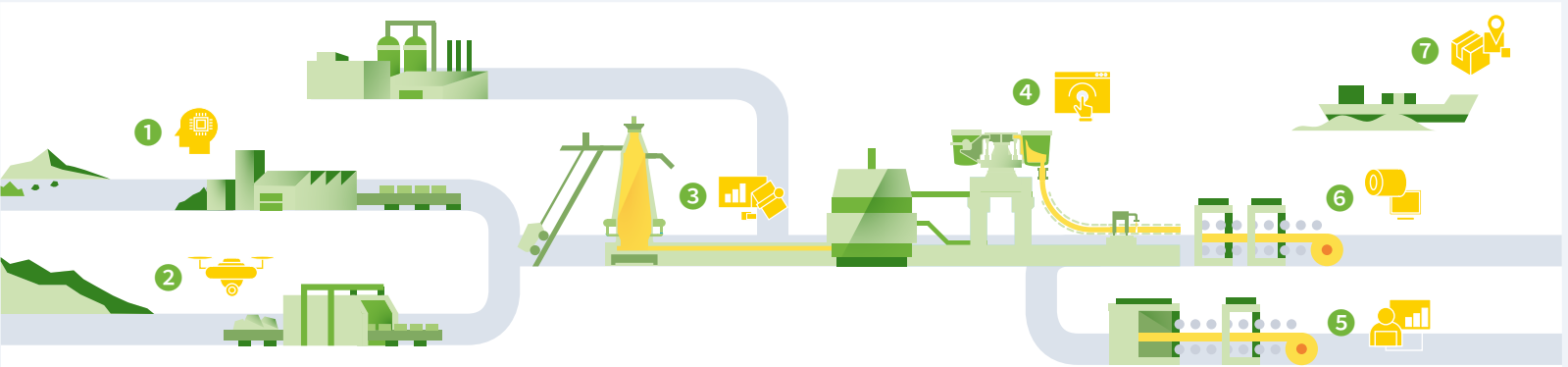
We are improving power generation efficiency by optimizing combustion control of power plants that utilize by-product gas from steel plants and detecting equipment abnormalities in the early stages. In addition, we have developed a real-time automatic combustion control model through furnace operation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

#### Building 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.



#### 1 Production Plan

**Reduced design time for Small Lot orders**  
AI technology is reducing the average processing time of Small Lot from 12 hours to 4 hours.

#### 2 Iron making (Raw Material Yard)

**Real-time tracking of raw materials and measurement of inventory using drones**  
We track the loading and unloading, stowage, and the transferring of raw materials to blast furnaces, simulate the optimal mix of raw materials and safely and accurately measure the raw material yard inventory using drones.

#### 3 Iron making (Blast Furnace)

**Increasing molten iron through AI Blast furnace**  
We are aiming for an eco-friendly operation that drastically reduces carbon dioxide by establishing an "AI Blast furnace" that checks and studies the status of the Blast furnace.

#### 4 Steelmaking

**Automated and intelligent application of high-quality molten steel production**  
AI technology automatically controls the temperature and composition of the steel, and automates the tapping of the molten steel with one button to build a precise and safe process.

#### 5 Rolling

**Establishment of the world's first hot-rolling smart intergrated workroom**  
In July 2020, an integrated hot-rolling operating room with AI technology was established to control the reheating, rolling and coiling process in on place.

#### 6 Galvanizing

**Ultra-precision coating weight control and remote control of overseas businesses**  
By applying Coating Weight Control Based on artificial intelligence technology to 16 CGL plants at home and abroad, Gwangyang

Steelworks provides products of the same quality to customers around the world.

#### 7 Shipment

**Data-driven inventory forecasting to ensure timely delivery**  
From warehousing to shipping, we predict short and long-term inventory and manage wiring information through big data analysis, and deliver products to customers at the required time.





## BUSINESS

# Strengthening Business Competitiveness Lithium-Ion Battery (LiB)

POSCO is preparing for the era of eco-friendly mobility, focusing on electric vehicles. As a growth engine of POSCO Group, we have established a strategy promoting LiB materials business and investing in raw materials as well. In 2020, we successfully completed the validation of the Demo-Plant based on Lithium Brine in Argentina. In addition, we invested in large-scale plants of the cathode with an annual capacity of 60,000 tons per year, and launched the artificial-graphite anode project in Korea for the first time. POSCO Chemical, a subsidiary specializing in secondary battery materials, has successfully raised 1.3 trillion KRW through a paid-in capital increase to secure the financial resources necessary for full-scale business expansion.

- # ELECTRIC VEHICLE
- # DOMESTIC PRODUCTION
- # RENEWABLE ENERGY
- # CARBON NEUTRALITY
- # FUTUREOFMOBILITY



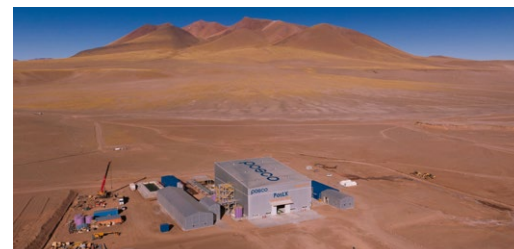
### Raw Material Business: Lithium

2030 Business Target

Production capacity of Lithium Production System

**220,000** tons per year

POSCO is executing the lithium extraction business by securing lithium raw materials of high-quality brine (Argentina) and ore (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 brine in Argentina and the verification of its 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 achieve a 220,000 ton per year of lithium production capacity by 2030. We are also making various efforts for a stable supply chain for raw materials such as developing nickel smelting processes based on our steel-making production and impurity control technology, entering the battery-recycling business that extracts nickel and lithium from waste batteries, and investing in overseas graphite mines.



▲ Lithium Brine Demo-Plant in Argentina

### Cathode Material Business

2030 Business Target

Production capacity of Cathode Material

**400,000** tons per year

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 cathode material products containing more than 80% nickel to meet the market demand for cathode materials with high energy density such as extended mileage and rapid charging. In addition, we are actively responding to demand by expanding the production scale of cathode materials 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 promoting new customers and demands 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.



▲ Cathode Material Plant in Gwangyang

### Anode Material Business

2030 Business Target

Production capacity of Anode Material

**260,000** tons per year

POSCO Chemical is the only domestic supplier of both cathode and anode materials. Anode materials are vital for lithium ion batteries. Although POSCO Chemical was a latecomer compared to Japanese and Chinese competitors when it entered the natural graphite anode material business in 2010, it secured product material performance in a short period of time and achieved production automation and innovation. In particular, by establishing a mass production in domestic market, it is 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 stable inner structure, therefore it is better in aspect of 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 both of natural and artificial graphite. In the future, we plan to increase our annual production capacity to 260,000 tons by 2030.



▲ Anode Material Plant in Sejong

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# Strengthening Business Competitiveness Marketing

POSCO is trying to accelerate sales of World Top Premium (WTP) products, which are high-value-added product that combine technology, marketability, and profitability. In particular, we are strengthening our marketing by fostering an eco-friendly industry ecosystem that will help us secure a future growth market in the post-COVID era and create a mutually beneficial relationship with our customers.

#WTP #ECO-FRIENDLY  
MARKETINGSTRATEGY  
#DEVELOPMENTOF  
ECO-FRIENDLYECO-SYSTEMS #E-AUTOPOS  
#INNOVILT



## World Top Premium Products

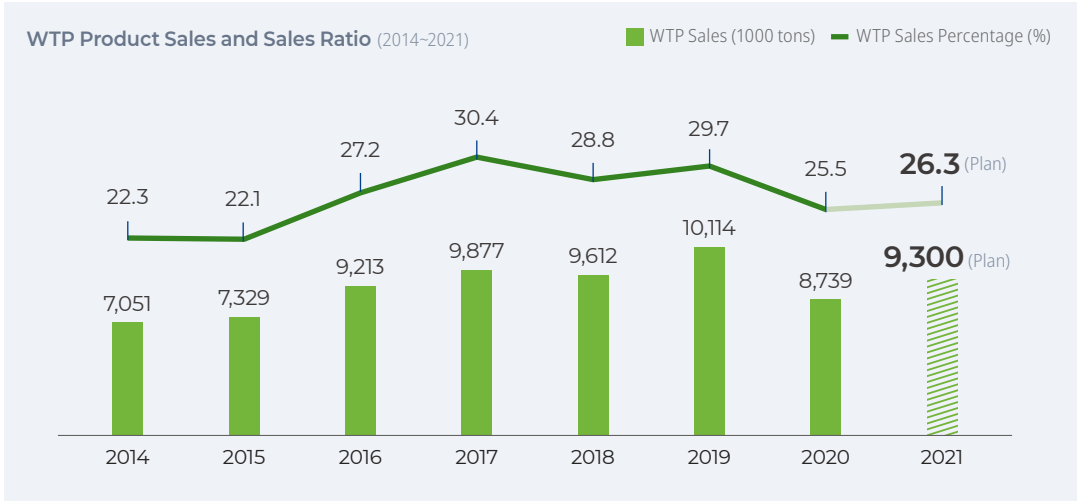
POSCO introduced the concept of World Premium (WP) back in 2014 and since then is pursuing a marketing strategy centered on high-value-added products. We are combining POSCO's World First (WF) products and World Best (WB) products to form World Top Premium (WTP) products that focus on strengthening our premium marketing approach. In 2020, we were developing products that have a high future potential by segmenting our marketing strategy into World Top Premium Future (WTP-F) and World Top Premium Candidate (WTP-C). These strategies take into account the lifecycle, technology completeness, and profitability of our products. In 2020, POSCO's WTP product sales amounted to 8.74 million tons with a WTP product sales ratio of 25.5%. These numbers were better than expected, even despite the unprecedented decline in industry demand due to COVID-19.

## Fostering an eco-friendly ecosystem through customer cooperation

POSCO is focusing its marketing capabilities on the eco-friendly industry market. In particular, we created a platform between various departments and customers. We are promoting comprehensive cooperation by selecting 11 major eco-friendly products including solar energy structures, wind turbines, and electric vehicle motors to reduce environmental pollution. Through various support activities, such as joint technology development, promotion of project orders, and regular consultations, we have increased our sales by 530,000 tons, which is 144% of our target and 171% up from the previous year.

## Customer Satisfaction Surveys

POSCO conducts customer satisfaction surveys with the help of external market research firms to get customers' opinions on products and services. In 2021, we plan to reveal the changes in customers' needs before and after COVID-19 as well as ESG inquiries.



## 11 Product Lines for Eco-friendly Platform Activities

Energy	Eco-friendly Product lines	Products (steel grade/specification)
	Wind Turbine Tower Substructures	High-strength structural steel for wind turbine tower and substructure (EN-S355)
	Solar Power Structures	Alloy coated steel with high corrosion resistance (PosMAC)
Shipbuilding	Eco-friendly Product lines	Products (steel grade/specification)
	LNG Fuel Tank	Cryogenic Steel (High-Nickel Steel, High-Manganese Steel)
	LNG Storage Tank	Cryogenic Stainless Steel (304L)
	SOx Scrubber	High-Alloy Stainless Steel for Desulfurization Unit (S31254)
Automotives	Eco-friendly Product lines	Products (steel grade/specification)
	Traction Motor	Non-Oriented Electrical Steel for Traction Motor (Hyper NO)
	Eco-Friendly Mobility Traction Motor	
	Hydrogen Fuel Cell Bipolar Plate	Stainless Steel for Hydrogen Fuel Cell Bipolar Plate (470FC)
	Eco-Friendly Car Parts	High Carbon Steel for Automotives (POSA1081)
	Eco-Friendly Wire Rod Parts	Graphite Free-Cutting Steel (PosGRAM)
Home Appliances	Eco-friendly Product lines	Products (steel grade/specification)
	Home Appliances Compressor	Non-Oriented Electrical Steel for Home Appliances (Hyper NO)



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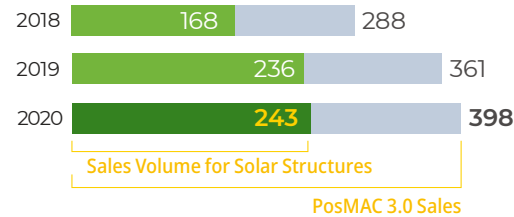
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## Energy

### Eco-friendly Solar Structure Steel, PosMAC

PosMAC is a model WTP (World Top Premium) product developed by POSCO's unique technology. It is a high-end steel plate coated with zinc-magnesium-aluminum (Zn-Mg-Al) alloy. PosMAC prevents surface corrosion and improves corrosion resistance of cutting surfaces due to the protective film created by oxidation of the three-way plated layer. It is five times more resistance to corrosion than ordinary zinc-plated products. For solar power structures, applying PosMAC can ensure a longer period of use, since corrosion resistance is a major factor in determining the life span. 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 PosMAC to eco-friendly power generation facilities such as solar and wind power.

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

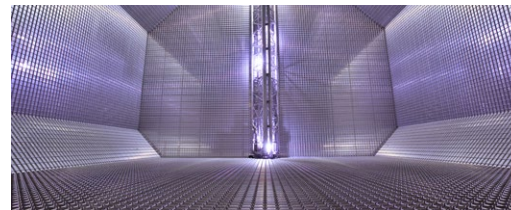


▲ Applications of POSCO PosMAC Photovoltaic Structures

## Shipbuilding

### STS Steel for Eco-friendly LNG Storage Tanks

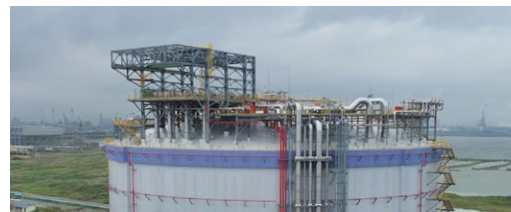
POSCO plays a part in the increasing popularity of LNG, an eco-friendly fuel, by developing and supplying STS steel used for LNG carriers. POSCO's reputation is well-recognized in the industry, as POSCO products are supplied to most LNG carriers using STS steel. Recently, we also started diversifying our market with onshore storage tanks and fuel tanks for LNG propulsion ships.



▲ Inside an LNG carrier made of our 304L steel for LNGs  
(Source: GTT)

### 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 designs with prepaid certification of new materials and revision of international 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.

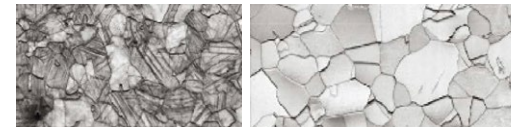


▲ Gwangyang LNG Terminal No. 5 Storage Tank with POSCO's High-Manganese Steel

## Automobiles

### Eco-friendly GIGA Steel

In line with the commercialization of smart cars, POSCO is taking the lead in developing and producing next-generation automotive steel sheets which dramatically reduce the weight of a vehicle. "GIGA Steel" is a steel plate that can hold more than 100kg of weight per 1mm<sup>2</sup> area. It is 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 in price, and 2.1 times less expensive in processing costs. GIGA Steel is gaining more attention as an eco-friendly product that reduces accumulated CO<sub>2</sub> 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.



▲ Application Example of TWIP Steel

## Home Appliances

### Steel that modernizes the home appliance industry, Hyper NO

POSCO is working on developing and producing Hyper NO\*, steel that reduces electricity and greenhouse gases. The 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 improves motor core tightening with coating rather than welding. If the compressors of the energy-efficiency class 2-5 refrigerators sold in Korea were replaced with high-efficiency compressors made of POSCO Hyper NO, it would reduce electricity use by 7.1GWh and greenhouse gases by 3,300 tons every year.

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



▲ Motor core with POSCO self-bonding technology applied (above)  
Premium refrigerator with POSCO Hyper NO (below)



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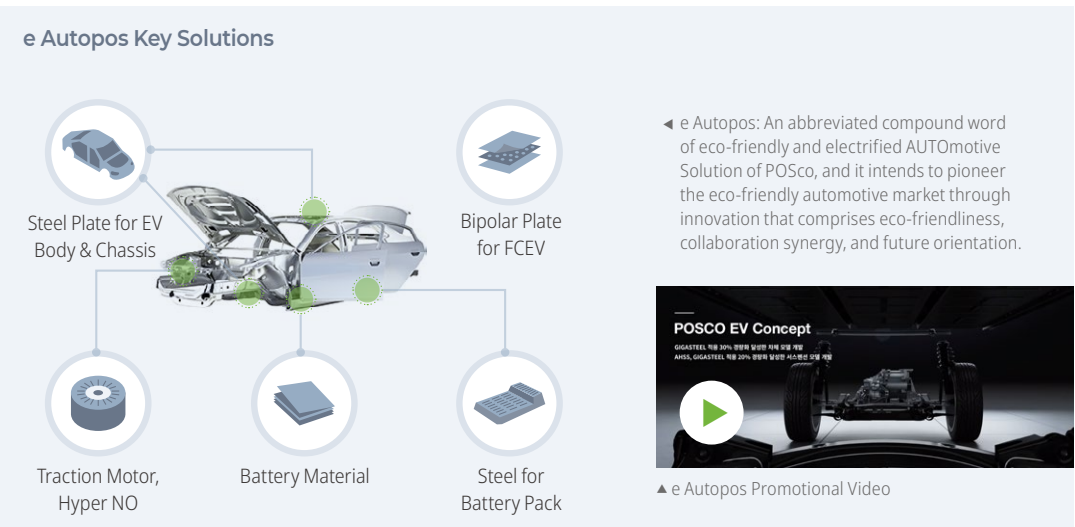
Eco-friendly Industries, the Future Flagship Market

POSCO is dominating the future growth market by expanding and diversifying our 11 eco-friendly product platform business from 2020. Six future eco-friendly markets, including eco-friendly cars, lightweight car bodies, wind power, solar energy, LNG, and hydrogen, and 22 specific items were selected to segment and advance the eco-friendly 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 has set an ambitious goal to increase sales of eco-friendly products to 2.7 million tons in 2021, focusing on developing related steel materials and solutions. We also believe continuing our mid-to-long-term eco-friendly marketing strategy will help us achieve the 2050 carbon-neutral goal.



Launch of an Integrated Brand of Eco-Friendly Vehicles “e Autopos”

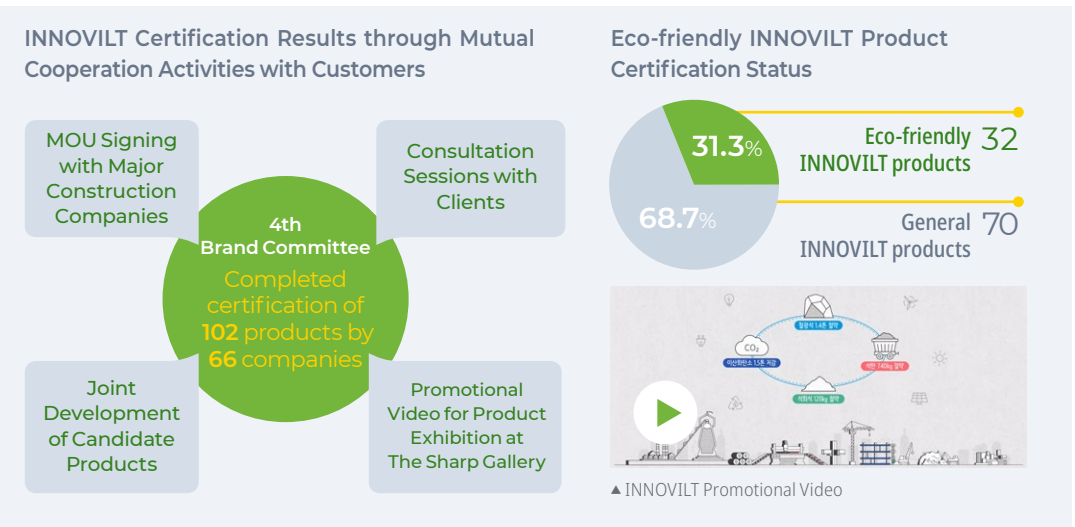
POSCO aims to lead the market by launching its own eco-friendly car brand “e Autopos”, setting global eco-friendly car development trends. Key aspect of e Autopos include high-tensile steel plates for body and chassis, exclusive steel materials for battery packs, energy-efficiency steel plates in motors, metal separation plates for hydrogen-run electric vehicles, and positive/negative electrodes for secondary battery materials. In the future, we plan to combine the Posco group capabilities of POSCO International, POSCO Chemical, and POSCO SPS to provide steel products for eco-friendly vehicles, secondary batteries, and customized solution packages to customers.



Eco-friendly Premium Brand of Steel Products for Construction "INNOVILT"

POSCO launched the premium construction steel brand INNOVILT, based on the combination of innovation, value, and building, in November 2019. 102 products from 66 companies were reviewed four times by the internal and external expert brand committees and selected as INNOVILT-certified. For instance, these products range from structural steel materials used in building framework, to interior materials that are easily accessible to ordinary consumers. More than half of all certified products are commercialized through joint development with POSCO. 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 was created as an opportunity for allied companies producing certified products to meet with general construction companies and designers in person. At the same time, we are diversifying our business channels through cooperation with major construction companies in Korea. POSCO is providing additional R&D support for products that have not been INNOVILT-certified to assure continuous development of quality steel products for construction and to strengthen competitiveness.

Going beyond platform business with customers, POSCO strives to develop renewable low-carbon and eco-friendly steel products that meet market needs. Along with our customers, we are strengthening our innovative eco-friendly brand image with high-end steel ForceMac-based products such as solar energy structures, guard rails, and external panels, as well as high-strength hot-rolled products such as architectural steel pipes, steel pipe piles, and scaffolding systems. INNOVILT products were exhibited at The Sharp Gallery, which opened in April in Seoul, and visitors could experience the appearance and quality of premium steel materials in a home. POSCO hopes to enhance the public understanding of INNOVILT and further strengthen its brand through a variety of media. We will continue to work with our customers to focus on developing eco-friendly innovative products and solutions.





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## ? 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 We Respond?

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 steelworks. 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.



Coastal area off Ulleungdo showing POSCO's steel slag-based TRITON sea forest site



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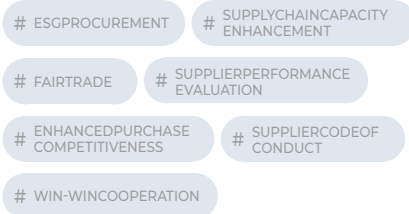
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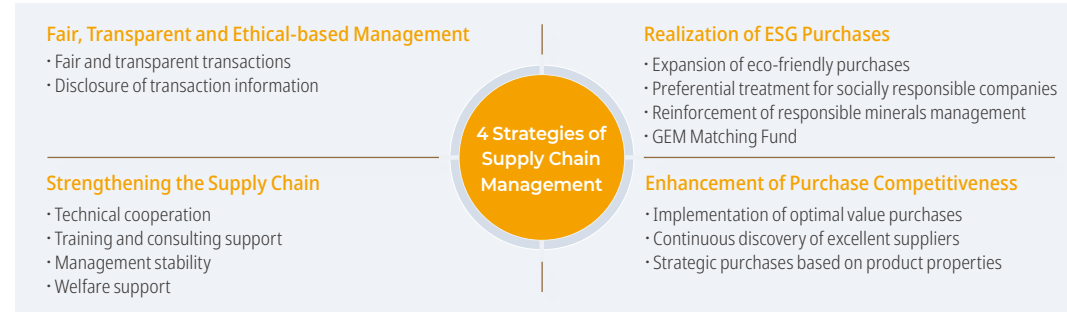
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# Sustainable Supply Chain

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



### ESG Purchase Policy

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 for them to register 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 the production of hydrogen and low-carbon technology 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.

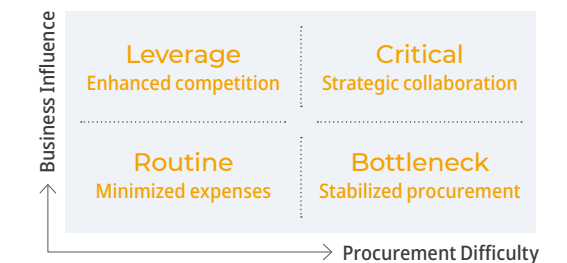
## Strengthening the Supply Chain

As one might expect from a small market like the Korean steel materials industry, the chances of diverse new suppliers to successfully enter the market are slim. In order to establish a stable procurement system, it's critical for existing small and medium-sized suppliers to maintain sustainable management. To that end, POSCO supports capacity enhancement for such suppliers through technical cooperation, support programs for management stability, and training and consulting services.

## 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.

### Strategic Characteristics Analysis



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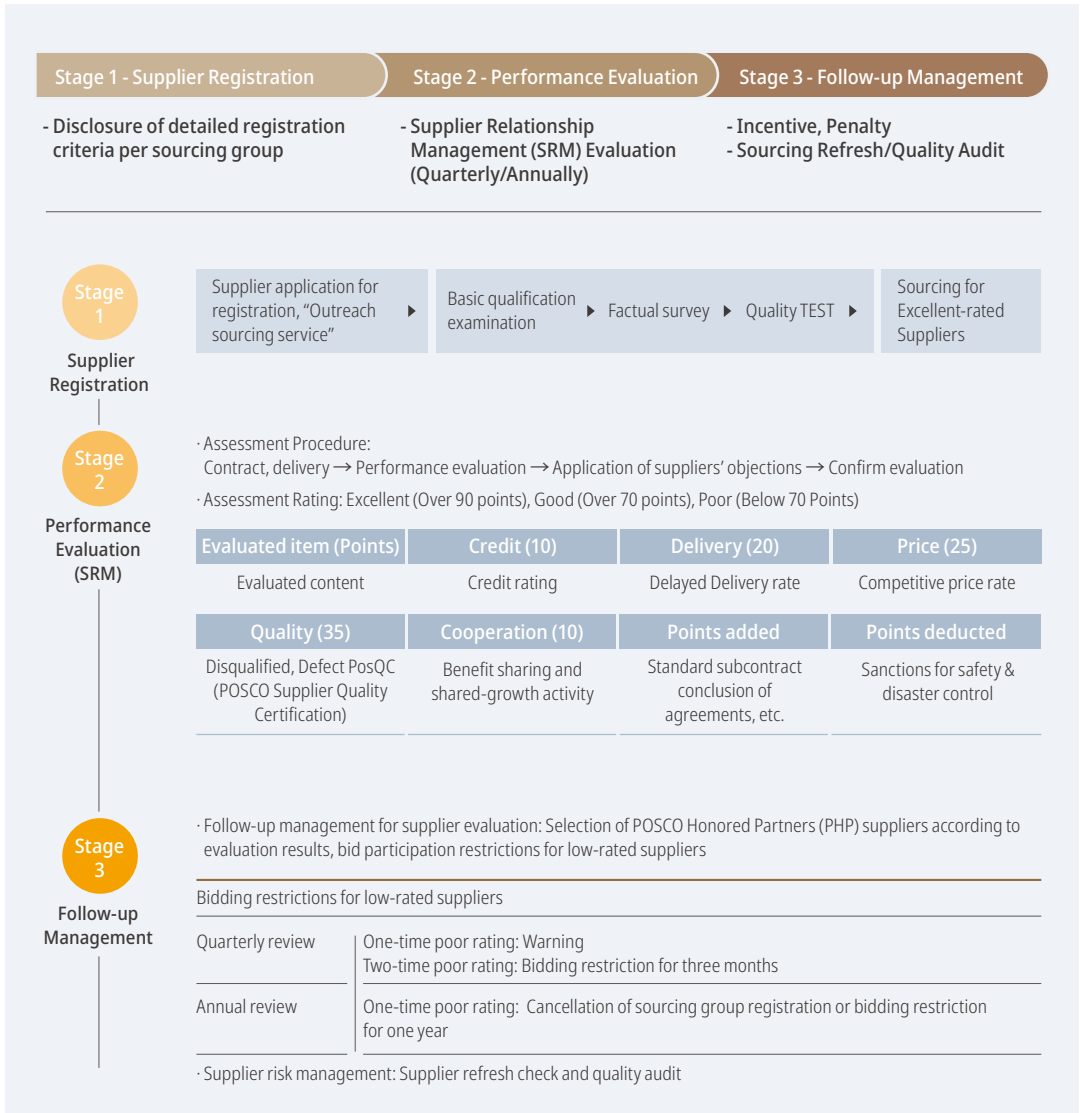
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Supply Chain Management Process

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.



Supplier Registration

POSCO operates sourcing groups as item units 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. Upon registration, training is offered on the Supplier Code of Conduct and the Special Clause on Ethical Practices.

Supplier Relationship Management (SRM)

POSCO implements SRM throughout the supply chain to enhance competitive power. Evaluation criteria includes credit, delivery, price, quality, and cooperation. Suppliers with previous trade history with POSCO are subject to evaluation, which provides them with feedback on their strengths and weaknesses, encouraging improvement and enhancing supply competence. From 2021, POSCO combined the previous system of multiple ESG items into a single category and is executing a complete ESG diffusion throughout the supply chain with an evaluation ratio increasing from 15% to 35%. The existing three-grade evaluation rating has been subdivided into five ratings (Excellent, Good, Average, Weak, and Poor) for differentiated supply chain management per grade.

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

2. Improvement of Previous Supplier SRM Evaluation

- Combination of previously dispersed ESG-related items
- Increased evaluation ratio for ESG-related items (Previous Maximum 15% → 2021 Maximum 35%)

Cooperation (Environment)

Additional points

ESG

3. Differentiated Supply Chain Management Through Subdivided Ratings

- New 5-level rating system: Excellent, Good, Average, Weak, Poor

· Major ESG Evaluation Indicators

- Eco-friendly 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 ratings



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Assessment results per grade

Classification		Unit	2018	2019	2020
Subject	Registered suppliers per sourcing group	Number	1,461	1,484	1,398
	Delivery performance supplier	Number	721	741	738
	Ratio of contract suppliers with SRM evaluations	%	100	100	100
Assessment results	Excellent	Number	187	167	275
	Good	Number	464	487	403
	Poor (High-risk group)	Number	70	87	60
Follow-up management	Ratio of poor-rated companies with set improvement plans	%	43%	91%	100%
	Bidding restrictions	Number of bids	15	13	20

\* Internal management criteria were modified based on registered suppliers per sourcing group, with criteria differing from the 2019 POSCO Corporate Citizenship Report. Overlaps may occur with suppliers if they are registered in multiple sourcing groups.

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 fall 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. We target suppliers with frequent quality issues by diagnosing their level of quality management. This helps us to find and root out the cause of quality issues which, in turn, helps the suppliers to improve their quality.

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.

POSCO Group Supplier Code of Conduct Summary			
Environment	Respect for Human Rights	Shared Growth and Social Contributions	Ethics and Fair Trade
<ul style="list-style-type: none"><li>• Prevention of waste water, solid waste, and air pollution</li><li>• Pollution prevention and reduction of resource use</li></ul>	<ul style="list-style-type: none"><li>• Prohibition of child labor, discrimination</li><li>• Humane treatment of workers</li><li>• Management of responsible minerals</li></ul>	<ul style="list-style-type: none"><li>• Expansion of shared growth</li><li>• Fulfillment of social contributions</li></ul>	<ul style="list-style-type: none"><li>• Business integrity</li><li>• Compliance with Special Clause on Ethical Practice</li><li>• Reinforcement of fair trade</li></ul>
Health and Safety	Trade Secrets and Intellectual Property Protection		Quality Management
<ul style="list-style-type: none"><li>• Safe occupational environments</li><li>• Hygienic workplaces</li><li>• Compliance with health regulations</li></ul>	<ul style="list-style-type: none"><li>• Management and protection of restricted information</li><li>• Protection of intellectual property</li></ul>		<ul style="list-style-type: none"><li>• Strengthening of quality control for supply chain</li></ul>

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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, Hanhwa 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.

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](http://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 employees of small business partners who were unable to have access to company daycare centers 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.



▲ POSCO and P-ICT employees visiting Hansung Enterprise Co., Ltd. for technical consulting

## Responsible Minerals

In 2020, POSCO became the first Korean steelmaker to join the RMI<sup>1)</sup>, 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-afflicted 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)<sup>2)</sup> 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 Raw Materials Office under Purchasing and Investment Division as its base, ESG Group, Legal Affairs Office, LiB Materials Business 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 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.

\* 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)

### Responsible Minerals Policy: Supply Chain Management

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

#### Responsible Minerals Policy Framework

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

#### Major Management Areas

Policy / Leadership	Supplier identification / Participation
Process / Organization	Risk assessment / Mitigation
Stakeholder capacity	Transparent disclosure

#### Responsible Minerals Management Roadmap

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

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

No	Metal	ID	Smelting plant location	Mineral origin	RMAP Certification
1	Tin	CID001477	Indonesia	Indonesia	Certified
2	Tin	CID001482	Indonesia	Indonesia	Certified
3	Tungsten	CID002724	Russia	Russia	Certified
4	Tungsten	CID002843	Korea	Bolivia	Certified
5	Tungsten	CID002315	China	China	Certified
6	Cobalt	CID003261	DR Congo	DR Congo	Certified

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# GEM Matching Fund

POSCO launched a 1:1 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.



## Current Management Status of GEM Matching Fund

Fund Title	No. 1 Opal	No. 2 Emerald	No. 3 Sapphire	No. 4 Diamond	No. 5 Gold	No. 6 Tourmalina Paraiba	No. 7 Aquamarine
Supplier	Yancoal	Xcoal	FMG	Anglo American	BHP	CBMM	Vale
Beneficiary	Clontarf Foundation Tree Planet	Tree Planet	Jeollanam-do Human Resources Development Foundation	Tree Planet	Tree Planet	Three companies aside from Brazil NGO ASFAP (Association of Families of Pecem)	Maraba Knowledge Station
Activity	<ul style="list-style-type: none"><li>Supporting job training for Australian Aborigines, providing mining jobs</li><li>Developing Seoul's elementary school classroom forests</li></ul>	<ul style="list-style-type: none"><li>Reforestation in fire-damaged areas of Okgye, Gangneung</li><li>Training underprivileged teenagers in mining districts of West Virginia, U.S.</li></ul>	<ul style="list-style-type: none"><li>Supporting Jeollanam-do Human Resources Development Education Fund</li></ul>	<ul style="list-style-type: none"><li>Reforestation in fire-damaged areas of Okgye, Gangneung</li></ul>	<ul style="list-style-type: none"><li>Reforestation in fire-damaged areas in Pyeongchang</li></ul>	<ul style="list-style-type: none"><li>Providing education funds for low-income students in Brazil</li></ul>	<ul style="list-style-type: none"><li>Providing education funds for low-income students in Brazil</li></ul>



▲ GEM No. 2, Okgye Emerald Forest signboard



▲ GEM No. 2, Okgye wildfire damage Emerald Forest Site



▲ GEM No. 3, Commemorative ceremony, Fortescue Metal Group (FMG)'s video message



▲ GEM No. 4, Okgye Diamond Forest Site

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# Co-Prosperity with Stakeholders

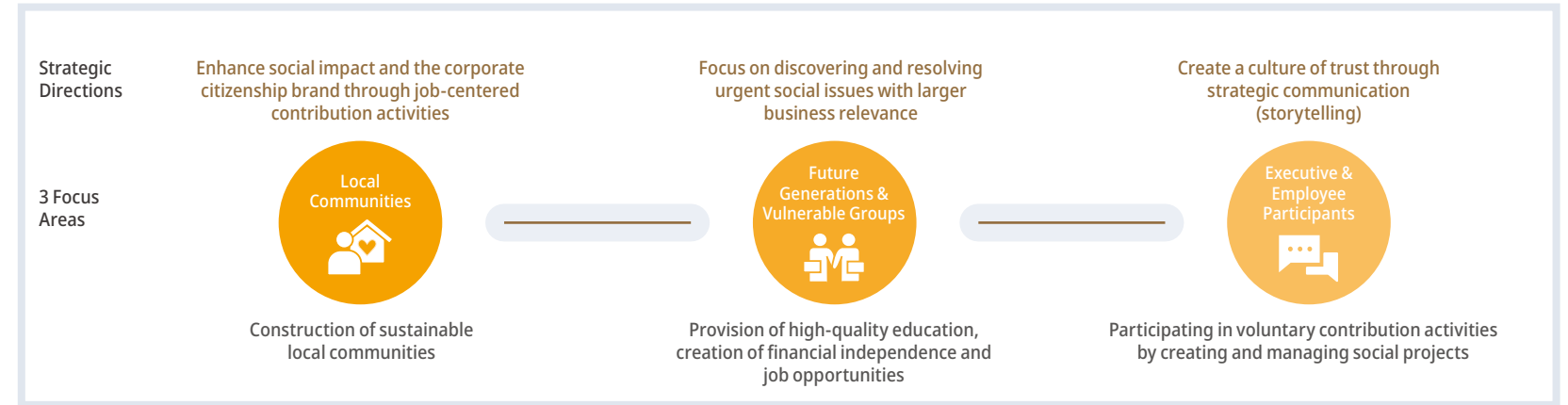
## Social Contribution

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.

- # CO-PROSPERITYVALUE
- # SOCIALIMPACT
- # BUILDINGTOGETHER
- # VOLUNTARY  
SERVICEANDSHARING
- # TALENTDONATION  
GROUPS
- # FOSTERINGFUTURE  
GENERATIONS



## Strategic Directions and Focus Areas



## 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

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Local Community

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

Activity Titles	Activity Contents		Operational Performance in 2020
Sisterhood Villages	<ul style="list-style-type: none"><li>• Began in Hagwang Village, Gwangyang in 1988</li><li>• One sisterhood village matched with each company division, regular sisterhood relationship in progress</li></ul>		<b>208 Sisterhood Villages</b> (127 in Pohang, 81 in Gwangyang)
Soup kitchens	<ul style="list-style-type: none"><li>• Established in Pohang and Gwangyang in May 2004</li><li>• Supported food and facility costs for the running of soup kitchens</li><li>• Implements executive and employee participant-led meal services</li></ul>		<b>Operated 5 soup kitchens</b> (3 in Pohang, 2 in Gwangyang) <b>Provided operating expenses totaling 713 million KRW (2020)</b> <b>960 daily beneficiaries/ 250,000 annual beneficiaries</b>
Slag fertilizer project	<ul style="list-style-type: none"><li>• Supported calcium silicate fertilizer made from slag, a steel-making by-product, for the cultivation of high-quality farm produce</li></ul>		<b>Brewed makgeolli rice wine with harvested rice 13,000 bottles</b>
COVID-19 aid activities	<ul style="list-style-type: none"><li>• Donations to prevent the further spread of COVID-19, support for quarantine and medical personnel</li></ul>		<b>POSCO Group</b> Contributed <b>5 billion KRW</b> (Made corporate recreational space available as self-quarantine facilities)
Steel Villages	<ul style="list-style-type: none"><li>• Since 2009, improved the residential environments of disadvantaged groups and constructed public facilities to create sustainable local communities</li></ul>		<ul style="list-style-type: none"><li>• Cilegon, Banten Province, Indonesia: 0.3 billion KRW (Cumulative total: 1 billion KRW)</li><li>• Uiseong, Gyeongsangbuk-do Province: 0.5 billion KRW</li><li>• Vietnam: 0.1 billion KRW</li></ul> Cumulative total of <b>39,503</b> beneficiaries Cumulative support fund of <b>13.1</b> billion KRW
Cultural arts	<ul style="list-style-type: none"><li>• Operated a history museum, art gallery, and art halls in Pohang and Gwangyang, with complimentary performances and exhibitions for all local citizens</li></ul>		<b>12,194</b> POSCO Art Hall visitors <b>11,826</b> POSCO Art Gallery visitors <b>4,625</b> POSCO History Museum visitors



▲ Volunteer work in Sisterhood Villages – seasonal farming labor assistance



▲ COVID-19 aid – Delivery of medical kits to medical personnel



▲ Steel Village – Youth Village, Uiseong, Gyeongsangbuk-do Province



▲ Steel Village - Cilegon, Indonesia (waste disposal facility)

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## 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.

Activity Titles	Activity Contents	Operational Performance in 2020
<b>Beyond</b> (College student volunteer group)	<ul style="list-style-type: none"><li>• Founded in 2007</li><li>• 100-person college student team selected as volunteers regardless of region, age, major, or gender</li><li>• Volunteer activities such as steel house construction, talent volunteering, and cultural exchange are carried out for a year</li></ul> <b>Major Utilization Programs in 2020</b> <ul style="list-style-type: none"><li>• Renovated Pohang's 5 public facilities including the village hall and women's society hall</li><li>• Renovated 5 schools in Indonesia</li><li>• Implemented creative planning projects to discover, plan, and execute solutions to local social issues</li></ul>	<b>46</b> national colleges <b>100</b> students selected (50 female/50 male)  Cumulative Beneficiary Statistics of Beyond Activities <b>1,233</b> Domestic (182 families, 5 public facilities) <b>1,132</b> Overseas (120 families, 5 schools)
<b>Mutually Beneficial Daycare Centers</b>	Workplace daycare centers for the children of employees of POSCO, Group companies and partner companies were newly established in 2020 <ul style="list-style-type: none"><li>• Pohang Dongchon Daycare Center</li><li>• Gwangyang Geumdang Daycare Center</li></ul>	<b>145</b> Beneficiaries <b>58</b> in Pohang / <b>87</b> in Gwangyang
<b>Social Enterprise (POSCO Humans)</b>	<ul style="list-style-type: none"><li>• Established in December 2007 as the first domestic subsidiary-type standard workplace for the disabled (POSWITH)</li><li>* 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.</li><li>• Re-named as POSCO Humans in January 2013 (merged with POS Eco Housing, which had a similar purpose)</li><li>• Recruited disabled individuals with employment difficulties first, priming the pump for job creation for the disabled</li><li>• Implemented not only direct employment for the disabled, but also diverse programs for enhanced competence and improved health to support their social independence</li></ul> <b>Support for Disabled Employees</b> <ul style="list-style-type: none"><li>• Provided medical treatments of up to 8 hours per month, and hemodialysis treatments of up to 16 hours per month for those in need</li><li>• 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</li><li>• Supported assistive technology devices such as accessible wheelchairs for cars</li></ul>	Worksite Locations Pohang, Gwangyang, Seoul, Songdo (Incheon)  Disabled workers make up <b>48.1</b> % of the total ( <b>313</b> of <b>651</b> employees)



▲ College student volunteer group Beyond – Global volunteering work in Indonesia



▲ Mutually Beneficial Daycare Centers – Pohang Dongchon Daycare Center



▲ Social Enterprise POSCO Humans

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Activity Titles	Activity Contents	Operational Performance
POSCO TJ Park (Chungam) Foundation	<p>The Steel Scholarship Foundation established in 1971, is now the POSCO TJ Park (Chungam) Foundation which operates programs for the development of talent throughout local communities in Asia</p> <p><b>POSCO TJ Park (Chungam) Prize</b></p> <ul style="list-style-type: none"><li>• Total of 48 recipients in 4 categories (Science, Community Development &amp; Philanthropy, Education, and Technology)</li></ul> <p><b>POSCO Asia Fellowship</b></p> <ul style="list-style-type: none"><li>• Scholarships for Asian international students in Korea (2005~): 438 students from 32 nations benefited</li><li>• Scholarships for local Asian colleges (2005~): 5,006 students from 33 colleges in 19 nations benefited</li><li>• Asia Opinion Leader Fellowship (established in 2019): 20 guest trainees from 8 nations benefited</li></ul> <p><b>POSCO Science Fellowship (From 2009~)</b></p> <p>387 persons benefited</p> <p><b>POSCO Youth Fellowship</b></p> <ul style="list-style-type: none"><li>• POSCO Vision Scholarship (2006~): 437 local community college students*</li><li>• POSCO Heroes Fellowship (established in 2019): Upright citizens or their children as beneficiaries, 25 persons benefited</li><li>• POSCO Dream Camp (established in 2019): Supports local community middle school students' education, 209 middle school students, 70 college student mentors</li></ul> <p>* Excluding 117 beneficiaries of child head of household support fund</p>	<p><b>478</b> beneficiaries</p> <p><b>12,227</b> beneficiaries (cumulative)</p>
POSCO Educational Foundation	<p><b>Launched in 1971</b></p> <p><b>Total of 12 schools in operation (as of 2020)</b></p> <ul style="list-style-type: none"><li>• 6 in Pohang, 5 in Gwangyang, 1 in Incheon</li><li>• 2 kindergartens, 4 elementary schools, 2 middle schools, 4 high schools, continuous monitoring of aptitudes of individuals from preschool to higher education years</li></ul>	<p><b>2,332</b> beneficiaries (2020)</p> <p><b>126,907</b> beneficiaries (cumulative)</p> <p><b>12</b> schools in operation</p> <p><b>1.0762</b> trillion KRW in contributions (1971~2020)</p>



▲ POSCO TJ Park (Chungam) Prize



▲ POSCO Asia Fellowship



▲ POSCO Youth Fellowship



▲ POSCO Educational Foundation



A photograph showing several students sitting on the floor in a library, working on projects or reading. They are surrounded by bookshelves filled with books. The floor is covered with colorful mats.

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# 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

Number of Contributors  
**35,090**  
(as of December 2020)

Business Revenue  
Total of **10.67** billion KRW  
(as of 2020, executive and employee donations/  
company matching donations/interest earnings)

▼Collaboration Becomes Art Video



## Major Projects

The POSCO 1% Sharing Foundation reflects the executive and employee-targeted survey results to support the disadvantaged including those of future generations, multicultural families, and disabled persons. (Results listed below are based on the 2020 POSCO 1% Sharing Foundation Annual Report) [Direct link to the POSCO 1% Sharing Foundation](#)

### 1 Future Generations

Supporting the strong growth of future generations.

- 1% Sharing Art School  
Cultural arts education centers for local children  
**1,072** child participants from **79** regions
- Sangsang Isang Science Camp  
Experiential science camp made into a mobile game format to comply with COVID-19 regulations  
Classes offered at school sites  
**10** science schools, **1,640** participants
- Do Dream  
Independent living support fund for those discharged from child protection facilities, customized education, and 1:1 case management support  
**35** youth members benefited

### 2 Multicultural Families

Supporting the self-reliance of multicultural families.

- Chin Chin Rainbow  
Program supporting the future career paths of multicultural and disadvantaged adolescents  
Diversified future career path training on art, sports, entertainment, IT, etc., offered along with 1:1 case management support  
**115** students benefited

### 3 Disabled People

Encouraging better lives for the disabled.

- Assist Devices for Persons of National Merit  
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  
Total of **26** selected and benefited
- Hope Wings  
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  
**36** selected and benefited
- Hope Space  
Space design applied with heightened convenience for the disabled, remodeling of local community public facilities for the disabled  
Total of **13** facilities remodeled,  
**562** persons benefited
- Hope Dream  
Customized assist devices provided to professional disabled athletes for enhanced athletic performance and daily convenience  
**690** persons benefited

### 4 Culture/Arts

Supporting culture and arts for the underprivileged.

- CollaboArtion (Collaboration + Art)  
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  
**10** disabled artist team participants  
**20** videos, total view count **7.1** million
- Change My Town  
Employee-led project with the selection and execution of ideas by employees who donated to the foundation to resolve local community issues  
**70** projects implemented in 2020
- 1% MLC (My Little Charity)  
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  
Total of **150** donation recipients  
**25,825** executive and employee participants





# 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 SHE 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.



Young engineers shaping the future of POSCO – Pohang Works, Hot Rolling Dept.

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# Secure Workplace Implementation

Safety is considered the top priority among POSCO's management activities. To abide by 2019's Charter of Corporate Citizenship, we are doing our best to create the best corporate culture and safest workplace in the world. POSCO strives to provide a pleasant working environment with an employee-led autonomous accident prevention system. We are also expanding our health check-up system, allowing employees access to both on-site and external health examinations.

Taking full responsibility for the recent increase in workplace accidents, we have declared 2021 as a Safety and Accident Prevention Period and are working hard to create a new, safer workplace.

# SAFETYFIRST # SMART INFRASTRUCTURE

# SAFETYTRAINING # PARTNERSAFETY

# SAFETYREPORT # WORKSTOP AUTHORITY



## 2021 Safety and Accident Prevention Period: Reorganization of the Safety Organization System

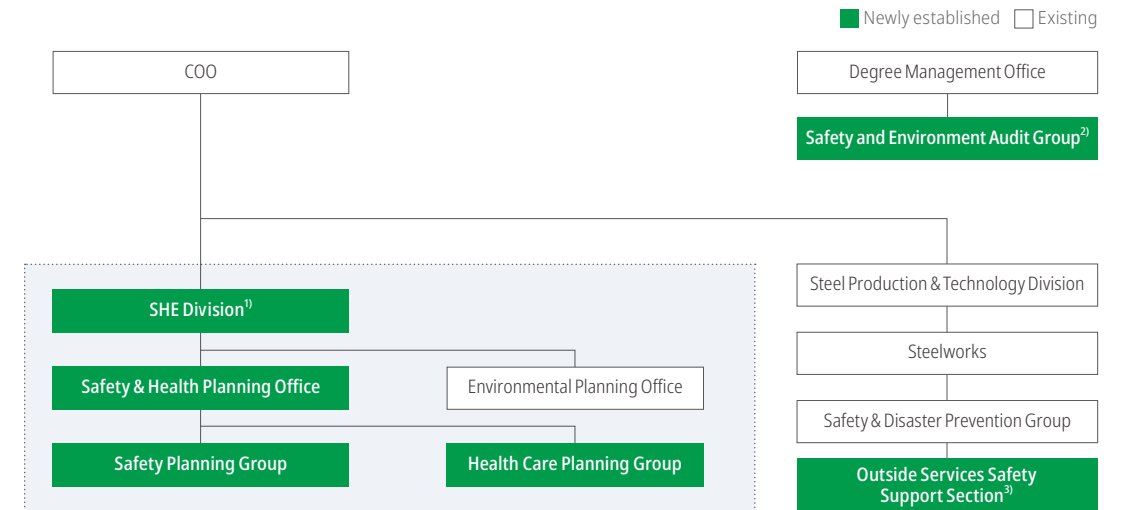
The 2021 Safety and Accident Prevention Period means a reorganization of the Safety Organization System and the implementation of special safety management measures to prevent the recurrence of similar accidents. The SHE Division, newly established under the COO, will function as a group safety environment 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 Outside Services 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 Management Special Measures

#### Operation of the Safety and Accident Prevention Team: Facility Equipment Improvement

Another organization 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 COO heads the team, while the vice-chairperson is in charge of the SHE Division. The task group, which is responsible for the field team, will be supervised by the heads of the steelworks and Technical Research Laboratories. 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.

### Safety Organization Framework



1) SHE Division: General control tower for safety and environment

2) Safety and Environment Audit Group: Inspection of the safety/environmental management system

3) Outside Services Safety Support Section: Dedicated to partner safety management

#### Increased Investment in Safety by 1 Trillion KRW

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.

#### Strengthening Safety: Accident-Prevention Training for All Employees

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. Overall, we plan to strengthen our process safety management capabilities by training numerous steelworks' process risk management experts. 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.





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## Six Ways of Enhancing Safety Management

Introduced in January 2021, the Six Key Implementations on Enhancing Safety Management reflects a shift at our steelworks operations where safety is prioritized over production. At every steelwork, 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, worksites 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 contractor 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 instill 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.

\* TBM: Safety measures taken before starting work by identifying potential risks to the workplace to create a safe working environment.

## 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 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 Steel Business Unit (COO), will be operating year-round to strengthen the work safety culture.



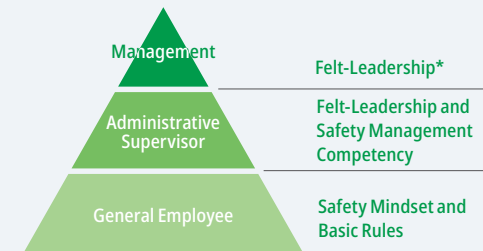
Safety Education and Training

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)

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

Job Level-Based Training



\*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.

- 1 We consider health and safety a key management element, and ensure that it is seamlessly integrated with all other business operations.
- 2 We identify all risk factors before they escalate and take appropriate prevention and improvement measures to constantly enhance our health and safety performance.
- 3 We define health and safety management as a key responsibility to our employees, and provide proper training for everyone to fulfill their role in the matter.
- 4 We have established an internal communication system to ensure the proactive engagement of all employees.
- 5 We encourage related companies to join our health and safety activities to improve the well-being of our partner companies and other stakeholders.
- 6 We set and implement targets and action plans to successfully follow our health and safety management policy and operate an internal review system to periodically evaluate these targets and plans.
- 7 We comply with governmental health and safety regulations and take additional steps to set and operate even more stringent criteria regarding installing and maintaining our facilities, machinery, and equipment.

Six Major Safety Measures to Prevent Accidents

We have been implementing the following six safety measures since February 2021 that POSCO and its partner employees can immediately apply on site. These are the six potential issues that the company is focusing on.

01  
**No inspection or repair of facilities mid-operation**  
Approval by the Deputy Head is required when necessary

02  
**Approval by the Deputy Head of Works is required when working on high-risk locations**  
Risk Assessment (Job Safety Analysis or JSA) results must be attached at the time of approval

03  
**Informing the Work Stop Authority**  
Mention of the Work Stop Authority in the Safety Work Permit

04  
**No direct delegation of safety measures to suppliers**  
Electricity and utility shut-off of associated equipment and valve operation, etc

05  
**CCTVs required in all facilities**  
Use of fixed/mobile CCTVs and body cams

06  
**No access to disaster-risk corrosion sites**  
Approval of deputy director is required where entry and exit are prohibited

Let's prevent accidents by switching to a new working standard that puts safety first!

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 45001 certification for the Global Safety and Health Management System in 2021. [➤ Shortcut to Certificate](#)



▲ Safety site inspection by the safety Part Leader manager

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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**

- Health checkup, treatment, physical therapy, and vaccinations
- Early detection and prevention of occupational illnesses



**Work Environment**

- Measurements (chemicals, dust, noise, heat, etc.)
- Management (personal protective equipment, chemicals, noise/vibration, work that causes musculoskeletal trauma, etc.)



**Health Promotion**

- Improvement of daily habits (smoking cessation, abstinence from alcohol consumption, weight-loss, steady exercise, dietary improvements)
- Psychological counseling on safety and general issues

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)

Category	2018	2019	2020
Employee	16,951	17,298	17,227
Employee Spouse	3,019	2,922	3,324
Total	19,970	20,220	20,551

Medication Provided (Unit: No. of persons)

Category	2018		2019		2020*	
	Partner	POSCO Company	Partner	POSCO Company	Partner	POSCO Company
Beneficiary	79,643	7,525	79,522	7,762	65,639	4,691
Total Beneficiary	87,168		87,284		70,330	

\*Decline in users due to COVID-19

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.



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

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

2018 1,817 users    2019 1,974 users    2020 2,146 users

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# Organization of Trust and Creativity

POSCO is committed to recruiting new talent that will actualize our corporate citizenship philosophy. We look not just for talent in new recruits, but also personality, passion, and a calling to help us fulfill our vision. POSCO values people who we believe will lead to our innovation and growth. To assure their success, we offer various educational opportunities to help our employees evolve. As a company that values fair personnel management, we are also determined to create a workplace free from discrimination based on gender, nationality, race, and disability.

- # POSCOMASTER
- # STEELCHALLENGE
- # NEWTALENT
- # POSTUBE
- # RESPECTDIVERSITY
- # SOLUTIONTOLOW BIRTHRATE



## Recruitment

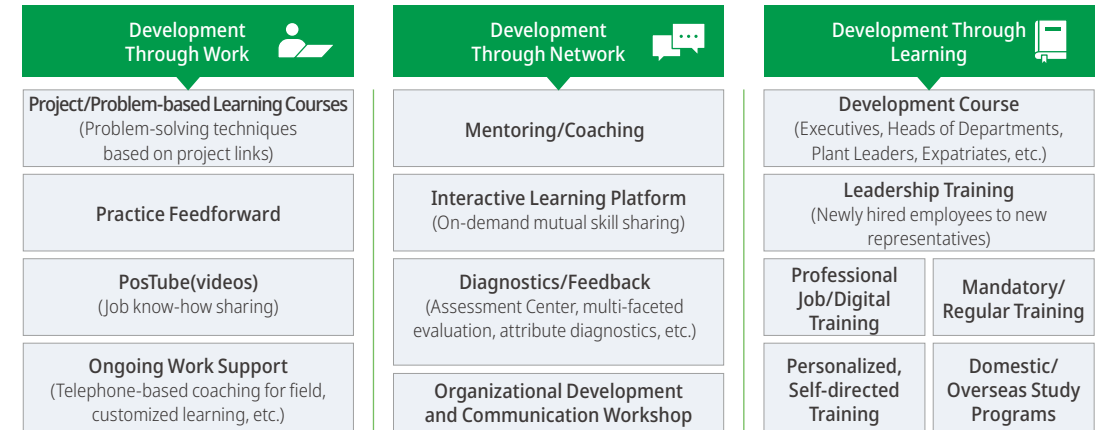
POSCO recruits new talent based on their knowledge but also looks for the necessary qualifications as future corporate citizens. During open recruitment, we select “creative talent with a practical and caring mindset.”

➤ Recruitment Website

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.

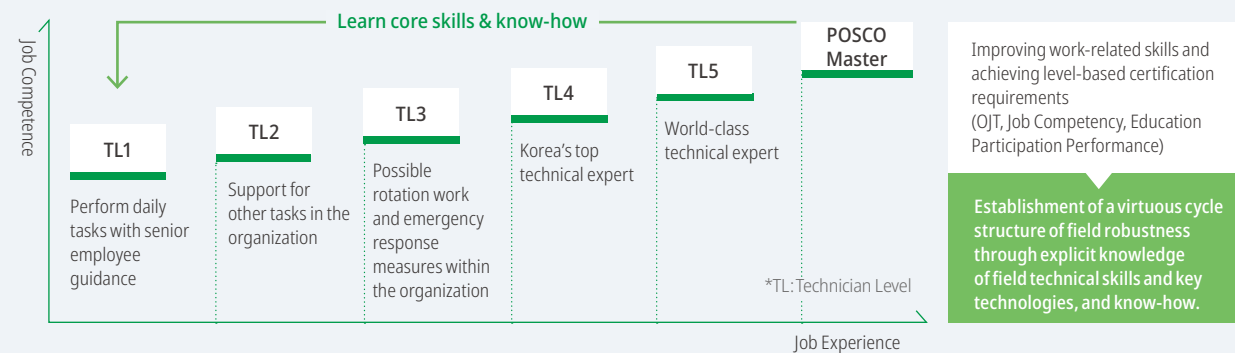
## Talent Development

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.



▲ Son Byoung-rak, the first POSCO Master to be appointed as a senior executive





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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).



▲ Winner of the 14th Steel Challenge hosted by the World Steel Association (WSA), Manager Yong-tae Kim (left) and CEO Jeong-woo Choi (right)

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.

Program	Output	Outcome
Technician-Level Training on Steelworks Core Technologies	Trainees in 2020: 1,370 trainees Percentage of training participants out of total employees: 8%	Early training and development of professionals in each field and boosting smart technology capabilities to prepare the company for the retirement of key long-serving employees.  * Making and sharing UCC (POSTube) for job know-how exchange
Leadership Training on Strengthening Management Leadership Skills (Leadership School and Special Lectures Based on Position)	Trainees in 2020: 4,543 trainees Percentage of training participants out of total employees: 26%	Contributing to a more positive corporate culture by establishing hierarchy-based action plans on leadership behavior changes and providing practical guides.

\* Leadership Training (5 courses): New Executive/Department Head-Group Head/Leader-Plant Leader Leadership Course, Foreman Leadership Course, Supervisor Leadership Academy

Category	Curriculum	Certification Requirements
LEVEL 1 (Beginner)	· New Collar Level 1_Workbench · New Collar Level 1_R · New Collar Level 1_Python	· After completing the Workbench, R, or Python course, pass the evaluation test * Choose from offline group training (3 days) or e-learning (24 hours)
LEVEL 2 (Semi-Expert)	· New Collar Level 2_Workbench · New Collar Level 2_R · New Collar Level 2_Python	· 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)
LEVEL 3 (Expert)	· AI Master's Program Study Abroad (Selected) · POSTECH Applied AI Expert Course (Selected)	· Completion of Level 3 curriculum and 1 Smart Task (Participation in Collaboration)
LEVEL 4 (Master)	· AI Doctoral Program Study Abroad (Selected)	· 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)
Common	Mandatory e-learning (digital literacy mindset) for all employees; before December 31, 2021	

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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.

Professional Staff/Engineer

Position	Mandatory Courses (12)												Nurturing Courses (13)													Elective Courses (9)									
Chief Executive Officer																																			
Head of Division																																			
Head of Works																																			
Head of Office/ Deputy Head of Works																																			
Vice President																																			
Head of Department																																			
Section Leader																																			
Senior Manager																																			
Manager																																			
Junior Manager																																			
Assistant Manager																																			

\*In addition to employee training, POSCO provides Youth Employment and Startup Support Programs (POSCO Youth Dream), Steel Bridge, small-and-medium enterprise innovation facilitator, Two-Day Camp with Dad, and Couples' Meditation Camp

Field Technical Staff

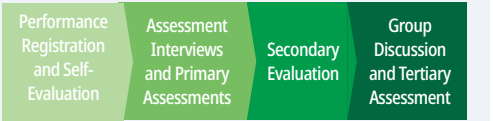
Category		Mandatory Courses (10)										Nurturing Courses (6)						Elective Courses (9)								
General Technical Manager																										
Senior Technical Manager																										
Technical Manager																										
Junior-mid Technical Manager																										
Junior Technical Manager																										
Assistant Technical Manager																										

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 assess 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.

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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.

TIP Cooperation Points Rewards System

When employees collaborate with each other, be it by sharing knowledge or helping each other out, Cooperation Points serve as a means to thank the other party.

However, we ask for a thorough description so that the person can be acknowledged accordingly.



**1. Cooperation in the steelworks**  
Equipment inspection, emergency response, etc.  
Cooperation between operation/maintenance, and front and rear processes



**2. Steelworks ↔ Corporate Head Office Cooperation**  
Production planning, supply, and demand schedule of raw materials, etc.  
Sharing information between the head office, steelworks, and foreign subsidiaries



**3. Knowledge/Know-how Sharing**  
Sharing knowledge/know-how through PosWiki, PosTube, etc.

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.



▲ Barrier-Free-certified POSCO Humans Pohang Office

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



\*91% participation rate, excluding executives/new employees, based on POSCO Corporate Head Office

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Young Board

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 development, marketing, and management support. They suggest improvements such as ways to create a safer work environment, modernize work methods, and enhance communication between employees 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 steelworks 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 steelworks in 2020 and the first female president of a group affiliate in 2021. All of this helped us win the Minister of Employment and Labor Award at the 5th Asian Women's Index Award in 2020.

Pregnancy/Childcare Support Programs (as of 2020)

Pregnancy  		Childbirth 		Childcare 	
Infertility Treatment Leave 10 days		Paternity Leave 10 days		Childcare Leave Up to 2 years	
Expanded Infertility Treatment Leave 10 days annually, split use possible (6-days paid leave)		Childbirth Incentives Granted First child: 2 million KRW; Second and each subsequent child: 5 million KRW		Childcare Leave Recognition of continuous service for each childcare leave period / Applicable for promotion	
Infertility Treatment Support Up to 1 million KRW each time, 10 times in total *Cover out-of-pocket bill		Maternity Leave Mandatory use of 90 days (120 days for multiple pregnancies) Paid leave of 60 days (75 days for multiple pregnancies)		Flexible Work Schedule Option to shorten by 2 to 4 hours per day, Full payment of basic wage	
Paid leave for prenatal examination and miscarriage/stillbirth leave (paid)		Paternity Leave Mandatory use of 10 days, split use possible (paid leave)		Scholarship Support for Children of Employees From kindergarten to university, up to 80 million KRW for 2 or fewer children; 120 million KRW for 3 children; 160 million KRW for 4 or more children	
Shortened Work Hours During Pregnancy Shorten by 2 hours per day, full salary				Expanded Operation of Childcare Centers Newly founded Sangsaeng (Coexistence) type centers in Pohang, Gwangyang, and Seoul	
Flexible Work Schedule Option to shorten by 2 to 4 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 offices 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 offices, and arrange for temporary job placement for overseas hires. The overseas-hired employees can then visit Korea for a period between six months and one year to experience life at POSCO. So far, about 100 employees from nine countries have participated in the GMP.



▲ Overseas Talent Receiving Education on Visiting Korea Program

Benefitting 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, had a very high approval rating of 93.44%.

\*Unionization rate: 40.8% (as of December 2020)

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 debris netting.



▲ CEO Jeong-woo Choi with members of the POSCO Labor Union and the Labor-Management Council at a marine clean-up event



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# Transparent Governance

## 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.

# ESGCOMMITTEE

# FEMALEOUTSIDE  
DIRECTOR

# CHECKSAND  
BALANCES

# INDEPENDENCEOF  
THE  
BOARDOFDIRECTORS

# LOW-CARBONPOLICY

# EXPERTISEOF  
THE  
BOARD  
OF  
DIRECTORS



### 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-son 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 hosted 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.

Director Composition	Names	Expertise	Work Experience	Tenure
Outside Directors (7 directors)	Seung-wha Chang (Chairperson of the Board)	Law and International Trade	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 Univ., LL.M./S.J.D., Harvard University	2020.3~2023.3 Date of the appointment: 2017.3
	Shin-bae Kim	Industry	Former Vice Chairperson at SK Group Former CEO of SK Telecom — B.S. in Industrial Engineering, Seoul National University; MBA, University of Pennsylvania	2019.3~2022.3 Date of the appointment: 2017.3
	Moon-ki Chung	Finance and accounting	Professor in Dept. of Business Administration, Sungkyunkwan University Former member of the Accounting Review Committee, Financial Supervisory Service — B.A. in International Trade and Ph.D. in Business Administration, Sungkyunkwan University	2019.3~2022.3 Date of the appointment: 2017.3
	Sung-jin Kim	Industry and policy	Former President of Hankyong National University Former Minister of Oceans and Fisheries — B.A. in Econ., Seoul National University; Ph.D. in Economics, Univ. of Kansas	2021.3~2024.3 Date of the appointment: 2018.3
	Heui-jae Pahk	Industry and policy	Professor in Dept. of Mechanical and Aerospace Engineering, Seoul National University Former Head of the Office of Strategic R&D Planning, Ministry of Trade, Industry, and Energy — B.S./M.S. in Mechanical Design Engineering, Seoul National University; Ph.D. in Mechanical Engineering, University of Manchester	2019.3~2022.3 Date of the appointment: 2019.3
	Young-sook Yoo	Environment	Former Principal Research Scientist at Korea Institute of Science and Technology (KIST) Former Minister of Environment — B.S. in Chemistry/M.S. in Biochemistry, Ewha Womans University Ph.D. in Biochemistry and Biophysics, Oregon State University	2021.3~2024.3 Date of the appointment: 2021.3
	Tae-kyun Kwon	Financial affairs	Former Senior Adviser of Yulchon LLC. Former Korean Ambassador to the UAE — B.A./M.A., Seoul National University, Ph. D. in International Finance, Chung-Ang University	2021.3~2024.3 Date of the appointment: 2021.3
Inside Directors (5 directors)	Jeong-woo Choi	Finance, policy, and industry	CEO of POSCO Former CEO of POSCO Chemtech Co., Ltd. — B.A. in Economics, Pusan National University	2021.3~2024.3 Date of the appointment: 2018.7
	Hag-dong Kim	Technology and industry	Head of Steel Business Unit, Representative Director & President of POSCO Former Head of Steel Production & 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	2021.3~2022.3 Date of the appointment: 2019.3
	Jung-son Chon	Finance, accounting, and policy	Head of Global & Infra Business Unit, Senior Executive Vice President Former Head of Corporate Strategy & Finance Center, Senior Executive Vice President — LL.B., Korea University	2021.3~2022.3 Date of the appointment: 2018.3
	Chang-hwa Chung	Industry and external cooperation	Head of New Growth Business Unit of POSCO Former Managing Director, Senior Executive Vice President of POSCO-China — B.A. in Economics, Wayne State University; Ph.D. Candidate in Economics, Northwestern University	2021.3~2022.3 Date of the appointment: 2021.3
	Tak Jeong	Marketing and trade & commerce	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	2021.3~2022.3 Date of the appointment: 2019.3

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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.

Board of Directors					
ESG Committee	Director Candidate Recommendation Committee	Evaluation and Compensation Committee	Finance Committee	Audit Committee	Executive Management Committee
<b>Chairperson Shin-bae Kim</b>	<b>Chairperson Moon-ki Chung</b>	<b>Chairperson Heui-jae Pahk</b>	<b>Chairperson Tae-kyun Kwon</b>	<b>Chairperson Sung-jin Kim</b>	<b>Chairperson Jeong-woo Choi</b>
Outside Director Seung-wha Chang Outside Director Young-sook Yoo Inside Director Hag-dong Kim	Outside Director Sung-jin Kim Outside Director Tae-kyun Kwon Inside Director Tak Jeong	Outside Director Moon-ki Chung Outside Director Sung-jin Kim Outside Director Young-sook Yoo	Outside Director Seung-wha Chang Outside Director Shin-bae Kim Inside Director Jung-son Chon	Outside Director Moon-ki Chung Outside Director Heui-jae Pahk	Inside Director Hag-dong Kim Inside Director Jung-son Chon Inside Director Chang-hwa Chung Inside Director Tak Jeong
· 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 and compensation of management · Evaluation of management performance	· 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

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

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 been including 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 them visit steelworks and new business sites.

Pool of Outside Director candidates (Unit: persons)

Category	As of Dec. 2019	As of Dec. 2020	In comparison to Dec. 2019	Female candidates as of Dec. 2020
No. of outside director candidates	142	283	+141	66
Finance	9	24	+15	5
Accounting	21	38	+17	9
Industry	48	67	+19	18
Academia	28	84	+56	16
Legal affairs	18	37	+19	13
Public services	18	33	+15	5



## 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.

> Links to major agenda items

Outside directors' participation in management and expertise enhancement activities	
<p>▶ 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</p>	<p>▶ Participation in strategy sessions to collect opinions on new business promotion methods such as for the rechargeable battery business April 2020</p>
<p>▶ Participation in outside directors' meeting to report and collect opinions for Board agendas June 2020 / Oct. 2020</p>	<p>▶ Participation in strategy session to collect opinions on POSCO's mid-term tactics and 2020 business plan Nov. 2020</p>

## 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 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.
- ※ 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:

- 1 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.
- 2 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.
- 3 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 a steelmaking business.
- 4 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.
- 5 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.
- 6 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.



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# 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.

- # CORPORATECITIZEN
- # ADVISORYBODY
- # OUTSIDEEXPERTS
- # CORPORATE CITIZENSHIP STRATEGYCONSULTATION
- # VIRTUOUSCYCLE
- # EXTERNALCOMMUNICATION



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.

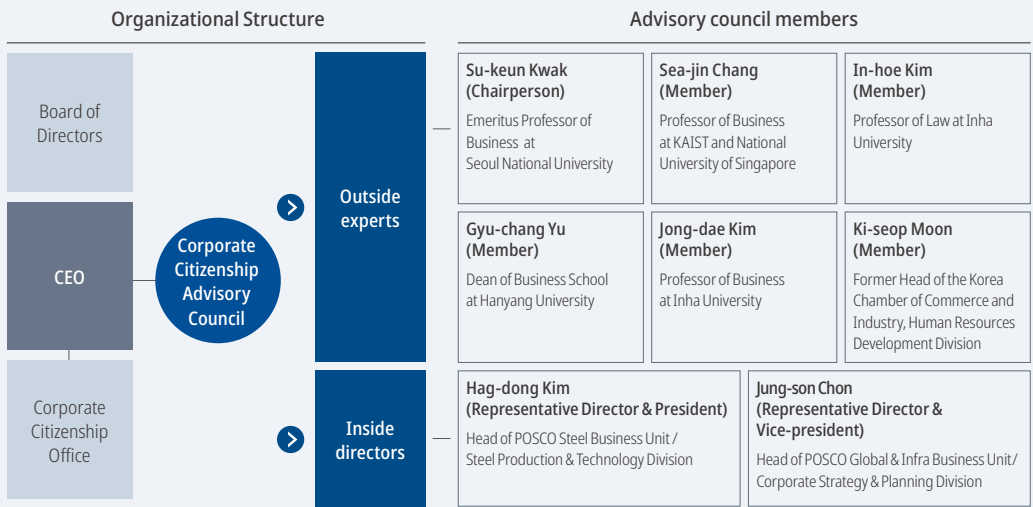
In 2020, the council emphasized that various support activities are needed to encourage employees to voluntarily practice corporate citizenship actions across the POSCO Group. As part of the effort, the council offered strategy consultations on enacting CCMS (Corporate Citizenship Management Standards). 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



\*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



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# A Foundation for Exemplary Business Practices

## Ethics Management

On June 2, 2003, POSCO enacted a Code of Ethics to enhance our ethics management to the global standard. Over the last 17 years, the company has faithfully abided by this code and expanded the provision of ethics training to all executives and employees. We believe this will help POSCO continue to have a collaborative relationship with our stakeholders going forward.

- # PREVENTION OF UNETHICAL BEHAVIOR
- # CORPORATE CULTURE WITH RESPECT FOR HUMAN RIGHTS
- # IMPLEMENTATION OF ETHICS MANAGEMENT
- # ZERO-TOLERANCE POLICY FOR UNETHICAL BEHAVIOR
- # STRENGTHENING OF ETHICS TRAINING
- # STRONGER ETHICS SUPPORT FOR PARTNER COMPANIES



### 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.

### Governance

The Corporate Audit Office, under the direct control of the CEO, is responsible for ethics management at POSCO. The Business Ethics Risk Management Bureau, 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.



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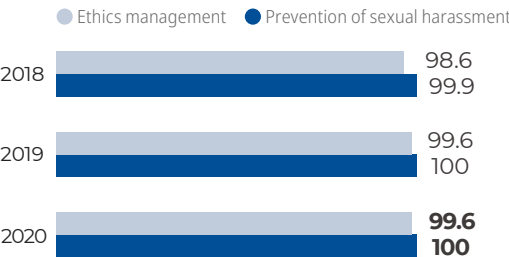
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Ethics Training

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 offices. In 2021, POSCO plans to expand its virtual training platform using a video conferencing system.

Ethics training completion rate (Unit: %)



Category	Main contents
Online	<ul style="list-style-type: none"><li>Mandatory e-learning courses (Ethics management/prevention of sexual harassment)</li><li>Company-wide posting of ethics management campaigns (Prevention of unethical behavior, bullying, abuse of power, and sexual harassment)</li><li>Ethical Management Letter (Prevention of unethical behavior, bullying, abuse of power, and sexual harassment)</li><li>E-mail training on workplace harassment (Unethical behavior, bullying in the workplace)</li></ul>
In-Person	<ul style="list-style-type: none"><li>Tailored ethics training offered to employees with consideration to job level and work duties<ul style="list-style-type: none"><li>In-person training for executives and department heads employed outside the company</li><li>Training for new steelworks supervisors on corporate culture and human rights</li><li>Basic training for new office and production workers</li><li>Department-level training</li><li>Training for Korean workers dispatched abroad prior to initiating job duties</li></ul></li><li>Training for ethics management and human rights protection for Korean workers dispatched abroad and local staff across overseas offices (materials in English and local languages supplied)</li></ul>

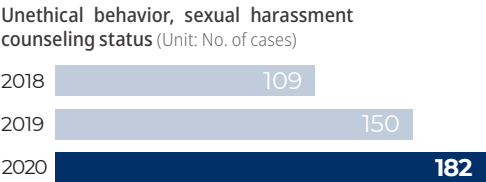
Ethics Assessment

① **Development of POSCO Ethics/Human Rights Assessment checklist**  
POSCO has developed and employs its own ethics/human rights assessment checklist.

② **Surveys**  
POSCO regularly carries out employee surveys on the ethical roles and responsibilities of executives, group heads, and management. 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.

③ **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.

Grievance handling process	
1 Receipt of grievance reports (counseling requests)	Counseling and reporting - E-mail: Unethical behavior, bullying (ethics@posco.com) sexual harassment (humanrights@posco.com) - Telephone: Unethical behavior, bullying, sexual harassment
2 Investigation into incident	Counseling and investigation into parties in complaint report - Subjects: victims, offenders, third parties (Confidentiality and non-retaliation agreements signed)
3 Verification and request for action	Verification of reported information, followed by disciplinary measures when deemed necessary
4 Notification of the actions taken	Acknowledgment given to the victim/ whistleblower following the request for HR department to take action
5 Follow-up procedure	Training and monitoring to prevent workplace bullying, abuse of power, and sexual harassment

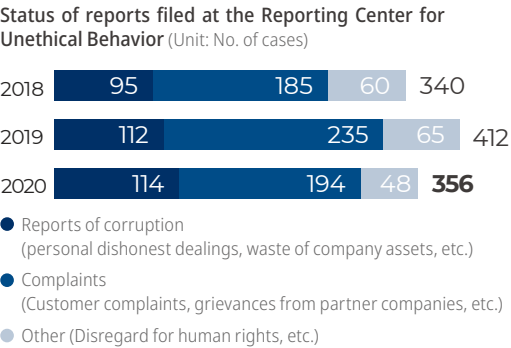


Regulation on the Prohibition of Political Donations in Accordance with Anti-Corruption Guidelines

✓ **Article 6: Prohibition and Restrictions on Convenience**  
**6.1 General Principles:** No POSCO employees shall give or receive any money or items of value to or from any stakeholders, including Korean and non-Korean public officials and transaction counterparties in connection with entertainment or convenience with improper intent to obtain business gain. Examples of items of value are as follows:  
• Marketable securities, real estate, meals, gifts, golf excursions  
• Expenses for transportation, accommodations, etc.  
• Usage rights or discounts for products or services  
• Political contributions  
• Other tangible or intangible economic gains such as the cancellation or transfer of debts, employment offers, or any granting of rights

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.



Category	Unit	2018	2019	2020
No. of unethical behavior cases reported	No. of Cases	340	412	356
No. of disciplinary measures taken	No. of Cases	109	105	103
No. of people who received disciplinary actions	No. of People	272 (100%)	301 (100%)	220 (100%)
Disciplinary actions	No. of People	103 (38%)	134 (45%)	83 (38%)
Warnings or less	No. of People	169 (62%)	167 (55%)	137 (62%)

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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 in leadership (Unit: points)

Category	2018	2019	2020
Executives	84	92	92
General Manager	91	94	94
Part Leader	-	91	92

\*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

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

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 prevents risks by regularly monitoring the status of human rights and ethics management in overseas offices. 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

(Units: No. of companies, %, No. of people)

Category		Survey target	Target Response Rate	No. of People Disciplined
Domestic subsidiaries	2020	15 companies	64%	9
	2019	19 companies	53%	6
	2018	26 companies	52%	9

Overseas offices' ethics assessment results

(Units: No. of companies, %, No. of people)

Category		Survey target	Target Response Rate	No. of People Disciplined
Overseas offices	2020	51 companies	68%	5
	2019	30 companies	59%	-
	2018	62 companies	52%	2

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 reinstate 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

- |                                    |  |
|------------------------------------|--|
| Establishment of the ethics system | <b>❶ Implementation of the code of ethics and ethics system</b><br><b>Enactment of the Code of Ethics:</b> Code of Ethics, guidelines for bullying/sexual harassment prevention, and conflicts of interest<br>Donation of fees earned for activities outside the company and the implementation of gift-return centers |
|                                    | <b>❷ Establishment of the Reporting Center of Unethical Behavior</b><br><b>Reporting system and procedures</b><br>Rewards for reporting unethical behavior, exemption guidelines, whistleblower anonymity protection rule  |
|                                    | <b>❸ Systematization of ethics training</b><br><b>Regular in-house training</b><br>Provision of customized training materials based on consultations   |
| Ethics counseling and support      | <b>❹ Consultation on ethics dilemmas</b><br><b>Online ethics counseling:</b> Receiving congratulatory or condolatory money from interested parties, complaints such as construction costs, accidents, and ethics system operation-related issues   |
|                                    | <b>❺ Sharing ethics campaign cases</b><br><b>Ethics campaign (12 cases):</b> Ethical leadership, healthy after-work culture, etc.<br><b>Ethics violation cases (4 cases):</b> Bribery, abuse of power, sexual harassment, manipulation of business-related information   |





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# A Foundation for Exemplary Business Practices

## Human Rights Management

POSCO fully respects and supports international standards on human rights. It complies with the Universal Declaration of Human Rights, UN Guiding Principles on Business and Human Rights, UN Global Compact, and OECD Guidelines for Multinational Enterprises. POSCO is doing its utmost to prevent any violation of human rights and is working hard to resolve the negative impact such violations may have on the business.

# HUMAN RIGHTS MANAGEMENT

# PROTECTION OF HUMAN RIGHTS

# HUMAN RIGHTS DUE DILIGENCE

# PREVENTION OF THE VIOLATION OF HUMAN RIGHTS

# DUE-DILIGENCE



### 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

POSCO enacted the POSCO Human Rights Protection Guidelines on April 1, 2014, which are based on the UN Guiding Principles on Business and Human Rights and POSCO's Code of Conduct. It was renamed POSCO Human Rights Protection Operational Guidelines on July 31, 2020.

“The POSCO Human Rights Protection Operational Guidelines reflect the company's determination to protect human rights. It lays out a due-diligence procedure, through which any factor or activity that can violate human rights is investigated, identified, and mitigated.”

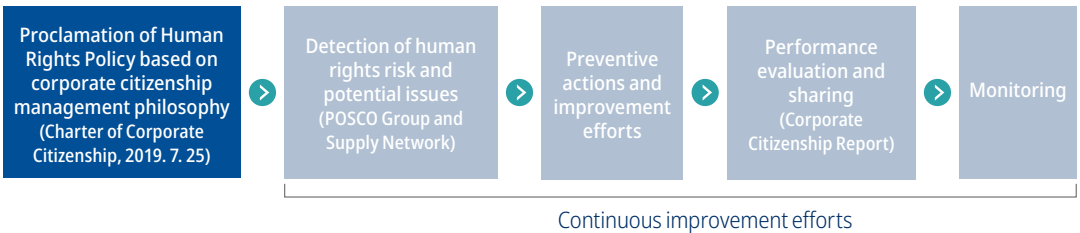
### Ethics Pledge and Training

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 offices, ethics management training is carried out by the companies' top management.



### 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.



### 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.



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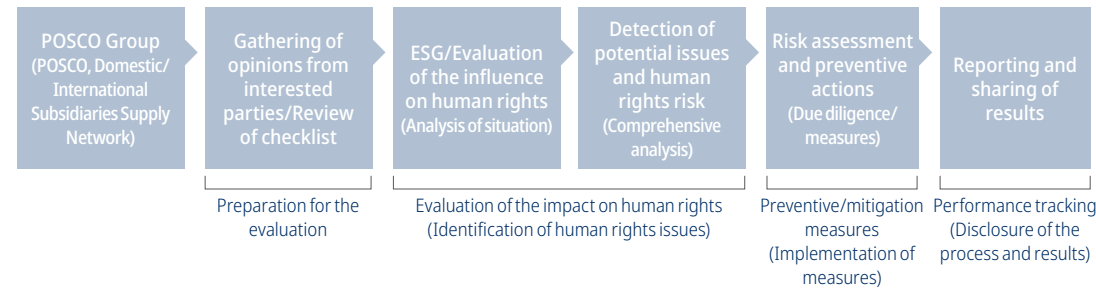
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## Human Rights Due Diligence Process

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 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 manner. POSCO has also set up a grievance reporting system on its homepage ([www.posco.com](http://www.posco.com)) and e-Sales site ([www.stee-n.com](http://www.stee-n.com)) to allow interested parties to make enquiries or report complaints. Through this system, reports of human rights violations, unethical behavior, abuse of power, and other unfair practices are more easily brought to our attention.

### Overseas subsidiary ethics/human rights checklist items

Checklist  
items (14)

- 1 Establishment of a human rights management system
- 2 Non-discrimination in employment
- 3 Guarantee of freedom of assembly and collective bargaining
- 4 Prohibition of forced labor
- 5 Prohibition of child labor
- 6 Protection of occupational safety
- 7 Protection of environmental rights
- 8 Responsible management of supply chain
- 9 Protection of human rights of locals
- 10 Protection of human rights of consumers
- 11 Prevention of bullying and sexual harassment
- 12 Compliance with ethical standards
- 13 Compliance with special provisions on ethics practices
- 14 Communication and consensus

## Management of Human Rights in Overseas Offices

POSCO has referred to a human rights checklist since 2016 to evaluate the level of human rights management in its overseas offices. 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 offices.

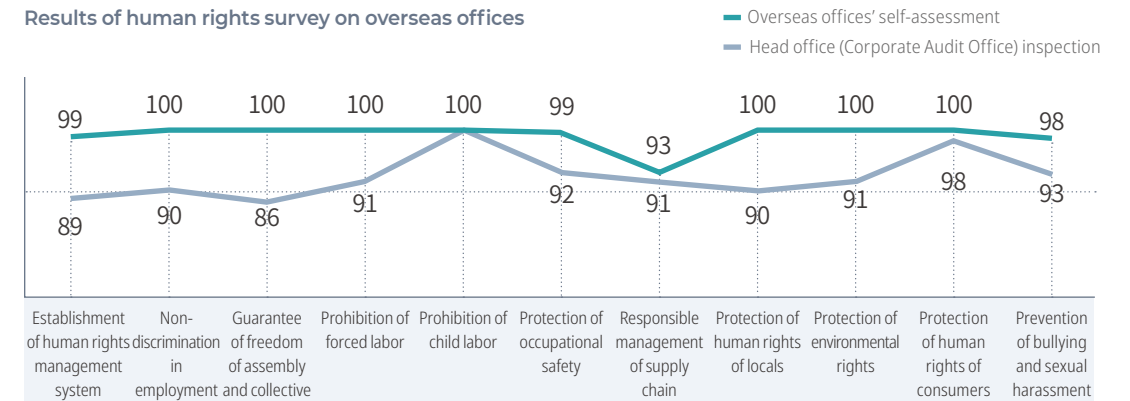
The Corporate Audit Office will be responsible for their training and coaching and continue to support them during their compliance work.

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

### Results of 2020 overseas offices' self-assessment on human rights

Self-assessment	Assessment items	Assessment results
Participation of <b>59</b> companies (2020.4.16~5.14)	Total of <b>14</b> items (11 Human rights management items, 3 Ethics practice items)	<b>99</b> points (99 points for human rights management, 99 points for ethics practice)

### Results of human rights survey on overseas offices



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# 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.

# COMPLIANCE  
PROGRAM (CP)

#FAIRTRADERISK  
MANAGEMENT

#FAIRTRADE  
TRAINING

#ESTABLISHMENTOFAN  
INTERNAL MONITORING SYSTEM

#FAIRTRADE  
COMPLIANCECOUNCIL

#PARTNERCOMPANYFAIRTRADE  
CPCERTIFICATION SYSTEM

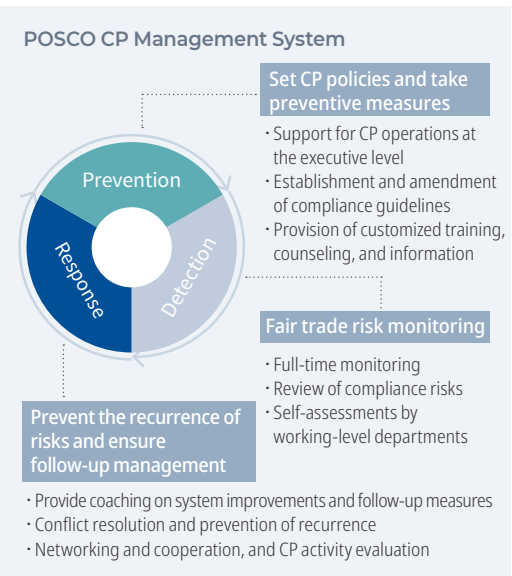


### Fair Trade Compliance Organization

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.



### 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

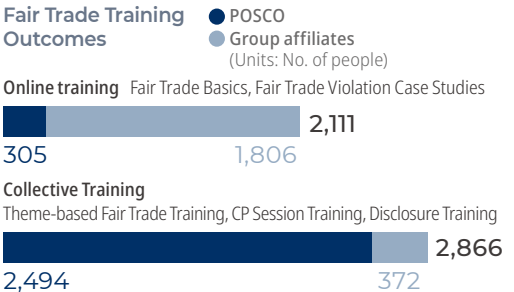
POSCO's Fair Trade CP is an internal compliance system founded and operated by POSCO in accordance with Fair Trade Compliance Norms. It provides necessary training and performs regular inspections with the goal of preventing any violation of fair-trade regulations. The program includes a Fair Trade Compliance 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 (8 Core Elements + Fair Trade Compliance Council)

- 1 Establishment and Implementation of CP Standards and Practices**
  - Enactment of Fair Trade Compliance Program Operational Guidelines (Aug. 2002)
  - Enactment of Conglomerate & Company Filing Operational Guidelines (March 2018)
  - Enactment of Fair Trade Compliance Guidelines for Overseas Subsidiaries (Dec. 2019)
- 2 CEO's Commitment to Compliance**
  - Announced commitment to fair trade practices through CEO's message
  - Signs an annual pledge to fair trade compliance
- 3 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)
- 4 Development and use of CP manuals**
  - Periodic distribution of the Fair Trade Compliance Manual by department (Marketing, Procurement, Conglomerates)

### Fair Trade Training

POSCO offers overseas offices and group affiliates tailored training and coaching on fair trade. There are also regular meetings with overseas offices' legal affairs councils. The councils' goal is to prevent risks by sharing information on notable current issues and establishing relevant compliance guidelines.



- 5 Implementation of continuous compliance training**
  - Provision of regular training on fair trade for working-level departments (procurement, sales)
  - Provision of hierarchy-based training on fair trade for new employees and supervisors
  - Operation of an e-learning programs (Fair Trade Basics, Fair Trade Violations Case Studies)
- 6 Establishment of an internal monitoring system**
  - Reporting of CP operational outcomes and plans to the Board (Finance and Related Party Transaction Committee)
  - Provision of fair-trade counseling to POSCO and Group affiliates
  - Provision of advice/counseling alongside status reviews of weaknesses
- 7 Disciplinary measures against offenders**
  - Enforcement of disciplinary actions according to the severity of the violation
  - Prompt enforcement of disciplinary actions against repeat offenders
- 8 Effectiveness evaluation and measures for improvement**
  - 2006-2012: Obtained AA rating from the Korea Fair Trade Commission in CP ratings (4 consecutive times)
  - 2012-2015, 2017, 2019: Obtained the top rating in the Win-Win Growth Index
- 9 Operation of the Fair Trade Compliance Council**
  - Operation of the Fair Trade Compliance Council composed of 24 heads of departments

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## 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  
SECURITYSYSTEM

# CORETECHNOLOGY  
PROTECTION

# CYBERSECURITY

# SECURITYRISKMANAGEMENT

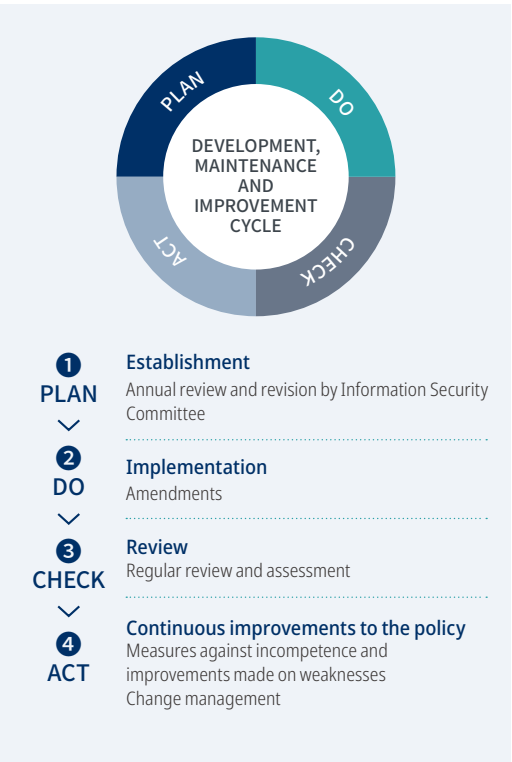


### Information Security Policy

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

### Protection of Core Technology

Of the nine national core technologies in the steel sector, POSCO possesses six. We manage core technologies in compliance with the national core technology protection measures standards and were acknowledged for our high security level with an "excellent" rating in the 2020 National Core Technology Security Management Survey. Core assets such as workforce, documents, facilities, and other critical technologies each have their own protective measures. In addition, the dedicated information security department maintains an effective information security management system by establishing a security policy, performing inspections, and following up with improvements.

### Security Breach Reporting Process

POSCO has designed a security breach and irregular activity reporting system for use by executives and employees. Through it, one can report issues such as evidence of hacking, possible information leaks, security vulnerabilities, and phishing e-mails. This information security reporting center operates independently. Appropriate rewards and compensation are given to anyone who contributes to information security protection, and appropriate measures are taken according to company regulations if a security breach is confirmed.

### Information security of overseas subsidiaries, group affiliates, and partner companies

POSCO offers security assessments, consultations, and training to overseas offices and group affiliates. Concentrated efforts are made for companies with inadequate security levels, while more general support programs, such as security consultation and training, are offered to more established partners. Consultation visits are also provided to 103 partner companies located in affiliated steelworks. As part of our corporate citizenship efforts, POSCO aims to support information security for customers and suppliers.

Information Security Support Tasks
<ul style="list-style-type: none"><li>Comprehensive security level and operational system diagnosis</li><li>Inspection of security system operation and penetration testing</li><li>Security management enhancement and security expert training</li></ul>



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Awareness and Training Programs for Executives and Employees

POSCO provides campaigns, training, and security inspections to enhance the security awareness of its executives and employees. The company encourages people to make information security a focal point in their daily work by utilizing various channels (e-mail, groupware pop-ups, company-wide posting, and online and in-person training) and rewarding outstanding employees. Each department has its own designated security officer to carry out training and inspections. Workshops for security officers are held at least twice a year, covering changes to the security policy, current issues, security threat trends, and updates on recent events. In 2020, POSCO also designed its own information security mascot to improve employees' security awareness in a more friendly manner.

E-mail	Newsletter on latest security trends, case studies, and security alerts
Groupware Pop-up	Campaigns to prevent information leaks and breaches, best security practices
Company-wide posting	Changes in security systems, precautions to be taken by employees
Training	e-learning and classroom training on security issues that require employee compliance
DM letter	Security practices and rules via informal, cartoon-influenced posters

Information security e-learning results for 2020

Category	Unit	2018	2019	2020
Enrollment	No. of people	17,334	17,548	17,982
Completion	No. of people	17,059	17,448	17,909
Completion rate	%	98.4	99.4	99.6

Information security mascots

POSCO's Information Security Mascots



Welsh corgi POCO



Welsh corgi POMI

Information security campaign using information security mascots



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 weaknesses and looks for improvements and signs of breaches.

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

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. 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.

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

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# 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.

- # TAXOBLIGATION
- # PREVENTION OF TAX RISKS
- # TRANSPARENT TAXPAYMENT
- # CORPORATE TAX
- # ECONOMIC CONTRIBUTION
- # TAX MANAGEMENT



### Tax Management Policy

- POSCO complies with the tax regulations of each country in which we engage 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" 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.

### Tax 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				Corporate tax data by region			
(Unit: one hundred million KRW)				(Unit: one hundred million KRW)			
Financial Reporting	FY 2019	FY 2020	Calculated Average	Category	Sales	Operating profit	Corporate income tax expenses
Earnings before tax	30,533	20,250		Domestic	620,111	23,041	2,569
Reported taxes	10,706	2,369	Corporate income tax expenses	China	98,229	2,181	892
Reported tax rate (in %)	35.1%	11.7%	25.7%	South America	45,085	1,810	179
Cash taxes paid	9,133	6,929	Current tax	Southeast Asia	44,756	1,298	91
Cash tax rate (in %)	29.9%	34.2%	31.6%	Japan	24,443	552	52
				Indonesia	22,538	935	54
				India	19,064	384	54
				Europe	12,403	264	25
				Africa	3,279	443	16
				North America	1,621	25	419
				Others	137,320	9,290	9,577
				Total	1,028,849	40,223	13,928
				*Based on consolidated financial statements			
Reason	FY 2019	FY 2020					
Reported taxes – cash taxes paid	1,573	(4,560)					
Temporary differences	650	(4,709)					
Losses carried forward	238	194					
Unrealized gains and losses	685	(45)					

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## Issuance of ESG Bonds

### Sustainable Financing

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.



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	SDG 11	Amount Used (EUR)	Distribution rate (%)
Electric vehicle battery		367mil.	73.4%
Eligible Social Categories	SDG 10	Amount Used (EUR)	Distribution rate (%)
Support for the underprivileged		21mil.	4.2%
Total Amount Allocated		388mil.	77.6%
Leftover balance		112mil.	22.4%

\* Exchange rate (KRW/EUR): 1,338.24 (As of the end of Dec. 2020, Basic Exchange Rate, Seoul Money Brokerage)

#### Sustainable Financing

January 2020  
EUR Sustainability Bond



Currency/size



EUR  
500,000,000

Rating (M/S)

Baa1/BBB+

ISIN	· XS2103230152 (Reg S) · XS2103230236 (144A)
Maturity date	· January 17, 2024 (4years)
Type	· Senior Unsecured · 144A/Reg S
Spread	· MS+72bps
Coupon	· 0.500%

#### Impact

Electric Vehicle Battery		SDG 11	
Project	Project CAPEX (EUR)		
[POSCO] PosLX Demo Plant Construction	52mil.		
[POSCO Chemical] Cathode material production line expansion (Gwangyang 3, 4 phases new expansion)	315mil.		
Total Investment	367mil.		
Support to Underprivileged		SDG 10	
Project	Support from POSCO (EUR)	Employment of people with disabilities	Employment of People with Disabilities (%)
POSCO HUMANS	21mil.	313people	48.1%



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Green Project

Related to POSCO Group's secondary battery material business

491 billion KRW (367 million EUR)



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.



Social Project

Funds distributed to workplaces with disabled employees

28.1 billion KRW (21 million EUR)



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.

2020  
Investment in brine-and-ore lithium  
processing factory construction and  
cathode R&D facility

70 billion KRW (52 million EUR)

Jan. 2021  
Investment in the recapitalization of  
POSCO Chemical

421 billion KRW (315 million EUR)

POSCO HUMANS 2019  
Selected as Top Employer for Hiring  
Disabled Talent

Hired 313 people with disabilities

Employment rate of  
disabled people 48.1%

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# GRI

GRI Standard	No.	Title	ISO 26000	Pages and Notes
GRI 101: Foundation 2016				
General Disclosures				
Organizational profile				
GRI 102	102-1	Name of the organization	6.3.10, 6.4.1, 6.4.2, 6.4.3, 6.4.4, 6.4.5, 6.8.5, 7.8	5
	102-2	Activities, brands, products, and services		5
	102-3	Location of headquarters		5
	102-4	Location of operations		6
	102-5	Ownership and legal form		5
	102-6	Markets served		6
	102-7	Scale of the organization		5
	102-8	Information on employees and other workers		Factbook 5
	102-9	Supply chain		55~60
	102-10	Significant changes to the organization and its supply chain		Business Report pp. 9~19
	102-11	Precautionary Principle or approach		26~27
	102-12	External initiatives		About this Report, 59, ESG Factbook 8~12
	102-13	Membership of associations		ESG Factbook 7
Strategy				
GRI 102	102-14	Statement from senior decision-maker	4.7, 6.2, 7.4.2	POSCO Charter of Corporate Citizenship, 7~10
	102-15	Key impacts, risks, and opportunities	6.2	26~27
Ethics and integrity				
GRI 102	102-16	Values, principles, standards, and norms of behavior	7.7.5, 4.4, 6.6.3	POSCO Charter of Corporate Citizenship
	102-17	Mechanisms for advice and concerns about ethics		82~84
Governance				
GRI 102	102-18	Governance structure	6.2, 7.4.3	78~80
	102-19	Delegating authority		81
	102-20	Executive-level responsibility for economic, environmental, and social topics		81
	102-21	Consulting stakeholders on economic, environmental, and social topics	6.2	31~32, 79~81
	102-22	Composition of the highest governance body and its committees	6.2	78~79
	102-23	Chair of the highest governance body	6.2	78
	102-24	Nominating and selecting the highest governance body	6.2	79~80
	102-25	Conflicts of interest	6.2	79~80
	102-26	Role of highest governance body in setting purpose, values, and strategy		79~80



GRI Standard	No.	Title	ISO 26000	Pages and Notes
GRI 102	102-27	Collective knowledge of highest governance body		80
	102-28	Evaluating the highest governance body's performance	6.2	80
	102-29	Identifying and managing economic, environmental, and social impacts	6.2	79
	102-30	Effectiveness of risk management processes		26~27
	102-31	Review of economic, environmental, and social topics	6.2	79
	102-32	Highest governance body's role in sustainability reporting		79
	102-33	Communicating critical concerns	6.2	79
	102-34	Nature and total number of critical concerns		28~30
	102-35	Remuneration policies	6.2	80
	102-36	Process for determining remuneration		Business Report pp. 443
	102-37	Stakeholders' involvement in remuneration	6.2	Business Report pp. 443
	102-38	Annual total compensation ratio		ESG Factbook 7
	102-39	Percentage increase in annual total compensation ratio		
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				
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		29
	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



GRI Standard	No.	Title	ISO 26000	Pages and Notes
GRI 200 Economic Series				
Economic Performance				
GRI 103: Management Approach	103-1	Explanation of the material topic and its boundary	6.2.3, 6.3.7, 6.3.10, 6.4.3, 6.4.3, 6.5.4, 6.5.5, 6.4.6	29
	103-2	The management approach and its components		9~10, 12~13, 19, 30, 50~51
	103-3	Evaluation of the management approach		30
GRI 201	201-1	Direct economic value generated and distributed	6.8.1, 6.8.2, 6.8.3, 6.8.7, 6.8.9	12~13
	201-2	Financial implications and other risks and opportunities due to climate change	6.5.5	38, 50~53
	201-3	Defined benefit plan obligations and other retirement plans		ESG Factbook 5
	201-4	Financial assistance received from government		Business Report pp. 152
Market Presence				
GRI 202	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	6.4.4, 6.8	
	202-2	Proportion of senior management hired from the local community		
Indirect Economic Impacts				
GRI 203	203-1	Infrastructure investments and services supported	6.3.9, 6.8.1-6.8.2, 6.8.7, 6.8.9	61~66
	203-2	Significant indirect economic impacts	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	61~66
Procurement Practices				
GRI 204	204-1	Proportion of spending on local suppliers		
Anti-corruption				
GRI 205	205-1	Operations assessed for risks related to corruption	6.6.1-6.6.3, 6.6.6	84
	205-2	Communication and training about anti-corruption policies and procedures	6.6.1-6.6.3, 6.6.6	56~57, 84
	205-3	Confirmed incidents of corruption and actions taken	6.6.1-6.6.3	None
Anti-competitive Behavior				
GRI 206	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	6.6.1-6.6.2, 6.6.5, 6.6.7	87
Tax - Management Approach				
GRI 207	207-1	Approach to tax		90~91
	207-2	Tax governance, control, and risk management		90~91
	207-3	Stakeholder engagement and management of concerns related to tax		90~91
	207-4	Country-by-country reporting		90~91



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GRI Standard	No.	Title	ISO 26000	Pages and Notes
GRI 300 Environmental Series				
Materials				
GRI 103: Management Approach	103-1	Explanation of the material topic and its boundary		29
	103-2	The management approach and its components		9~10, 19, 30, 43
	103-3	Evaluation of the management approach		30
GRI 301	301-1	Materials used by weight or volume	6.5.4	39
	301-2	Recycled input materials used	6.5.4	44~45
	301-3	Reclaimed products and their packaging materials		N/A
Energy				
GRI 103:	103-1	Explanation of the material topic and its boundary		29
	103-2	The management approach and its components		9~10, 19, 30, 49
	103-3	Evaluation of the management approach		30
GRI 302 Management Approach	302-1	Energy consumption within the organization	6.5.4	11, 39, ESG Factbook 3, 9, 11
	302-2	Energy consumption outside of the organization	6.5.4	39
	302-3	Energy intensity	6.5.4	ESG Factbook 3
	302-4	Reduction of energy consumption	6.5.4-5	39~41
	302-5	Reductions in energy requirements of products and services	6.5.4-5	39~41
Water and Effluents				
GRI 303	303-1	Interactions with water as a shared resource	6.5.4	45, ESG Factbook 1
	303-2	Management of water discharge-related impacts	6.5.4	ESG Factbook 9, 11
	303-3	Water withdrawal	6.5.4	45, ESG Factbook 1
	303-4	Water discharge		ESG Factbook 1
	303-5	Water consumption		ESG Factbook 1
Biodiversity				
GRI 304	304-1	Operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas	6.5.6	23, 47
	304-2	Significant impacts of activities, products, and services on biodiversity	6.5.6	23, 47
	304-3	Habitats protected or restored	6.5.6	23, 47
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations		
Emissions				
GRI 103: Management Approach	103-1	Explanation of the material topic and its boundary		29
	103-2	The management approach and its components		9~10, 19, 30, 36~38, 43
	103-3	Evaluation of the management approach		30
GRI 305	305-1	Direct (Scope 1) GHG emissions	6.5.5	37
	305-2	Energy indirect (Scope 2) GHG emissions	6.5.5	37
	305-3	Other indirect (Scope 3) GHG emissions	6.5.5	ESG Factbook 3

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GRI Standard	No.	Title	ISO 26000	Pages and Notes
GRI 305	305-4	GHG emissions intensity	6.5.5	ESG Factbook 3
	305-5	Reduction of GHG emissions	6.5.5	36~42
	305-6	Emissions of ozone-depleting substances (ODS)		
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	6.5.3	11, 44, ESG Factbook 1, 9, 11
Effluents and Waste				
GRI 306	306-1	Water discharge by quality and destination	6.5.3-4	ESG Factbook 1
	306-2	Waste by type and disposal method	6.5.3	ESG Factbook 2, 10, 12
	306-3	Significant spills	6.5.3	No leaks occurred
	306-4	Transport of hazardous waste	6.5.3	45, ESG Factbook 2
	306-5	Water bodies affected by water discharges and/or runoff	6.5.3	
Environmental Compliance				
GRI 307	307-1	Non-compliance with environmental laws and regulations	4.6	ESG Factbook 2
Supplier Environmental Assessment				
GRI 308	308-1	New suppliers that were screened using environmental criteria	6.3.5, 6.6.6, 7.3.1	56
	308-2	Negative environmental impacts in the supply chain and actions taken	6.3.5, 6.6.6, 7.3.1	57
GRI 400 Social Series				
Employment				
GRI 401	401-1	New employee hires and employee turnover	6.4.3	ESG Factbook 5
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	6.4.4,6.8.7	77
	401-3	Parental leave	6.4.4	ESG Factbook 6
Labor/Management Relations				
GRI 402	402-1	Minimum notice periods regarding operational changes	6.4.3, 6.4.5	
Management Approach - Occupational Health and Safety				
GRI 103: Management Approach	103-1	Explanation of the material topic and its boundary		29
	103-2	The management approach and its components		9~10, 19, 30, 68~70
	103-3	Evaluation of the management approach		30
GRI 403	403-1	Occupational health and safety management system	6.4.6	70
	403-2	Hazard identification, risk assessment, and incident investigation	6.4.6, 6.8.8	68~69
	403-3	Occupational health services	6.4.6	68~71
	403-4	Worker participation, consultation, and communication on occupational health and safety	6.4.6, 6.8.8	69
	403-5	Worker training on occupational health and safety	6.4.6	70
	403-6	Promotion of worker health	6.4.6	71
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	6.4.6	56~57
	403-8	Workers covered by an occupational health and safety management system	6.4.6	68~70
	403-9	Work-related injuries	6.4.6	ESG Factbook 4, 10, 12
	403-10	Work-related ill health	6.4.6	71

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GRI Standard	No.	Title	ISO 26000	Pages and Notes
Training and Education				
GRI 103: Management Approach	103-1	Explanation of the material topic and its boundary		29
	103-2	The management approach and its components		9~10, 19, 30, 72
	103-3	Evaluation of the management approach		30
GRI 404	404-1	Average hours of training per year per employee	6.2.3, 6.3.7, 6.3.10, 6.4.3, 6.4.7	ESG Factbook 5
	404-2	Programs for upgrading employee skills and transition assistance programs	6.3.6, 6.3.7, 6.3.10, 6.4.3, 6.4.4, 6.4.7, 6.8.5	72~74
	404-3	Percentage of employees receiving regular performance and career development reviews	6.4, 6.4.6	74
Diversity and Equal Opportunity				
GRI 405	405-1	Diversity of governance bodies and employees	6.2.3, 6.3.7, 6.3.10, 6.4.3	79, ESG Factbook 7
	405-2	Ratio of basic salary and remuneration of women to men	6.3.7, 6.3.10, 6.4.3, 6.4.4	Business Report pp. 441~442
Non-discrimination				
GRI 406	406-1	Incidents of discrimination and corrective actions taken	6.3.6, 6.3.7, 6.3.10, 6.4.3	84, 86
Freedom of Association and Collective Bargaining				
GRI 407	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	6.3.3, 6.3.4, 6.3.5, 6.3.8, 6.3.10, 6.4.5, 6.6.6	76
Child Labor				
GRI 408	408-1	Operations and suppliers at significant risk for incidents of child labor	6.3.3, 6.3.4, 6.3.5, 6.3.7, 6.3.10, 6.6.6, 6.8.4	57, 59, 86
Forced or Compulsory Labor				
GRI 409	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	6.3.3, 6.3.4, 6.3.5, 6.3.7, 6.3.10, 6.6.6, 6.8.4	86
Security Practices				
GRI 410	410-1	Security personnel trained in human rights policies or procedures		
Rights of Indigenous Peoples				
GRI 411	411-1	Incidents of violations involving rights of indigenous peoples		None
Human Rights Assessment				
GRI 412	412-1	Operations that have been subject to human rights reviews or impact assessments	6.3.3-6.3.6	83
	412-2	Employee training on human rights policies or procedures	6.3.3-6.3.6	83~85
	412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening		
Local Communities				
GRI 413	413-1	Operations with local community engagement, impact assessments, and development programs	6.3.9, 6.5.1-6.5.3, 6.8	61~62
	413-2	Operations with significant actual and potential negative impacts on local communities		60, ESG Factbook 10, 12

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GRI Standard	No.	Title	ISO 26000	Pages and Notes
Supplier Social Assessment				
GRI 414	414-1	New suppliers that were screened using social criteria	6.3.5, 6.6.1-6.6.2, 6.6.6, 6.8.1-6.8.2, 7.3.1	56~57
	414-2	Negative social impacts in the supply chain and actions taken	6.3.5, 6.6.1-6.6.2, 6.6.6, 6.8.1-6.8.2, 7.3.1	57
Public Policy				
GRI 415	415-1	Political contributions	6.6.1-6.6.2, 6.6.4	No political donations
Customer Health and Safety				
GRI 416	416-1	Assessment of the health and safety impacts of product and service categories		
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	6.7.4	None <sup>1)</sup>
Marketing and Labeling				
GRI 417	417-1	Requirements for product and service information and labeling		N/A
	417-2	Incidents of non-compliance concerning product and service information and labeling	4.6, 6.7.1-6.7.5, 6.7.9	None <sup>1)</sup>
	417-3	Incidents of non-compliance concerning marketing communications	4.6, 6.7.1-6.7.3	None <sup>1)</sup>
Customer Privacy				
GRI 418	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	6.7.1-6.7.2, 6.7.7	No complaint cases
Socioeconomic Compliance				
GRI 419	419-1	Non-compliance with laws and regulations in the social and economic areas	4.6, 6.7.1-6.7.2, 6.7.6	Business Report pp. 498~500

1) Limited to Business Report pp. 498~500



# POSCO CORPORATE CITIZENSHIP REPORT 2020

Economic, Environmental Social, and Governance Performance

# 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.

 With POSCO

 posco



## Environmental

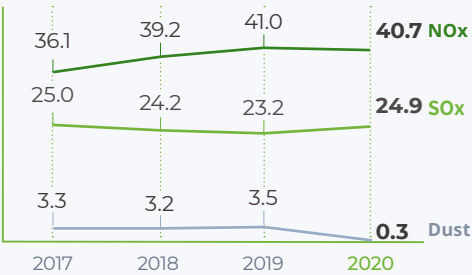
Indicator	Unit	2017	2018	2019	2020
Basic Information					
Crude steel production	thousand tons	37,207	37,735	38,007	35,935
Air <sup>1)</sup>					
Absolute dust emissions	thousand tons	3.3	3.2	3.5	0.3
Dust intensity	kg/t-crude steel	0.09	0.09	0.09	0.01
Absolute NOx emissions	thousand tons	36.1	39.2	41.0	40.7
NOx intensity	kg/t-crude steel	0.97	1.04	1.08	1.13
Absolute SOx emissions	thousand tons	25.0	24.2	23.2	24.9
SOx intensity	kg/t-crude steel	0.67	0.64	0.61	0.69
Water					
Water withdrawal	million m <sup>3</sup>	140.0	139.5	142.0	136.4
Treated urban sewage water	million m <sup>3</sup>	29.2	28.6	28.8	28.6
Desalinated water	million m <sup>3</sup>	8.1	7.2	7.3	7.7
Surface water (rivers, dams)	million m <sup>3</sup>	96.2	97.0	100.0	93.3
Underground water	million m <sup>3</sup>	6.6	6.6	5.9	6.7
Net water use	m <sup>3</sup> /t-crude steel	3.70	3.70	3.74	3.80
Total water consumption <sup>2)</sup>	million m <sup>3</sup>	72.7	68.8	68.7	64.4
Total recycled water	million m <sup>3</sup>	46.9	48.0	50.9	50.8
Total rainwater and wastewater discharge <sup>3)</sup>	million m <sup>3</sup>	67.4	70.6	73.3	71.9
Percentage of water withdrawn from regions with “High” or “Extremely High” baseline water stress	million m <sup>3</sup>	None	None	None	None
Percentage of water consumed in regions with “High” or “Extremely High” baseline water stress	million m <sup>3</sup>	None	None	None	None

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

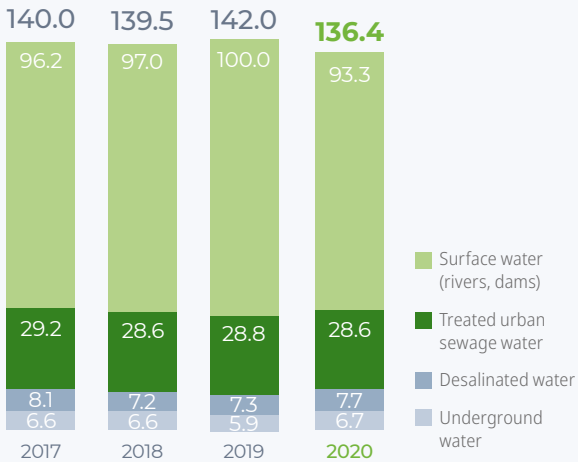
2) Total water consumption equals total water withdrawal minus wastewater discharge per GRI Standards.

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

Air Emissions (Unit: thousand tons)



Water Withdrawal (Unit: million m<sup>3</sup>)





## Environmental

Indicator	Unit	2017	2018	2019	2020
Waste					
Total waste generated <sup>1)</sup>	tons	10,587,757	11,295,560	16,713,940	21,974,669
Total waste recycled	tons	10,201,434	10,892,423	16,332,607	21,662,981
Total waste disposed (incineration and landfill)	tons	386,323	403,137	381,333	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						
Recycled blast furnace slag		tons	12,039,635	12,239,298	12,450,191	11,998,028
Granulated slag	Cement industry use	tons	11,151,012	10,728,377	10,625,781	10,810,459
	Fertilizer, and others	tons	257,019	259,484	260,406	277,349
Palletized slag		tons	631,603	1,251,437	1,564,005	910,220
CO <sub>2</sub> avoided from slag re-use in the cement industry <sup>1)</sup>		thousand tCO <sub>2</sub> e	8,596	8,392	8,311	8,486
Reused production residue and by-products		%	98.4	98.3	98.3	98.8

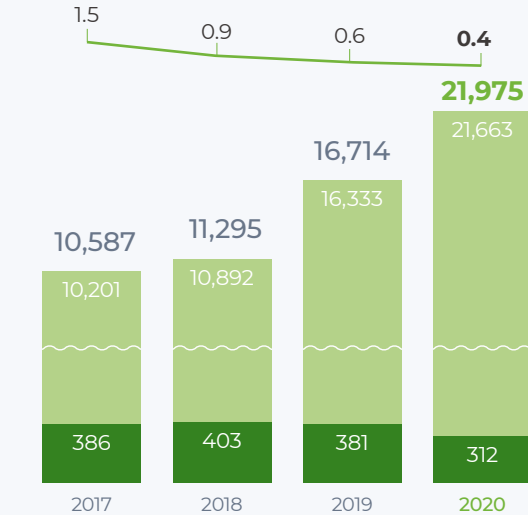
1) By applying the theoretical ratio of which CaO, the main component of cement clinker, is converted to CO<sub>2</sub>, the CO<sub>2</sub> reduction result for every 1 ton of clinker being replaced by 1 ton of granulated slag has been calculated as 0.785 t-CO<sub>2</sub>/t-Clinker.

Management					
Percentage of ISO 50001 certified (Energy Management System)	%	100	100	100	100
No. of certified worksites	worksites	2	2	2	2
No. of certification-target worksites	worksites	2	2	2	2
Percentage of ISO 14001 certified (Environmental Management System)	%	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 environmental violations of legal obligations <sup>1)</sup>	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 Business Report

### Total Waste and Percentage of Hazardous Waste

(Unit: thousand tons, %)



■ Recycled waste ■ Disposed waste (incineration and landfill) — Percentage of designated waste



▲ ISO 50001 Certification  
(Pohang Works)



▲ ISO 50001 Certification  
(Gwangyang Works)



▲ ISO 14001 Certification  
(General)



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ESG DATA

SASB  
Written Verification  
Opinion

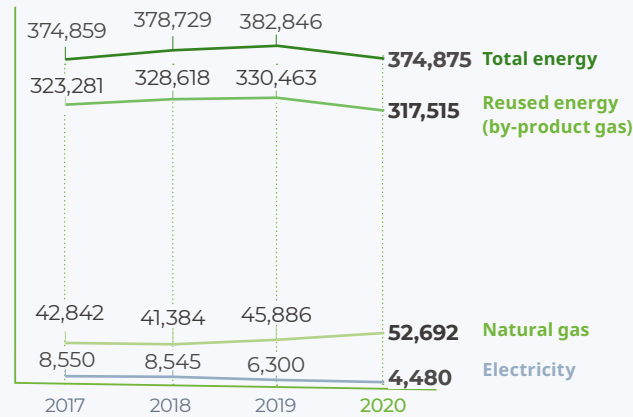
Environmental

Indicator		Unit	2017	2018	2019	2020
Energy						
Energy consumption		GJ	374,858,713	378,728,730	382,845,859	374,874,610
Direct energy	Natural gas	GJ	42,841,873	41,384,234	45,885,941	52,692,024
	Diesel	GJ	174,541	170,094	183,292	179,288
	Gasoline	GJ	10,942	10,866	12,732	8,347
	Vehicle LPG	GJ	174	167	132	62
Indirect energy (electricity)	Electricity	GJ	8,550,171	8,545,433	6,300,216	4,480,025
Renewable energy		GJ	0	119	219	318
Retrieved and reused on-site energy	By-product gas	GJ	323,281,012	328,617,817	330,463,327	317,514,546
Energy intensity		GJ/ t-crude steel	10.1	10.0	10.1	10.4
Percentage of by-product gas in consumed fuel		%	86.2	86.8	86.3	84.7
Percentage of natural gas in consumed fuel		%	11.4	10.9	12.0	14.1
Percentage of electricity in consumed fuel		%	2.3	2.3	1.6	1.2
Renewable energy sales		GJ	17,834	16,135	16,012	16,287

GHG						
GHG emissions (Scope 1 & 2) <sup>1)</sup>		tCO <sub>2</sub> e	76,741,041	78,498,443	80,263,890	75,649,882 <sup>3)</sup>
Scope 1 (direct emissions)		tCO <sub>2</sub> e	75,633,360	77,391,479	79,447,924	75,069,656
Scope 2 (indirect emissions)		tCO <sub>2</sub> e	1,107,681	1,106,964	815,966	580,226
GHG emissions (Scope 3)		tCO <sub>2</sub> e	18,044,000	18,903,000	13,139,000	11,951,000
GHG intensity (per output) <sup>2)</sup>		tCO <sub>2</sub> e/t-crude steel	2.06	2.08	2.11	2.11

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

Total Energy Consumption (Unit: TJ)



GHG Emissions (Scope 3) (Unit: thousand tCO<sub>2</sub>)

Other CO <sub>2</sub> Emissions	2017	2018	2019	2020
Transportation of purchased raw materials	978	986	936	903
Employee commutes	7	7	5	6
Employees' domestic/ overseas business travels	0.7	0.6	0.8	0.4
Purchased products and services	2,638	2,997	3,287	3,332
Upstream leased assets	2,081	2,180	2,184	2,014
Investments	12,339	12,733	6,725	5,696
Total (excluding downstream leased assets)	18,044	18,904	13,138	11,951

1) Calculated with reference to WBCSD/WRI Greenhouse Gas Protocol  
2) The total weight of purchased raw materials amounted to 89.71 million tons (concerning coal, iron ore, and limestone, which make up the majority)  
3) While the total number of employees was 17,937 at the end of 2020, the data was calculated for Scope 1 & 2 only, which concerns only 14,169 employees at Pohang Works and Gwangyang Works  
4) GHG emissions were calculated with a focus on suppliers of primary raw materials out of all purchased products and services  
5) GHG emissions were calculated from the limestone calcination plant leased to POSCO CHEMICAL out of upstream leased assets  
6) Calculated based on POSCO-invested companies subject to the Emissions Trading System in consideration of their Scope 1 & 2 emissions and proportions of equity ownership





Social

Indicator	Unit	2017	2018	2019	2020
Safety					
Injured employees (total) <sup>1)</sup>	persons	8	18	21	21
Injured employees (direct employees)	persons	4	6 <sup>3)</sup>	13	12
Injured employees (contractors)	persons	4	12	8 <sup>4)</sup>	9
Injury rate (total)	%	0.03	0.06	0.07	0.07
Injury rate (direct employees)	%	0.02	0.04	0.07	0.07
Injury rate (contractors)	%	0.03	0.09	0.06	0.06
Fatalities (total) <sup>2)</sup>	persons	0	5	2	4
Fatalities (direct employees)	persons	0	0	2	2
Fatalities (contractors)	persons	0	5	0	2
Fatality rate (total)	%	0.00	0.02	0.01	0.01
Fatalities (direct employees)	%	0.00	0.03	0.01	0.02
Fatalities (contractors)	%	0.00	0.04	0.00	0.01
Percentage of ISO 45001 certified (health and safety management system)	%	100	100	100	100
No. of certified worksites	worksites	2	2	2	2
No. of certification target worksites	worksites	2	2	2	2

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:

2017	2018	2019	2020
8 persons	18 persons	28 persons	26 persons

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:

2017	2018	2019	2020
0 persons	5 persons	3 persons	5 persons

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.

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

	2017	2018	2019	2020
Lost-time injury frequency rate (LTIFR) (total, per million hours)	0.11	0.20	0.26	0.26
Lost-time injury frequency rate (direct employees)	0.11	0.16	0.31	0.36
Lost-time injury frequency rate (contractors)	0.11	0.24	0.21	0.18

	2017	2018	2019	2020
Total recordable injury frequency rate (TRIFR) (total, per million hours)	0.15	0.24	0.73	0.36
Total recordable injury frequency rate (direct employees)	0.20	0.24	0.92	0.54
Total recordable injury frequency rate (contractors)	0.11	0.24	0.52	0.20

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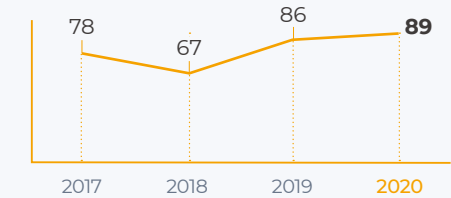
Social

Indicator	Unit	2017	2018	2019	2020
HR					
No. of total executives and employees	persons	17,122	17,221	17,574	17,937
No. of executives	persons	67	71	71	74
No. of employees	persons	17,055	17,150	17,503	17,863
Permanent positions	persons	16,885	16,899	17,299	17,665
Temporary positions	persons	170	251	204	198
Continuous years of service	years	19.8	19.9	19.6	19.1
No. of new hires	persons	768	886	1,026	701
Percentage of open positions filled by internal candidates	%	99.5	99.8	98.3	99.3
Hiring costs	KRW	761,225,208	756,146,931	1,074,507,644	902,484,594
Voluntary resignation rate	%	1.55	1.67	1.69	1.26
Total turnover	persons	272	660	669	817
No. of retirees	persons	-	356	355	578
Manager turnover rate	%	0.80	1.21	1.37	1.37
Employee satisfaction	points (100-point scale)	78	67	86	89
No. of strikes exceeding one week in duration	cases	none	none	none	none

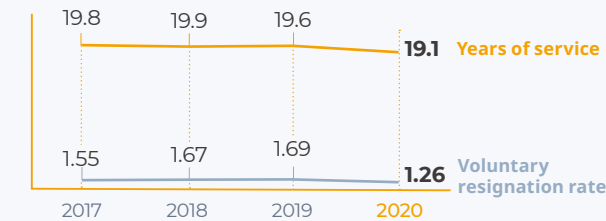
Training					
Training expenses per employee	million KRW	1.30	1.46	1.63	1.21
Total employee training costs (education and training costs)	million KRW	22,216	25,210	28,569	21,681
Training hours per employee	hours	100	94	89	78
Total training hours	hours	1,704,253	1,613,974	1,556,680	1,397,942

Pension Subsidies					
National pension (company contribution)	million KRW	39,820	41,465	43,230	44,937
Personal pension subsidies	million KRW	8,049	5,625	2,803	2,732
No. of personal pension beneficiaries	persons	6,478	6,759	4,354	4,197

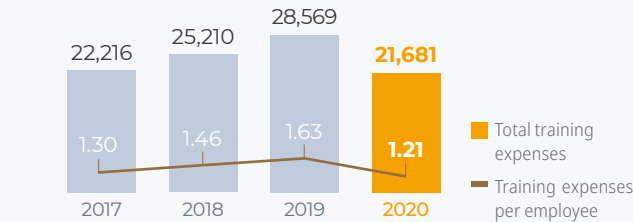
Employee Satisfaction (Unit: points)



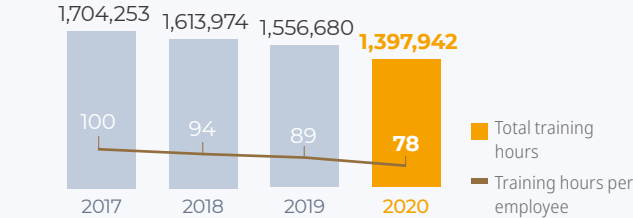
Years of Service and Voluntary Resignation Rate (Unit: years, %)



Training Expenses (Unit: million KRW)



Training Hours (Unit: hours)



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Indicator	Unit	2017	2018	2019	2020
Diversity					
Female share of total workforce	%	5.0	5.0	5.0	5.0
Females in managerial positions or higher <sup>1)</sup>	%	10.8	11.6	12.2	12.7
Females in top management positions (including directors)	%	1.4	1.3	2.6	3.7
Females in junior managerial positions <sup>2)</sup>	%	23.0	24.3	23.5	23.9
Female employees in managerial positions in revenue-generating department <sup>3)</sup>	%	14.0	15.9	19.2	20.0
Employees with disabilities	%	2.8	2.9	3.0	3.3

1) Percentage of women in management, from junior managers to top management  
2) A junior manager is defined as being at manager level. This definition may differ in the 2019 Corporate Citizenship Report.  
3) Percentage of female employees with a management or higher position in the Marketing Division

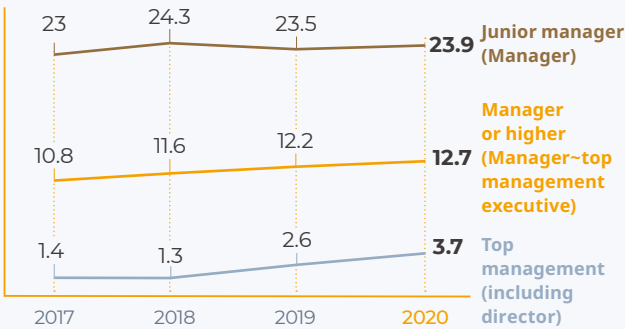
Work-Life Balance					
Total number of employees who took childcare leave	persons	87	76	103	97
Female employees who took childcare leave	persons	75	53	70	52
Male employees who took childcare leave	persons	12	23	33	45
Reinstatement after taking childcare leave	%	87.7	91.3	91.4	95.5
Reinstated employees 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	48,650	48,841	34,089
Volunteer hours per employee	hours	31	27	27	17.9
Total volunteer hours	hours	530,994	462,697	451,511	319,305

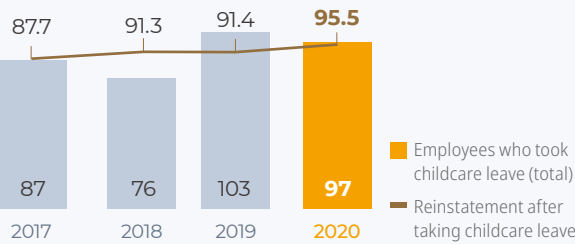
Customer Satisfaction					
Total	points (100-point scale)	81	82	84	- <sup>1)</sup>
Domestic	points (100-point scale)	85	89	90	-
International	points (100-point scale)	78	76	78	-

1) Survey was delayed in 2020 due to COVID-19 and will be conducted in 2021

Female Share of Total Workforce (Unit: %)



Employees Who Took Childcare Leave (Total) and Percentage of Reinstatement (unit: No. of persons, %)



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## Governance

Indicator	Unit	2017	2018	2019	2020
Board of Directors Composition					
<b>Board of Directors size</b>	<b>persons</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>
No. of executive directors	persons	5	5	5	5
No. of independent directors	persons	7	7	7	7
No. of other non-executive directors	persons	0	0	0	0
No. of female directors	persons	0	0	0	0
Board of Directors Management					
<b>Average board meeting attendance rate</b>	<b>%</b>	<b>100</b>	<b>99</b>	<b>100</b>	<b>98</b>
No. of independent directors with 4 or fewer mandates <sup>1), 2)</sup>	persons	7	7	7	7
<b>Average tenure of directors in years<sup>3)</sup></b>	<b>years</b>	<b>2.5</b>	<b>2.9</b>	<b>2.8</b>	<b>3.8</b>
1) 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					
2) 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					
3) Tenure calculated from April 2021					
Board of Directors Performance Evaluation					
Longest performance evaluation period covered by executive compensation	years	3	3	3	3
Longest performance evaluation period covered by CEO compensation	years	3	3	3	3
Share Ownership					
Share ownership multiples of CEO compared to base salary	multiples	0.74	0.25	0.24	0.46
Average share ownership multiples of executives compared to base salary	multiples	0.21	0.23	0.31	0.66
Percentage of share ownership over 5% by government agencies	%	11.08	10.72	11.80	11.75
Percentage of share ownership over 5% by founders and family	%	N/A	N/A	N/A	N/A
Compensation					
Total CEO compensation <sup>1)</sup>	million KRW	2,473	1,176 <sup>2)</sup>	1,617	1,927 <sup>3)</sup>
Average compensation of all employees (excluding CEO)	million KRW	90	98	97	98
Total CEO compensation/Average employee compensation	multiples	27.48	12	16.7	19.7

1) Salary registered with the exclusion of retirement grants    2) Salary paid in January–March, August–December  
3) 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 (2020, amounts over 1 billion KRW)

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

### Amount of Membership Fees Paid (Unit: one thousand KRW)

Category	2017	2018	2019	2020
Tax-exempt group (nonprofits, etc)	6,405,343	6,693,557	6,955,811	6,807,845
Lobbying, interest representation	0	0	0	0
Political campaigns/organizations	0	0	0	0
Others	0	0	0	0

### Major Associations and Membership Fees Paid (2020, Unit: one thousand KRW)

Category	Total Amount of Paid Fees
Korea Iron & Steel Association (KOSA)	2,474,000
World Steel Association (WSA)	950,000
Korea Employers Federation (KEF)	318,050

\* Purpose of Participation in Organization

- 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



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# TCFD

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



# SASB(Domestic Steelworks)

## Sustainability Disclosure Topics and Accounting Metrics

\*Coverage: Domestic worksites, including Pohang Works and Gwangyang Works, that manage POSCO-exclusive crude steel output

Code	Category	Unit	Accounting Metric	POSCO's Response
Greenhouse Gas Emissions				
EM-IS-110a.1	Quantitative	metric tons (t), percentage (%)	(1) Gross global Scope 1 emissions, (2) Percentage covered under emissions-limiting regulations	(1) 75,069,656 (2) 100% Scope 1 emissions are based on those generated from domestic worksites (Pohang Works and Gwangyang Works). POSCO receives verifications for its Scope 1 emissions through verified GHG statements.
EM-IS-110a.2	Discussion and Analysis	-	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	POSCO announced its POSCO 2050 Carbon Neutrality goal in December 2020. It sets its reduction goals for 2050 by increasing hydrogen-based steelmaking to 20% by 2030, and to 50% by 2040. Low-carbon strategies in conformity with reduction routes are detailed in the climate-change response document. <a href="#">▶ Direct Link</a> POSCO will further promote its detailed plans in ten-year units to reflect the national energy mix and hydrogen-based enforcement results.
Air Emissions				
EM-IS-120a.1	Quantitative	metric tons (t)	(1) NOx (excluding N <sub>2</sub> O) (2) SOx (3) particulate matter (PM10) (4) CO (5) manganese (MnO) (6) lead (Pb) (7) volatile organic compounds (VOCs) (8) polycyclic aromatic hydrocarbons (PAHs)	40,700 24,900 POSCO manages PM10 on a Total Suspended Particles (TSP) standard, while the dust (TSP) emissions total 264 tons. 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.
Energy Management				
EM-IS-130a.1	Quantitative	gigajoules (GJ), percentage (%)	(1) total energy consumed (2) percentage grid electricity (3) percentage renewable	374,874,610 1.2% POSCO sold 16,287 GJ of its produced renewable energy, with the amount used totaling 318 GJ.
EM-IS-130a.2	Quantitative	gigajoules (GJ), percentage (%)	(1) total fuel consumed (2) percentage coal (3) percentage natural gas (4) percentage renewable	370,394,000 The percentage of by-product gas out of total gas is 84.7%. Not Applicable POSCO uses coal as a reducing agent (raw material). 14.1% Not Applicable
Water Management				
EM-IS-140a.1	Quantitative	thousand cubic meters (m <sup>3</sup> ) percentage (%)	total fresh water withdrawn percentage recycled percentage in regions with 'High (40-80%)' Baseline Water Stress percentage in regions with 'Extremely High (>80%)' Baseline Water Stress	136,400 37.2% (Percentage of recycled rainwater and wastewater) POSCO recycles a portion of its collected wastewater and rainwater, with the recycled amount internally calculated and managed through wastewater/rainwater treatment facilities 0 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. 0 In Korea where POSCO's domestic worksites are located, Baseline Water Stress is not particularly high in any region, so this usage metric is not applicable.



# SASB(Domestic Steelworks) Sustainability Disclosure Topics and Accounting Metrics

Code	Category	Unit	Accounting Metric	POSCO's Response
Waste Management				
EM-IS-150a.1	Quantitative	metric tons (t), percentage (%)	total amount of waste generated	21,974,669 POSCO is managing its generation and treatment of waste through Allbaro, the Korean government's official waste disposal system.
			percentage hazardous	POSCO follows the criteria set forth by the Waste Management Act of Korea in managing the waste generated, treating waste containing hazardous substances as "designated waste," and legally disposing of them. POSCO's definition of designated waste differs from that of the SASB. The percentage of designated waste generated amounts to 0.4%.
			percentage recycled	98.6%
			Workforce Health & Safety	
EM-IS-320a.1	Quantitative	incidence rate per 200,000 hours	total recordable incident rate (full-time and contract, TRIR)	0.07
			Fatality rate (full-time and contract)	0.011
			near miss frequency rate (full-time and contract)	34.96 The near-miss frequency rate was based on directly operated worksites only.
Supply Chain Management				
EM-IS-430a.1	Discussion and Analysis	-	Discussion of the process for managing iron ore and/or coking coal sourcing risks arising from environmental and social issues	POSCO is collaborating on hydrogen and low-carbon/low-cost technology development with overseas coal and iron ore suppliers for the construction and sustainability of the low-carbon supply chain across the steelmaking industry. With the expanded use of low-ash coal and low-and-medium nitrogen anthracite, it is also actively promoting the practice of reducing environmentally harmful emissions. In addition, POSCO has created the GEM (Go Extra Mile) Matching Fund for collaborating with overseas suppliers to support reforestation and social projects in Korea and overseas. These include national planned forestry, fire-damage reforestation, and fine dust reduction, as well as low-income education and employment link projects. POSCO is also working on the steel industry's goal of expanding the procurement percentage of coal and iron ore from matched suppliers. To help resolve conflicting social issues such as human rights and environmental welfare during mining practices, POSCO became the first steelmaker in Korea to join the RMI in 2020 and simultaneously established the OECD Due Diligence Guidance-based 5-Step Framework to implement responsible mineral supply chain management. POSCO gives credit to outstanding suppliers for resolving environmental and social issues, and executes regular evaluations to promote mutually beneficial relationships with outstanding ESG companies and help companies with a less competitive edge with collaborative improvement policies.

## Activity Metric

Code	Category	Unit	Accounting Metric	POSCO's Response
EM-IS-000.A	Quantitative	metric tons (t), percentage (%)	Raw steel production, percentage from: (1) basic oxygen furnace processes, (2) electric arc furnace processes	Concerned data was calculated based 100% on POSCO's domestic worksites. (1) Production volume: 34,703,001, Percentage: 96.57% (2) Production 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.



# SASB(Domestic and Overseas Steelworks)

## sustainability Disclosure Topics and Accounting Metrics

\* 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.

Code	Category	Unit	Accounting Metric	POSCO's Response	
Greenhouse Gas Emissions					
EM-IS-110a.1	Quantitative	metric tons (t), percentage (%)	(1) Gross global Scope 1 emissions, (2) Percentage covered under emissions-limiting regulations	(1) 81,306,366 (2) 92.3% As of the end of 2020, Korea is the only country subjected to Scope 1 emission regulations.	
EM-IS-110a.2	Discussion and Analysis	-	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	With domestic worksites accounting for 92.3% of total emissions, detailed roadmaps aiming for 2050 Carbon Neutrality are disclosed to achieve the reduction goals of 20% by 2030, and 50% by 2040. <a href="#">▶ Direct Link</a> Plans are being established to reduce Scope 1 emissions in foreign worksites through increased scrap use and smart production processes.	
Air Emissions					
EM-IS-120a.1	Quantitative	metric tons (t)	(1) NOx (excluding N <sub>2</sub> O)	40,963	Emissions from corporations were calculated in only countries (Korea and China) that are subjected to regulations based on total emissions.
			(2) SOx	25,031	
			(3) particulate matter (PM10)	573	
			(4) CO		
			(5) manganese (MnO)		
			(6) lead (Pb)	Not Applicable	
			(7) volatile organic compounds (VOCs)		
			(8) polycyclic aromatic hydrocarbons (PAHs)		
Energy Management					
EM-IS-130a.1	Quantitative	gigajoules (GJ), percentage (%)	(1) Total energy consumed	396,672,188	
			(2) percentage grid electricity	2.9%	
			(3) percentage renewable	The renewable energy usage is 6,770 GJ.	
EM-IS-130a.2	Quantitative	gigajoules (GJ), percentage (%)	(1) Total fuel consumed	385,353,527	The percentage of by-product gas out of total gas is 82.4%.
			(2) percentage coal	Not Applicable	POSCO uses coal as a reducing agent (raw material).
			(3) percentage natural gas	14.7%	
			(4) percentage renewable	Not Applicable	
Water Management					
EM-IS-140a.1	Quantitative	thousand cubic meters (m <sup>3</sup> ) percentage (%)	Total fresh water withdrawn	151,730	
			percentage recycled	34.1% (Percentage of recycled rainwater and wastewater)	
			percentage in regions with High (40-80%)* Baseline Water Stress	0	POSCO's domestic and overseas worksite regions all have Baseline Water Stress below 40%, so this water usage metric is not applicable.
			percentage in regions with Extremely High (>80%)* Baseline Water Stress	0	POSCO's domestic and overseas worksite regions all have Baseline Water Stress below 40%, so this water usage metric is not applicable.





# SASB(Domestic and Overseas Steelworks)

## Sustainability Disclosure Topics and Accounting Metrics

Code	Category	Unit	Accounting Metric	POSCO's Response
Waste Management				
EM-IS-150a.1	Quantitative	metric tons (t), percentage (%)	Total amount of waste generated	24,356,843
			percentage hazardous	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.
			percentage recycled	97.4%
Workforce Health & Safety				
EM-IS-320a.1	Quantitative	incidence rate per 200,000 hours	Total recordable incident rate (full-time and contract, TRIR)	0.068
			Fatality rate (full-time and contract)	0.008
			near miss frequency rate (full-time and contract)	29.52 Coverage pertains only to Korean domestic worksites (under direct operation) and China's POSCO (Zhangjiagang) Stainless Co., Ltd., (overall).
Supply Chain Management				
EM-IS-430a.1	Discussion and Analysis	-	Discussion of the process for managing iron ore and/or coking coal sourcing risks arising from environmental and social issues	POSCO is a member of the RMI and is fortifying ESG collaboration with its raw materials suppliers. <a href="#">Direct Link</a>

### Activity Metric

Code	Category	Unit	Accounting Metric	포스코 대응
EM-IS-000.A	Quantitative	metric tons (t), percentage (%)	Raw steel production, percentage from: <b>(1) basic oxygen furnace processes,</b> <b>(2) electric arc furnace processes</b>	Concerned data was calculated based on 100% of POSCO's domestic crude steelworks. <b>(1) Production volume: 34,803,322, Percentage: 93.16%</b> <b>(2) Production volume: 2,775,245, Percentage: 6.84%</b>
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.

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# Independent Assurance Report on the Identified Sustainability Information in POSCO's Corporate Citizenship Report

(English Translation of a Report Originally Issued in Korean)

## 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 in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

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

- Interview with the personnel responsible for internal reporting and data collection regarding POSCO's Identified Sustainability Information to understand

their approaches to managing material issues

- Understand the systems and processes in place for managing and reporting the Identified Sustainability Information of Seoul office and iron and steel producers in Gwangyang/Pohang
- Review documents relevant to output from the risk assessment process, sustainability-related policies and standards, materiality assessment, engagement activities of the stakeholders and others
- Perform inquiries and analytical reviews on the Identified Sustainability Information

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

## Limited Assurance Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that POSCO's Identified Sustainability Information the year ended 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

*Samil PricewaterhouseCoopers*

OVERVIEW



BUSINESS



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ESG FACTBOOK

ESG DATA  
SASB

Written Verification  
Opinion

# Independent Assurance Report on Carbon Reporting

(English Translation of a Report Originally Issued in Korean)

## 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 CO<sub>2</sub> (Avoided CO<sub>2</sub>) 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), Greenhouse Gas Protocol (GHG Protocol) (the 'Criteria').

## POSCO's 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.

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 Carbon Reporting Information, assessing the risks of material misstatement of the Identified Carbon Reporting 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 Carbon Reporting Information. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

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

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

- Interview with the personnel responsible for internal reporting and data collection of GHG data
- Understand the processes in GHG emissions (Scope 1, Scope 2), GHG intensity, Social CO<sub>2</sub> (Avoided CO<sub>2</sub>) Reduction Effect measured by POSCO
- Perform inquiries and analytical reviews on the Identified Carbon Reporting Information

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement. Accordingly, we do not express a reasonable assurance opinion about whether POSCO's Identified Carbon Reporting 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 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

*Samil PricewaterhouseCoopers*



OVERVIEW



BUSINESS



SOCIETY



PEOPLE

GOVERNANCE

ESG FACTBOOK



▲ 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.

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:

Investor Relations Group	Tax Accounting Group
Smart Factory Planning Group	Solution Strategy Group
Corporate Strategy Planning Group	Hydrogen Business Office
Process and Engineering R&D Center	Safety Planning Group
Procurement Planning Group	Business Ethics Risk Management Bureau
Corporate Citizenship Strategy Group	LiB Materials Business Strategy Group
Labor Planning Group	Human Resources and Corporate Culture Office
Labor and Management Development Group	Human Resources Management Office
Shared Growth Group	Finance Management Group
Marketing Support Group	Materials Procurement Group
Legal Affairs Office	Information Security Bureau
Venture Valley Group	Steelmaking Raw Materials Group
Venture Fund Group	Environmental Consultation Supporting Group
Health Care Planning Group	Communication Office
By-product Recycling Group	Carbon Neutral & Environmental Affairs Group
Corporate Social Responsibility Group	Investment Planning Group 1
Coal Group	Sales and Production Planning Group
Iron & Steelmaking Production and Technology Group	POSCO Group University

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