

POSCO E&C
Corporate Citizenship Report 2020

Build **VALUE** Together



posco
E&C

ABOUT THIS REPORT

Report overview

POSCO E&C is promoting various economic, social and environmental value creation activities throughout its business performance. In a bid to transparently disclose all the information to our stakeholders, we have been publishing sustainability reports every year since 2012. To reflect our stakeholders' opinions in the process of publishing the reports, we selected material reporting issues through materiality assessment and interviews conducted with our stakeholders, including customers, suppliers, and external experts. The sustainability report was renamed the Corporate Citizenship Report in 2020. In this report, we have included our performances and efforts largely throughout 2020 in the areas of business, society, and people under our sustainable corporate management philosophy based on the notion of "corporate citizenship."

Reporting period and boundaries

This report has been prepared focusing largely on our activities from January 1 to December 31, 2020, including some significant achievements made in the first half of 2021. In terms of quantitative performances, we present three-year data from 2018 to 2020 to help our stakeholders figure out notable trends.

Report assurance

This report is assured by a third-party assurance agency, Lloyd's Register Korea, to ensure reliability and fairness in the report preparation process and the compilation of public data and contents.

Reporting standards

This report was written in accordance with the Core option of the Global Reporting Initiative (GRI) Standards, the global standards for sustainability reporting. It has also reflected ISO 26000, UN Global Compact principles, Sustainability Accounting Standards Board (SASB), and Task Force on Climate-related Financial Disclosures (TCFD). The financial data is on a consolidated basis, following the Korean International Financial Reporting Standards (K-IFRS) in terms of reporting standards and definitions. All non-financial data, as well as financial data, are prepared for the relevant fiscal year according to our disclosure principle. Data related to energy consumption and greenhouse gas emissions are prepared according to the results of the emissions verification. Any major changes are indicated separately.

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CEO Message



We will take another leap as
a responsible corporate citizen
by fulfilling the vision of “building
value together” with stakeholders.

As the business environment is changing rapidly due to the COVID-19 pandemic and the global climate crisis, ESG (environmental, social, and governance) management has become a key factor linked to corporate sustainability and value enhancement. POSCO Group has been contemplating the company’s goal, and since the declaration of “Corporate Citizenship: Building a Better Future Together” as its new management philosophy in 2018, the Group, as a member of society, has striven to contribute to making the world a better place by communicating with various stakeholders and participating in addressing social issues beyond the creation of economic profits.

Based on the management philosophy of “corporate citizenship,” POSCO E&C has carried out various activities to create symbiotic values with business partners, promote companionship with the community, and create a safe and happy workplace. As a result of such efforts, POSCO E&C has had its credit rating upgraded to A+ and recovered the top 5 position in the national construction capability assessment. We ranked first in the Korean Standard Quality Excellence Index (KS-QEI) for 11 consecutive years and in the sustainability index for three consecutive years in the construction sector despite the adverse business environment at home and abroad.

Going forward, in 2021, we will build a company-wide consensus on the climate crisis, establish a carbon-neutral roadmap to respond to climate change, and refrain from our participation in new coal-fired power generation projects as we officially begin implementing the business strategies and portfolio management that consider the

environment and our future values. Most notably, we will expand the application of smart safety with an aim to create an accident-free workplace by always placing safety as our top priority, while seeking shared growth with our suppliers through the establishment of an ESG purchase management system designed to strengthen their ESG capabilities.

To that end, we have established a dedicated ESG organization and recruited outside experts in the fields of environment and governance for the Corporate Citizenship Consultative Groups to further bolster the foundation of our ESG management. Externally, we will place particular focus on the promotion of the UN Global Compact (UNGC), the world’s largest corporate sustainability initiative, in four areas: human rights, labor, environment, and anti-corruption.

Lastly, through this Corporate Citizenship Report, we would like to share the results of our corporate citizenship performance in 2020 from our stakeholders’ perspective on ESG in particular. In 2021, we will faithfully fulfill our role and responsibility as a “corporate citizen.” We will be looking forward to your continued interest and encouragement in our earnest efforts to make the world a better place.

Thank you.

July 2021

Han Sung-Hee, President & CEO of POSCO E&C

한 성희

About Company







POSCO Group

POSCO Group is composed of group affiliates of various business areas, including construction, energy, ICT, and new materials, and is headed by POSCO, which has paved the way for the steel industry of Korea since 1968. The Group is firmly establishing its presence as a global business group by enhancing its capability through continuous business expansion and innovative technological development.

POSCO Group Affiliates

Steel Business	POSCO C&C, SNNC, POSCO RTECH, Pohang Special Welding
Global & Infra Business	POSCO E&C, POSCO INTERNATIONAL, POSCO ENERGY, POSCO ICT, POSCO SPS, POSCO M-TECH, POSCO O&M, POSCO CAPITAL, POSCO TERMINAL, POSCO A&C, eNtoB, POSCO HUMANS, PNR, Busan E&E, Samcheok Blue Power
Support	RIST, POSCO Research Institute, POSCO Group University, Pohang University of Science and Technology (POSTECH), POSCO TJ Park Foundation, POSWEL, POSCO Educational Foundation, POSCO 1% Sharing Foundation, POSCO Smile Microcredit Bank, POSCO Korean Federation of Community Credit, Steel & Convergence Technology Research Association
New Growth Business	POSCO CHEMICAL, PMC Tech, P&O Chemical

Overview of POSCO (as of 2020)

Consolidated Revenue  KRW 57,793 billion	Consolidated Operating Profit  KRW 2,403 billion	Separate Crude Steel Production  35,934,000 tons
Credit Rating  AA+ (Stable)	S&P  BBB+ (Stable)	Moody's  Baa1 (Stable)


Management Philosophy



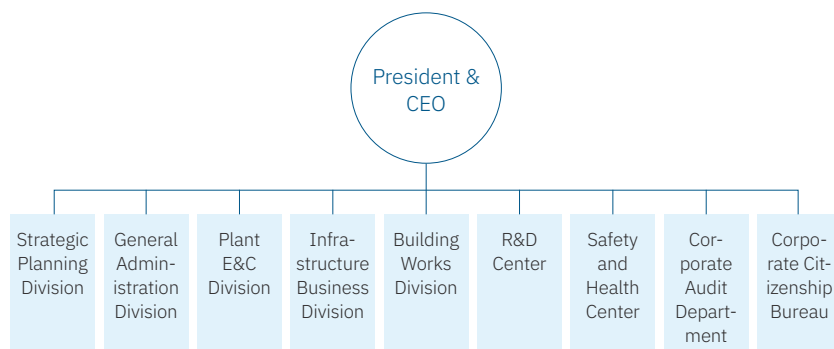
POSCO E&C

Since its inception in 1994, POSCO E&C has aimed to become a global engineering and construction company leading the industry in various business areas, such as steel plants, industrial plants, energy plants, infrastructure, and residential facilities. As a member of POSCO Group and “a corporate citizen that builds a better future together,” we are carrying out a host of corporate social responsibility (CSR) activities at home and abroad through constant communication with our stakeholders. Currently ranked 5th in Korea’s construction capability assessment and 61st worldwide in the Engineering News-Record (ENR) list, POSCO E&C is accelerating its growth into a general construction company with global competitiveness.

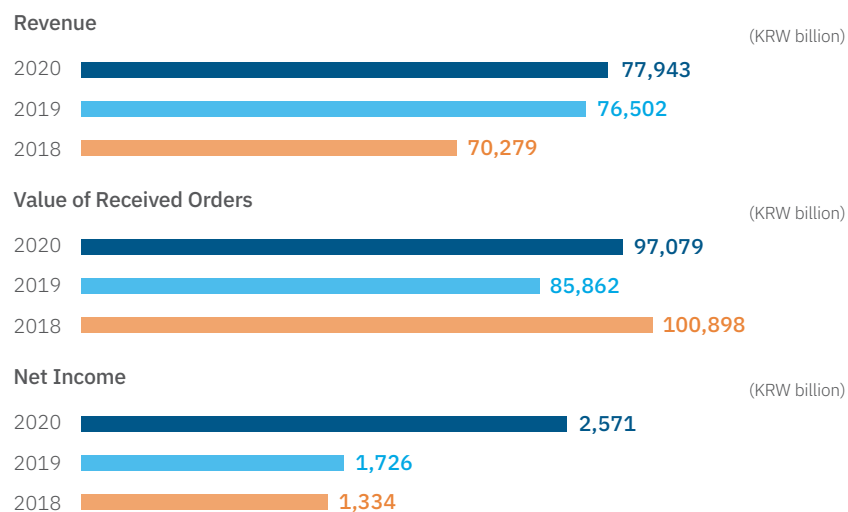
Overview of POSCO E&C (as of 2020)

Company name  POSCO E&C	President & CEO Han Sung-hee Date of establishment Dec. 1, 1994	Headquarters  180, Daesong-ro, Nam-gu, Pohang-si, Gyeongsangbuk-do
Major businesses  Plant, infrastructure, and construction businesses	Number of employees  5,547	Credit rating (Korea Investors Service)  Corporate bill A2+ Corporate bond A

Organizational Chart



Management Performance (as of 2020)

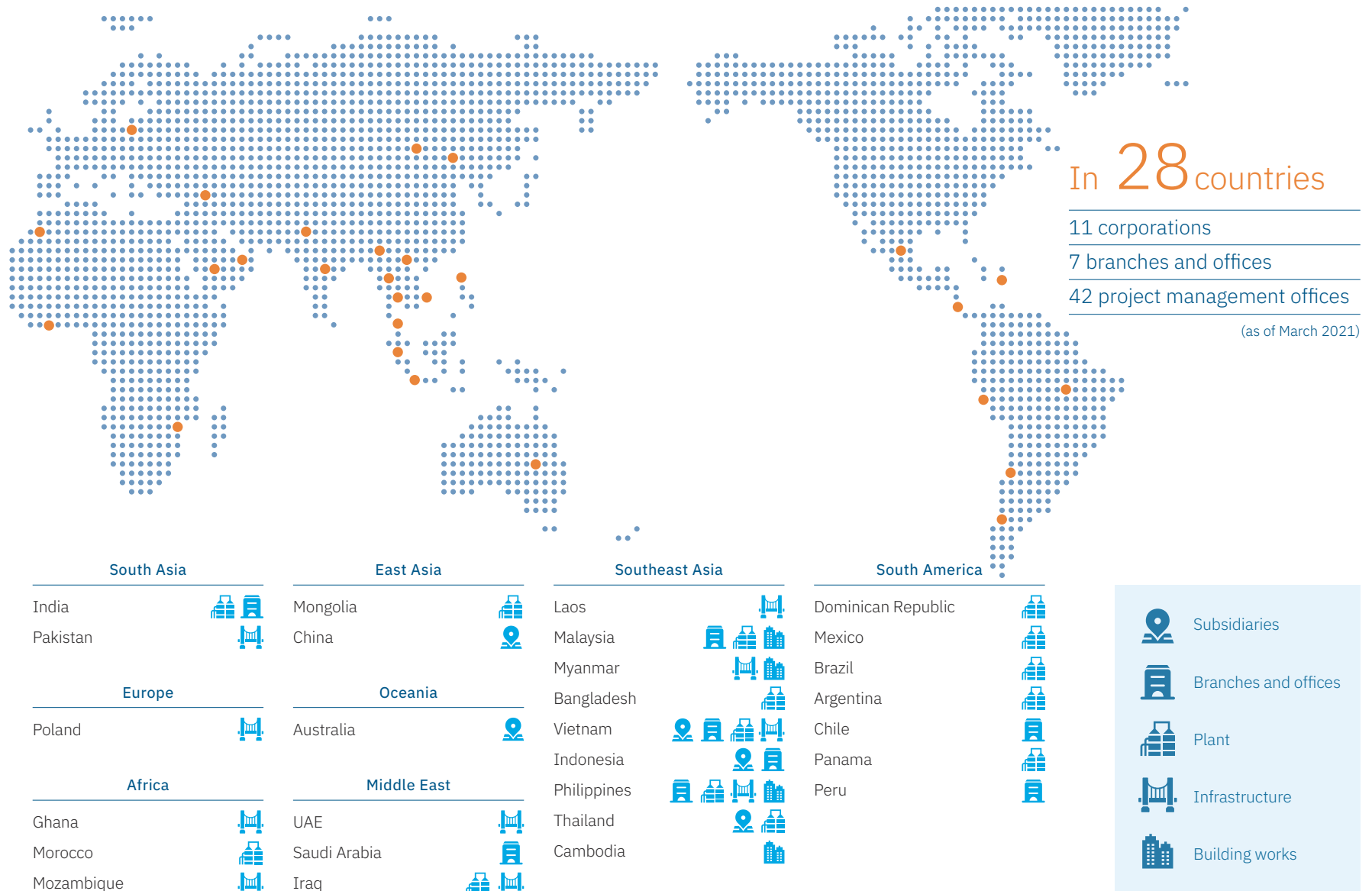


Strategic Directions

01 Advance- ment of PLC management system • Improvements in manpower competitiveness, productivity, and project management capabilities	02 Enhancement of high-margin business • Enhancement of architectural brand, differentiation in privately funded projects	03 Expansion of new growth business • Response to Green New Deal and Digital New Deal projects	04 Emerging as a trendsetter for construction steel materials • Development of a new paradigm for eco-friendly construction steel materials	05 Reinforcement of ESG management • Pursuing coexistence with the environment, a safe workplace, and shared growth
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Global Network

Continuing to strengthen its global engineering technology through networks built in over 28 countries, POSCO E&C is growing into a world-class E&C company based on its differentiated technological edge and extensive experience that it has gained through a number of overseas projects.



Business Portfolio

Plant

POSCO E&C, which has built steel mills in Pohang and Gwangyang of POSCO, the world's most competitive steelmaker, is a total solution provider in the steel plant sector. We have successfully carried out the CSP Integrated Steel Plant in Brazil and the Krakatau Integrated Steel Plant in Indonesia. Since our first advancement into the South American power plant business in 2006, we have been emerging as a strong player in the Southeast Asian power generation EPC market. Recently, we are diversifying our business portfolio into industrial plants, rechargeable batteries, raw material processing, and non-ferrous fields.

Business Outlook

While the demand for resource development is increasing mainly in Southeast Asia, Central and South America, and Africa, new investment is expected to stagnate due to recent greenhouse gas (GHG) emissions regulations. However, with the global emergence of eco-friendly policies, the demand for clean energy is in the rising trend. In Korea, the new and renewable energies and industrial plant markets are expected to expand in line with the government's push for Green New Deal and Digital New Deal policies. POSCO E&C is strengthening its eco-friendly business capabilities to preempt the renewable power generation and hydrogen markets.

Revenue (consolidated) (KRW billion)



Orders received (KRW billion)



Celltrion Songdo Production and Research Facility Construction Project, Korea

Period: October 2020 – June 2022

Scope: Construction of Celltrion's Global Biotechnology Research Center

Rechargeable battery



PosLX Demonstration Plant for Lithium Extraction, Argentina

Period: August 2019 – June 2020

Scope: Demonstration plant for lithium extraction from salt lake
- Capacity: 2,500 tons of lithium phosphate/year

Chemical plant



Colon LNG Facility, Panama

Period: May 13, 2016 – July 31, 2019

Capacity: 380 MW (Net) x 1 unit

Steel plant



Second Revamping Work for Gwangyang No. 4 Blast Furnace, Korea
 Period: December 2020 – August 2022
 Scope: Renovation of the main body and ancillary equipment of Gwangyang No. 4 Blast Furnace

Power plant



Namjeju Combined Cycle Power Plant Project, Korea
 Period: January 2019 – November 2020
 Capacity: 173 MW x 1 unit

Kim Min-cheol, head of Plant E&C Division



The Plant Engineering and Construction Division is contributing to the reduction of pollutant emissions by carrying out eco-friendly projects, such as environmental pollution control facility, LNG combined cycle power plant and LNG terminal projects. To achieve carbon neutrality, we are striving to shift the focus of our business portfolio to the creation of social values from the rechargeable electric vehicle (EV) battery material business and the green hydrogen business using eco-friendly energy.

Industrial plant



Construction of Mastern Ansan Logistics Center, Korea
 Period: January 2019 – January 2021
 Scope: Construction of a logistics center, including a refrigerated warehouse, with one basement level and 10 floors above the ground



Expansion of APRO PROJECT Suites 3 & 4, Korea
 Period: April 2019 – February 2021
 Scope: Expansion of suites 3 & 4 and construction of automated warehouse and wastewater treatment plant



Expansion of new and renewable energy business models



POSCO E&C engages in new and renewable energy projects, which include solar energy, wind energy, and waste, to supply electricity to every region of the country. We are also making every effort to increase our contribution in the relevant fields by developing floating solar panels and securing core competencies for offshore wind turbines.

Renewable energy capacity installed **255.82MW**

Infrastructure

POSCO E&C is building major transportation infrastructures and eco-friendly convergence facilities in Korea and abroad based on its top-tier technologies and capabilities. We contribute to the nation's and local communities' development by building infrastructures such as roads, railroads, ports, and water/waste treatment facilities, which are critical for elevating living conditions and boosting industrial activity. Notably, in the railroad sector, we are accelerating our entry into overseas markets, mainly Asia and Central America. In recognition of our outstanding competency in waste-to-energy plant projects, We recently won a new contract in Europe in recognition of our outstanding competency in the eco-friendly business, further strengthening our foundation for global expansion.

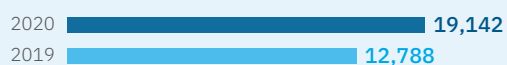
Business Outlook

The domestic infrastructure market is expected to expand due to the government's SOC investment for balanced national development and its plan to expand the regional transportation network linked to the 3rd New Towns construction project. In abroad, investment in infrastructure is expected to increase in Asia for economic development and improvement in transportation networks. Through collaboration with POSCO O&M, we discover business opportunities in funded projects for roads, railroads, and eco-friendly water treatment facilities, among others. We are focusing on developing our competitiveness by offering comprehensive project management services from planning to design, construction, and operation.

Revenue (consolidated) (KRW billion)



Orders received (KRW billion)



Jido-Imjado Bridge Construction Project, Korea

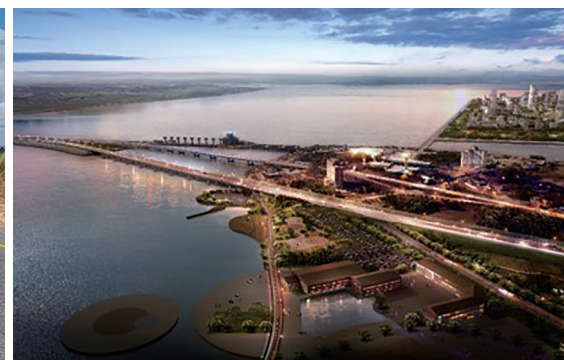
Period: October 2013 – March 2021, Scope: Construction of a bridge 4.99 km long and 11 m wide (2 lanes)

Road



Rehabilitation of Nampula-Nametil Road Project, Mozambique

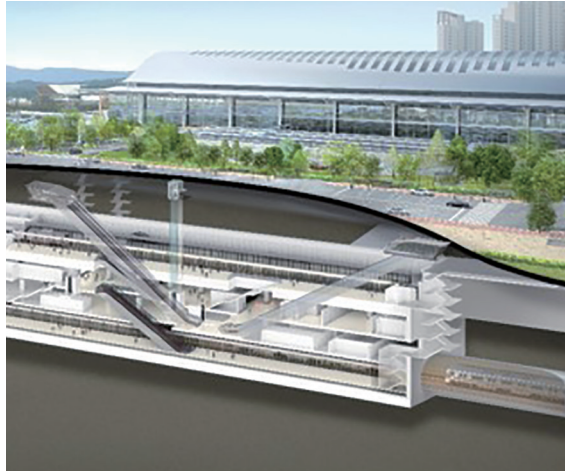
Period: January 2018 – July 2020
Scope: Improvement of existing roads
(70.65 km of two-lane roads and 6 bridges)



Western Inland Highway Project, Korea

Period: December 2019 – December 2024
Scope: 137 km in total length, 15 access facilities, 3 rest areas

Railroad and New transportation



Sinansan Railway Project, Korea

Period: April 2020 – April 2025

Scope: Length 44.8 km (15 stations, Songsan Garage)

Port and Site



LSP PKG L (Land), F (Port), Vietnam

Period: September 2018 – April 2021

Scope: 218 ha of site development, 2 berths, 1 construction pier

Choi Seung-ho, head of Infrastructure Business Division



The Infrastructure Business Division contributes to resolving major transportation problems through the implementation of the Sinansan Railway and Western Inland Highway projects, which have been sought by the government and local communities. We also lead the industry in overseas market entry, including developed countries, based on our capabilities in the areas of eco-friendly water treatment and waste treatment that we have accumulated by carrying out the country's large-scale projects. We will engage in climate change response by expanding our business to carbon-neutral areas such as offshore wind power, seawater desalination, and organic waste.

Environment



Warsaw Waste-to-Energy Plant, Poland

Period: November 2020 – January 2024

Scope: Extension and modernization of waste treatment plant



Expansion of Wastewater Treatment Project, Ho Chi Minh City, Vietnam

Period: July 2015 – August 2021

Scope: Expansion of 328,000 tons of sewage treatment per day, 9 additional buildings



Securing transportation access for all with the opening of Imjadaegyo Bridge



It took an hour by boat from Imjado Island to Jido Island in Sinan-gun, Jeollanam-do. By completing the Imjadaegyo Bridges 1 and 2, POSCO E&C has reduced the travel time to five minutes, thus raising residents' convenience and vitalizing the local economy.

Travel time 60minutes → 5minutes

Urban Development & Architecture

Based on accumulated technologies, POSCO E&C integrates a series of project processes for planned cities and private complexes, thereby leading the construction of skyscrapers and commercial complexes. We have successfully carried out urban development projects, including the Songdo International Business District (IBD) in Korea and Splendora in Vietnam, and advanced ourselves as a developer. We have also proven our competitiveness in the remodeling business by obtaining approval for the vertical extension of buildings, for the first time in Korea.

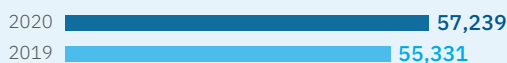
Business Outlook

In keeping with the changing landscape of the regulations on the local real estate market, the government introduced policies to expand housing supply through the 3rd New Towns and public building renovation projects. Amid the COVID-19 crisis, the government's New Deal policies require a transition to a low-carbon economy while consumers' needs get increasing sophisticated, making it crucial to come up with distinct brands and products. POSCO E&C will strive to secure capabilities of reducing energy consumption and carrying out construction in eco-friendly ways and thus raise customer satisfaction through specialized product development. We will take the opportunity to boost demand for construction steel materials with prominent edges in resource circulation, thereby playing the role of a trendsetter for the construction steel materials.

Revenue (consolidated) (KRW billion)



Orders received (KRW billion)



Haeundae LCT THE SHARP, Korea

Period: October 1, 2015 - November 29, 2019, Scope: 5 basement levels, 101 floors above the ground, total floor area of 661,134m²

Office and Commercial facility



Yeouido Parc1, Korea

Period: January 20, 2017 – July 14, 2020

Scope: 7 basement levels, 69 floors above the ground, total floor area of 629,047m²

Urban development / Complex development



Songdo International Business District Development Project, Korea

Period: 2003 - 2025, land area of 5,770,553m²

Residence



Busan Myeongji THE SHARP First World, Korea

Period: September 1, 2017 – July 31, 2020

Scope: 3 basement levels, 34 floors above the ground,
3,196 households



THE SHARP Songdo Marina Bay, Korea

Period: June 8, 2017 – July 13, 2020

Scope: 2 basement levels, 38 floors above the ground,
3,100 households

Jeong Hee-min, head of Building Works Division



POSCO E&C shows active engagement in preparing for the ESG era. We are taking the lead in reducing carbon emissions and improving energy efficiency through the development and remodeling of technological factors required for zero-energy buildings (ZEB). We will quickly respond to the trend towards carbon neutrality by expanding the application of off-site construction (OSC) business and construction steel materials.



Cultural facility and Exhibition center



Songdo Convensia, Korea

Period: March 2005 – April 2008 (Phase 1),
December 2015 – July 2018 (Phase 2)

Scope: 1 basement level and 4 floors above the ground



POSCO Park 1538, Korea

Scope: 1 basement level, 3 floors above the ground,
land area of 40,028m², total floor area of 7,210.06m²

Creating a sustainable, eco-friendly smart city



POSCO E&C creates a sustainable, eco-friendly smart city through the International Business District development project, which will become the center of Songdo-dong, Incheon. The district is designed for a city where all functions are harmonized. With the district's energy-saving, resource recycling, and innovative design initiatives recognized, the Songdo International Business District has acquired the Leadership in Energy and Environmental Design (LEED), an eco-friendly building certification, for its buildings and the LEED for Neighborhood Development (ND) for the first time in Korea.

LEED-certified buildings in Songdo 17



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Stakeholder Engagement

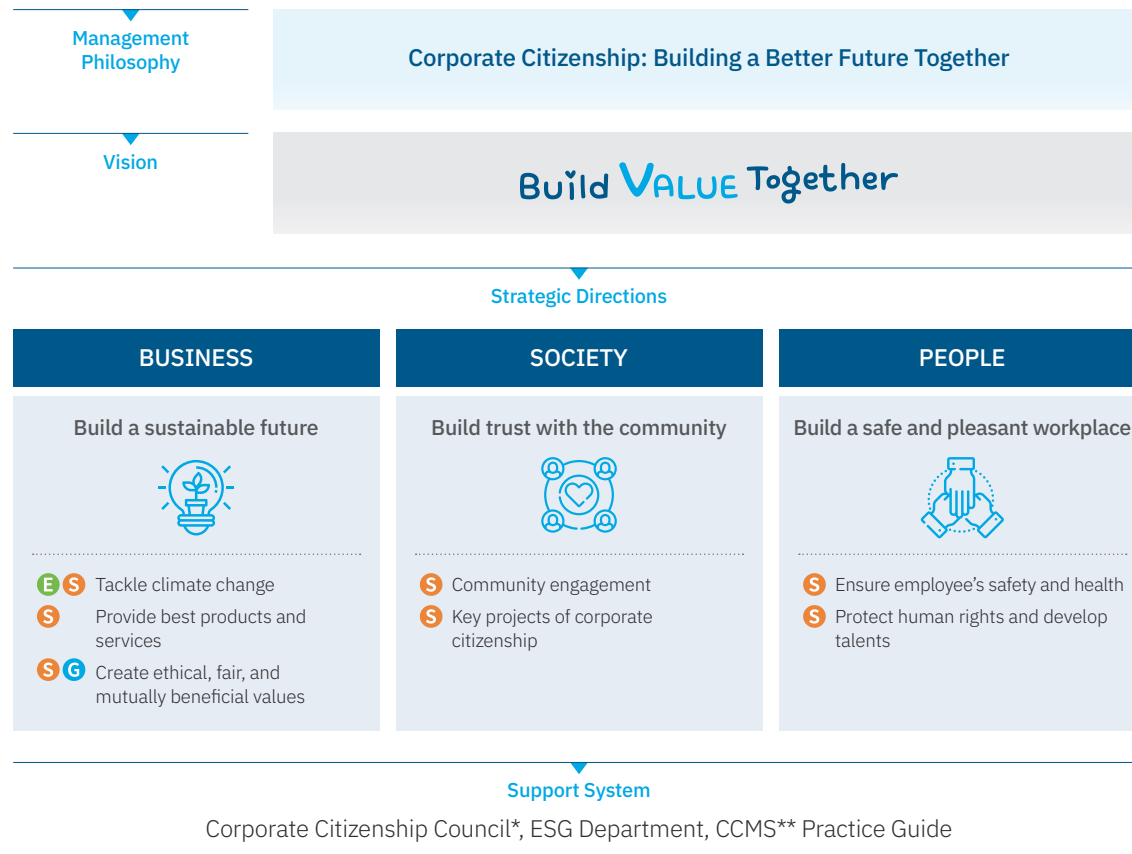
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Materiality Assessment

ESG Strategy and Implementation System

In line with the management philosophy of “Corporate Citizenship: Building a Better Future Together,” POSCO E&C has established an ESG strategy for sustainable growth and set strategic tasks and key performance indicators (KPIs) accordingly, which is doing its utmost to implement in a sustainable way. We are taking the lead in achieving the UN Sustainable Development Goals (SDGs) and following our commitment in the United Nations Global Compact (UNGC) initiative. We plan to further strengthen our response to climate change through voluntary participation in the Carbon Disclosure Project (CDP).

ESG Strategy



Reinforcing the ESG-dedicated organization

In 2020, POSCO E&C established the Corporate Citizenship Bureau as a department under the direct control of the CEO to internalize the corporate citizenship management philosophy and bolster its execution ability. In 2021, we launched ESG Section within the bureau and integrated the Social Contribution Group as part of our efforts to establish more systematic governance and enhance our execution capabilities in the area.

Corporate Citizenship Council

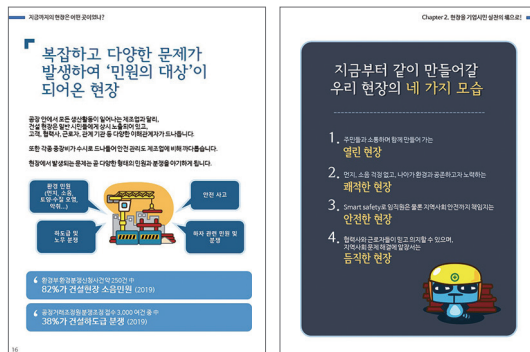
POSCO E&C operates consultative groups at three levels—executive-level, managerial-level, and working-level—to secure the execution power for systematic implementation of corporate citizenship. The Corporate Citizenship Council is chaired by the president, and all executives participate to set company-wide strategies and directions, periodically check performances, and implement executive-led strategic tasks. The Managerial-level Council participated by major group heads and section leaders support the council's decision-making and promote collaboration and coordination between departments. Lastly, the Working-level Subcommittee participated by working-level staff from the areas of business, society, and people share their work performance, discover new ideas, and encourage employee participation.

* Corporate Citizenship Council holds a quarterly meeting among executives and experts to discuss corporate citizenship (ESG) topics.

** Corporate Citizenship Management Standards (CCMS) require that the management philosophy of corporate citizenship be implemented at work and in everyday lives.

CCMS and practice guide for field workers

POSCO Group has formulated Corporate Citizenship Management Standards (CCMS), a set of guidelines for practicing corporate citizenship throughout the employees' work performance. The standards consist of 13 modules, including strategy, finance, quality, environment, safety, purchasing, and personnel. With the directions and cases of corporate citizenship for each module, CCMS present criteria for behavior and decision-making so that our employees can implement corporate citizenship and create practical results at work and in everyday lives. The Corporate Citizenship Practice Guidelines for Field workers, on the other hand, aim to better reflect the characteristics of the construction industry and help field workers easily participate in practicing corporate citizenship. The guidelines present the direction of on-site changes under four themes—open site, pleasant site, safe site, and reliable site—drawing active participation from field staff.



POSCO CCMS

Corporate citizenship practice tasks from the executives

In order to take the lead in practicing corporate citizenship from the top management, all executives actively carry out corporate citizenship practice tasks linked to their respective tasks. In 2020, they completed a total of 30 tasks under a variety of sustainable management themes, such as collaboration with suppliers, employee safety and health, and contribution to local communities. For each task, 10% was reflected in the relevant executive's KPIs, while we have raised the ratio for 2021 to 20% for more effective management.

Corporate citizenship practice discussions and idea contest

In 2020, POSCO E&C held discussions at each department to raise employees' awareness of participation and come up with various ideas to further promote corporate citizenship. After fully reading the CCMS, each employee submitted a "one person, one practice" idea that can make practical improvements in their daily life and work performance. The ideas were presented automatically to the POSCO Group Idea Contest, where employees with excellent ideas were rewarded as a way to motivate employees' participation and drive their active implementation of improvement ideas in their daily work and life.



Corporate Citizenship Quiz King

Corporate citizenship and ESG education

POSCO E&C operates various programs to enhance employees' understanding of corporate citizenship and ESG. In 2020, we implemented "Corporate Citizenship Outreach Program," a case-oriented program for 40 departments and sites. In preparation for the market environment in which the ESG demands of investment institutions and clients intensify, we offered ESG education to a total of 163 employees of business development group in 8 sessions. We also held a contact-less quiz program "Corporate Citizenship Quiz King" and awarded the Presidential commendation and prize money to the winners. Along with carrying out such a variety of programs, we will further upgrade our educational programs designed to raise employee's awareness and encourage their participation regarding corporate citizenship and ESG.

Internal and external communication to spread best practices

POSCO E&C also strengthened internal and external communication so that corporate citizenship practices and ESG-related activities do not end as a one-time event but are settled as best practices and spread in a sustainable form. We introduce our achievements in corporate citizenship as well as the latest ESG trends through the monthly newsletter "Corporate Citizenship NOW" published by our Corporate Citizenship Bureau. To share the best practices accumulated internally in a persuasive manner, we are promoting a best practice thesis publication project together with external experts. Along with a detailed analysis of best practices, the project is designed to derive environmental and social values as well as academic and theoretical implications. We are planning to publish the results of the commitment we are carrying with POSCO and POSCO Research Institute (POSRI) in academic journals and books by the end of 2021.

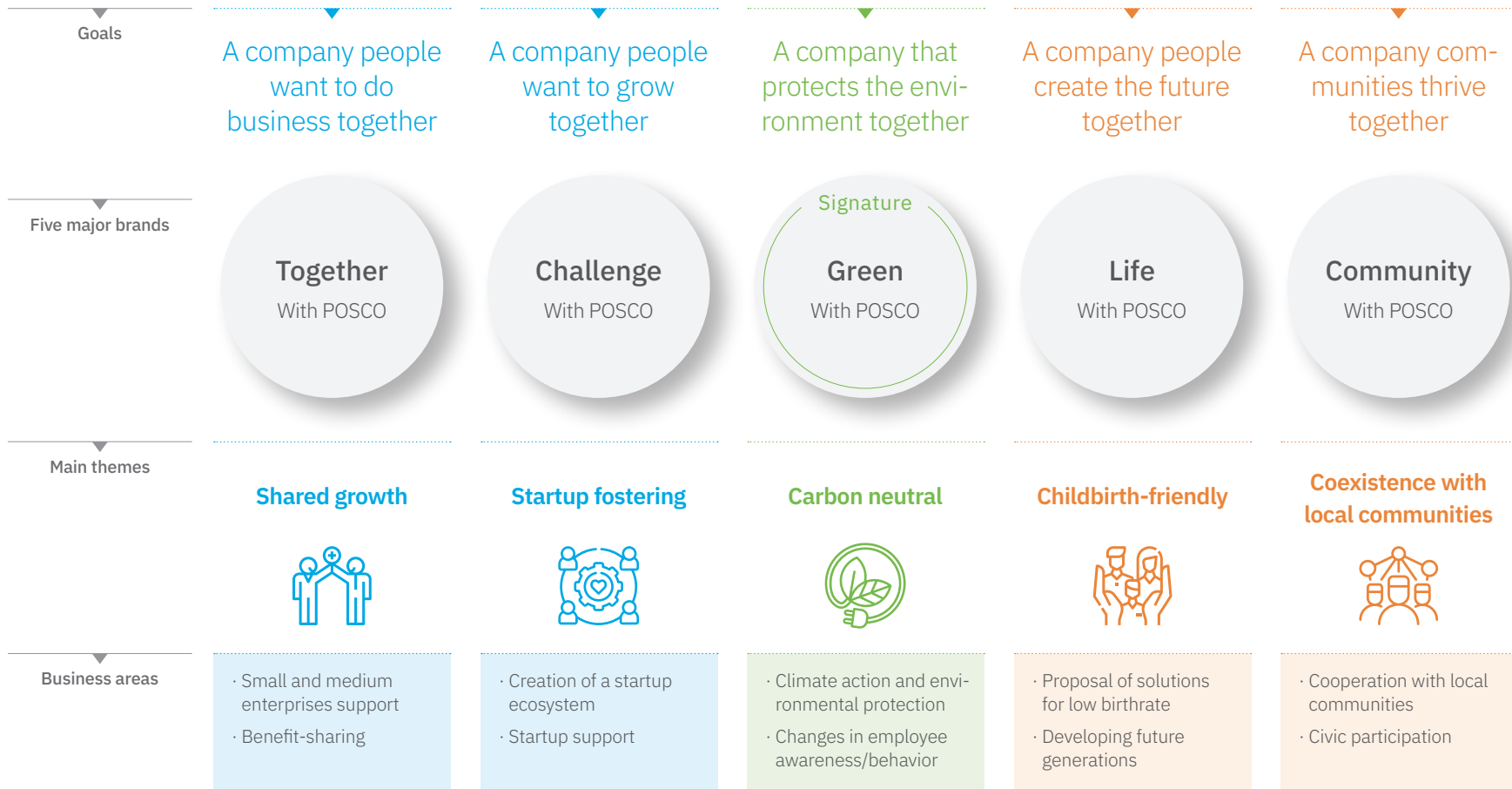
ESG Top Priorities and Responses

POSCO E&C identifies top priorities according to its ESG strategy and manages mid- to long-term quantitative goals systematically.

	Top priorities	Sustainable management goals	Key KPIs	Performance in 2020	Goals for 2023	Achievement
E	 Response to climate change	<ul style="list-style-type: none"> • Commitment to 2050 Carbon Negative • Conservation of biodiversity 	<ul style="list-style-type: none"> • Greenhouse gas (GHG) emissions • Waste recycling rate • On-site application of environmental technology package • Biodiversity-related amounts paid / No. of animal shelters supported 	47,882 tons 99.9% 10 cases KRW 10 million / 15 shelters	45,892 tons 99.9% 30 cases KRW 80 million / 100 shelters	   
	 Eco-friendly business	<ul style="list-style-type: none"> • Enhancement of eco-friendly portfolio 	<ul style="list-style-type: none"> • Amount of eco-friendly business order • Green financing ratio to total borrowings 	KRW 445.1 billion 23%	KRW 1.46 trillion 50%	 
S	 Safety and health	<ul style="list-style-type: none"> • A safe and pleasant workplace 	<ul style="list-style-type: none"> • Injury rate • Fatalities 	0.10% 2 persons	0.10% 0 person	 
	 Product responsibility	<ul style="list-style-type: none"> • Improving customer satisfaction with the best quality and service 	<ul style="list-style-type: none"> • Korean Standard Quality Excellence Index (KS-QEI) ranking • Korean Standard Well-being & Environment Index (KS-WEI) ranking • Enhancement of THE SHARP brand awareness • Smart construction application rate • Floor impact sound insulation performance 	1st 1st 5th 74% Grade 4	1st 1st 3rd 95% Securing Grade 2 or higher technology	    
	 Shared growth	<ul style="list-style-type: none"> • Shared growth through the establishment of a sustainable supply chain 	<ul style="list-style-type: none"> • Number of annual agreements • Amounts of eco-friendly products purchased • Amounts of financial support for suppliers (Shared Growth Fund) 	11 cases KRW 43 billion KRW 46.8 billion	30 cases KRW 150 billion KRW 50 billion	  
	 Local community	<ul style="list-style-type: none"> • Reinforcement of CSR in consideration of social and environmental impacts 	<ul style="list-style-type: none"> • Proportion of carbon-neutral CSR activities from an ESG perspective • Number of Collective Impact Design(CID) cases among group companies • Running total of overseas youth trained for skilled construction workers 	5% - 295 persons	30% 3 cases 895 persons	  
	 Employee	<ul style="list-style-type: none"> • Nurturing global good citizenship 	<ul style="list-style-type: none"> • Developing key talents of core technologies • Employment ratio of the disabled • Great Work Place (GWP) index 	30 persons 2.5% 84 points	70 persons+α 3.1%+α 87 points	  
G	 Risk management	<ul style="list-style-type: none"> • Advancement of ESG risk management system 	<ul style="list-style-type: none"> • Proportion of ESG review in project deliberation 	100%	100%	
	 Business ethics	<ul style="list-style-type: none"> • Instilling of fair trade culture 	<ul style="list-style-type: none"> • Employee training hours on fair trade and ethics • Korea Fair Trade Commission's CP rating 	15,851 hours Grade AA	18,000 hours Grade AA	 

Five Major Brands of Corporate Citizenship and Signature Businesses

POSCO Group operates the five major brands of corporate citizenship to systematically develop and spread its corporate citizenship management philosophy. Through the promotion of the brands, POSCO E&C intends to help solve our society's challenges while striving to grow into "a company people want to work with."



Based on POSCO Group's five major brands of corporate citizenship, POSCO E&C generated diverse performances in 2020 by developing and promoting various signature projects that fit the characteristics of the construction industry.

Together With POSCO

• Benefit-sharing system

Sharing benefits based on the enhancement of technical competitiveness and joint development and commercialization of field-required skills through technical cooperation with suppliers

25 ideas selected through technical cooperation contest

11 agreements signed for benefit sharing



• Innovative support groups for suppliers

Consulting support tailored to the needs of small and medium-sized suppliers by utilizing the capabilities by department and infrastructure, such as technology, safety, and environment, to bolster their capabilities

19 innovative support groups

Support provided to 184 suppliers

• Financial support system for suppliers

Operating a low-interest "Shared Growth Fund" to support suppliers in securing liquidity by means such as offering interest-free loan loans and early payment in cooperation with financial institutions

Shared Growth Fund KRW 46.8billion
Interest-free loan KRW 3.5billion

Challenge With POSCO

• In-house startup POSREGEN

Supporting the self-reliance of employees with creativity and challenging spirit and promoting diversification of the construction industry ecosystem

- Succeeded in developing low-carbon construction materials using ferronickel slag, one of the by-products of steelmaking, for the first time in Korea (supply contract signed with POSCO E&C)



• Next-generation construction startup competition

Holding Startup competition in the construction field as a startup support program to solve the youth unemployment problem by discovering new ideas and offering winning teams with startup support and move-in to the incubation center

Startup support provided to 6 teams

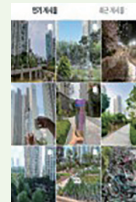


Green With POSCO

• Changes in employee awareness and lifestyles

Providing tumblers and shopping carts to all employees; implementing Disposable-free Building campaign; promoting Eco Life Challenge, a carbon-neutral practice among employees and residents living in THE SHARP; holding vertical marathon (taking stairs) and green walking (walking a lot) competitions; social media sharing event for eco-friendly practices by THE SHARP residents

Expected carbon reduction effect 1.9 tons/year



• Marine conservation project

Promoting various collaborative activities with the Korea Coast Guard, including idea contests to prevent marine pollution, awareness-raising campaigns, educational programs for the youth, and clean ocean volunteer program

Ideas submitted by the public 288 cases



Life With POSCO

• Childbirth/rearing-friendly system

Spreading a culture that protects maternity and allows both work and childrearing through various systems, such as support for infertility treatment, work-from-home system for the parental leave to prevent career discontinuity, and expansion of parental leave and daycare centers at workplace

Extended parental leave period 1 year → 2 years

Number of children at POKIDS daycare centers 134



• Training programs for overseas skilled construction workers

Operating youth training programs to develop skilled construction workers in developing countries, such as Myanmar, Indonesia, and Bangladesh, and hire outstanding trainees locally to contribute to self-reliance and job creation of the youth of local communities

Running total of overseas skilled construction workers 295 people

Community With POSCO

• Public art collaboration

- Holding exhibitions to support the independence of disabled artists (mouth and foot painters) and operating "Street Gallery" (Build Beautiful Place Together project) using on-site fences
- Promoting Steel Art Contest, a collaboration between small craftsmen and artists in Mullae-dong



• Urban regeneration projects

Participation in urban regeneration projects hosted by the MOLIT in collaboration with Uijeongbu City, Seoul Women's University, and Habitat for Humanity Korea to build living infrastructure and provide house repairs, senior care, and employment opportunities in areas with poor living conditions

• Animal welfare project

Conducting various projects for "creating a space where humans and animals coexist," such as dissemination of outdoor cat shelters and animal rescue projects in redeveloped areas in cooperation with non-governmental organizations (NGOs) and local governments

15 outdoor cat shelters installed

E S G ENVIRONMENTAL

Response to Climate Change

POSCO E&C recognizes the need for a strategy to respond to climate change in accordance with the establishment of a new global climate regime. To ensure our active participation according to the needs of various stakeholders and the international community, we devised the 2050 Carbon Negative strategy along with governance, risk management systems, and quantitative goals.

2050 Carbon Negative Strategy

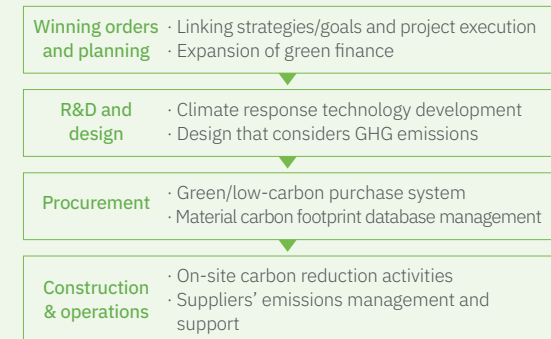


Carbon management organizations and governance system

POSCO E&C formed a carbon-neutral task force composed of in-house employees in charge of field. The team reviewed strategic directions for responding to climate change, identified key tasks, and came up with measures to reduce GHG emissions. POSCO E&C will further strengthen the R&R of the organizations in charge of climate response within the company. We will achieve company integrated management that responds to domestic and international changes in policies and the business environment. In addition, we plan to set up a Carbon Neutral Council composed of employees and stakeholders in a bid to raise awareness, increase engagement, and collect climate response ideas.

Process to manage climate change risks and opportunities

POSCO E&C established a management strategy by identifying risks and opportunities to respond to climate change and lead to improvement in business performance. Plans and achievements are reported to the management and the Board of Directors, with performance evaluation and results disclosed through CDP and corporate citizenship reports.

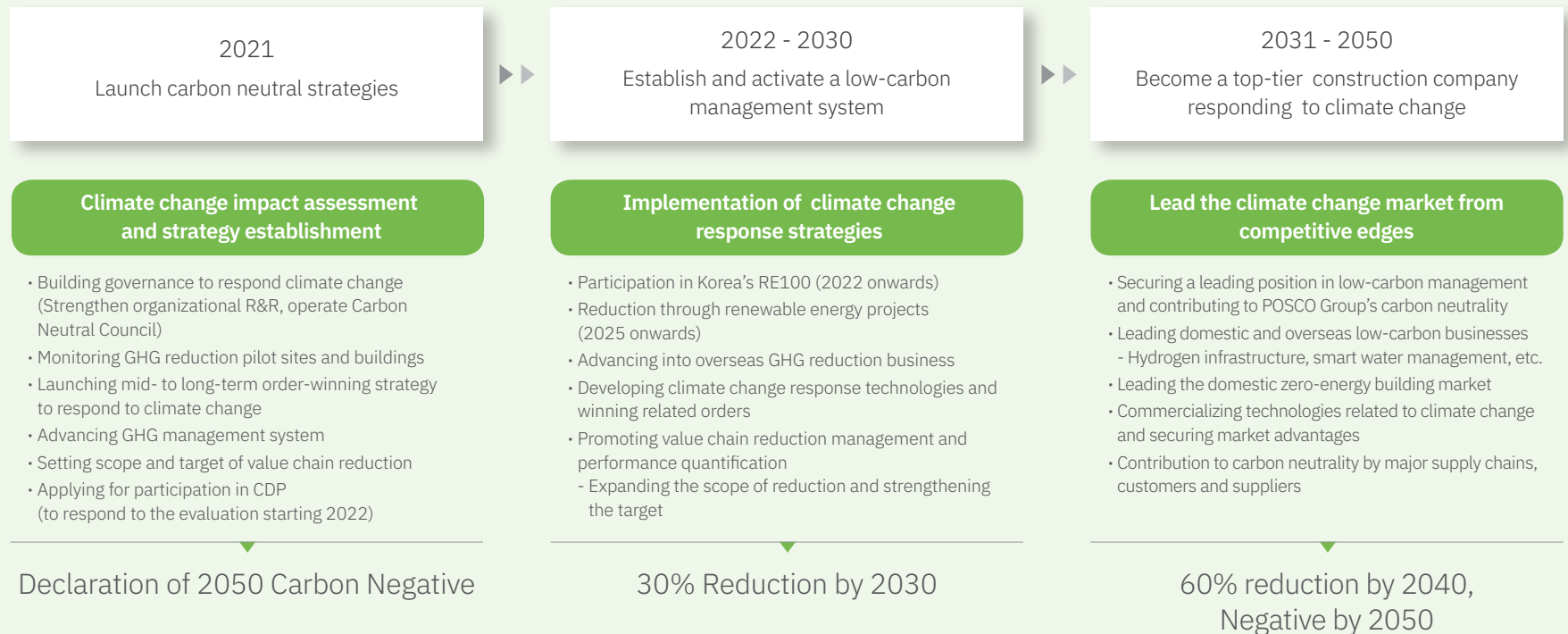


Mid- to Long-term GHG Reduction Roadmap

POSCO E&C established a mid- to long-term carbon-neutral roadmap to continue to carry out its climate change response strategies in a systematic manner. We also set up short-term and mid- to long-term goals and tasks to go carbon negative by 2050 and to reflect them in the company-wide business plan, with related activities and performances reported in detail through corporate citizenship reports.



Mid-to-Long-term Goal: To achieve Carbon Negative by 2050 and strengthen low-carbon portfolio



ESG ENVIRONMENTAL

GHG target management

Following the launch of the 2050 Carbon Negative strategy, POSCO E&C devised a scenario and a mid- to long-term roadmap to achieve GHG reduction by 2050. To this end, we expanded the extent of the reduction goals to include Scope 3 in addition to Scope 1 and 2, thereby contributing to carbon reduction by all stakeholders. We will further strengthen our GHG reduction management by upgrading our current GHG management system.

GHG reduction activities

POSCO E&C is carrying out GHG emissions reduction activities in various areas, including construction sites, vehicles, and buildings. At the construction sites, we practice energy conservation in processes that consume a huge amounts of energy. We are also expanding prefabrication construction using construction steel materials of POSCO and replacing bulbs with LEDs in field offices. We are getting ready to use modular-type on-site accommodation facilities and field offices powered by solar power. As for the vehicles, we have reduced 13 vehicles at our headquarters and replaced the rest with low-carbon hybrid vehicles. In addition, we contracted 15 compressed natural gas (CNG) commuter buses whose engine idling is prohibited. For the buildings, we are carrying out various energy conservation measures for our office buildings. We apply of temperature standards for heating and cooling and stricter rules on turning off lights overnight, thus contributing to our efforts to reducing GHG emissions through our everyday efforts.

CNG buses' contribution to carbon reduction compared to the previous year

Average reduction of 3,091 kg/month

Prohibition of engine idling of commuter buses

Average reduction of 2,250 kg/month

(Carbon emissions from an idling bus: 170 g/min)



Agreement on voluntary GHG emissions reduction

POSCO E&C signed a memorandum of understanding (MoU) with the Ministry of Land, Infrastructure and Transport (MOLIT) and the Korea Real Estate Board (REB) to voluntarily reduce GHG emissions in the construction sector. Although we may not be subject to the GHG & Energy Target Management System, we intend to preemptively reduce emissions by improving our GHG calculation system and applying the best reduction practices possible in the construction industry. By partnering with small and medium-sized suppliers suffering from a shortage of manpower and systems to manage GHG emissions, we will develop technologies that will reduce energy consumption and GHG emissions, thereby contributing to energy conservation of suppliers and the company's cut down of GHG emissions of POSCO E&C.



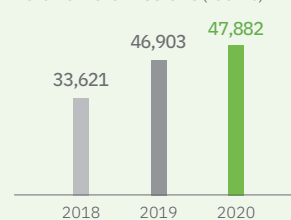
Introducing eco-friendly work clothes made from recycled plastic bottles

As part of our contributions to GHG reduction and resource circulation, POSCO E&C signed an MoU with Hyungji Elite (production/supply of work clothes) and TK Chemical (production/supply of recycled fibers) to introduce "eco-friendly work clothes made from locally recycled plastic bottles (K-rPET)." Through the agreement, we plan to produce a total of 7,000 sets of eco-friendly work clothes from about 75,000 recycled transparent plastic bottles (500 ml). This will reduce 4.5 tons of carbon emissions compared to those when plastic bottles are incinerated. Furthermore, we plan to launch a campaign of collecting and upcycling transparent plastic bottles among our employees to contribute to stabilizing the domestic resource circulation system—from the collection of domestic waste plastic bottles to the production of textiles and manufacture of work clothes.

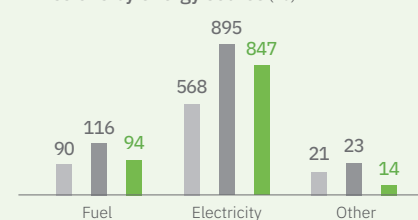
Disposable-free Building campaign

As a corporate citizen, POSCO E&C carries out the Disposable-free Building campaign in efforts to concur with the global climate crisis and encourage employees' active participation in ESG management. We are working hard to reduce carbon footprint at work and in everyday lives and establish an eco-friendly organizational culture through various programs. The top management delivered carbon-neutral implementation messages via in-house broadcasts and we provided our employees with reusable products such as tumblers and held a free coffee promotion for those who use tumblers.

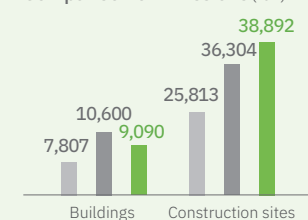
Total GHG emissions (tCO₂-e)



Emissions by energy source (TJ)

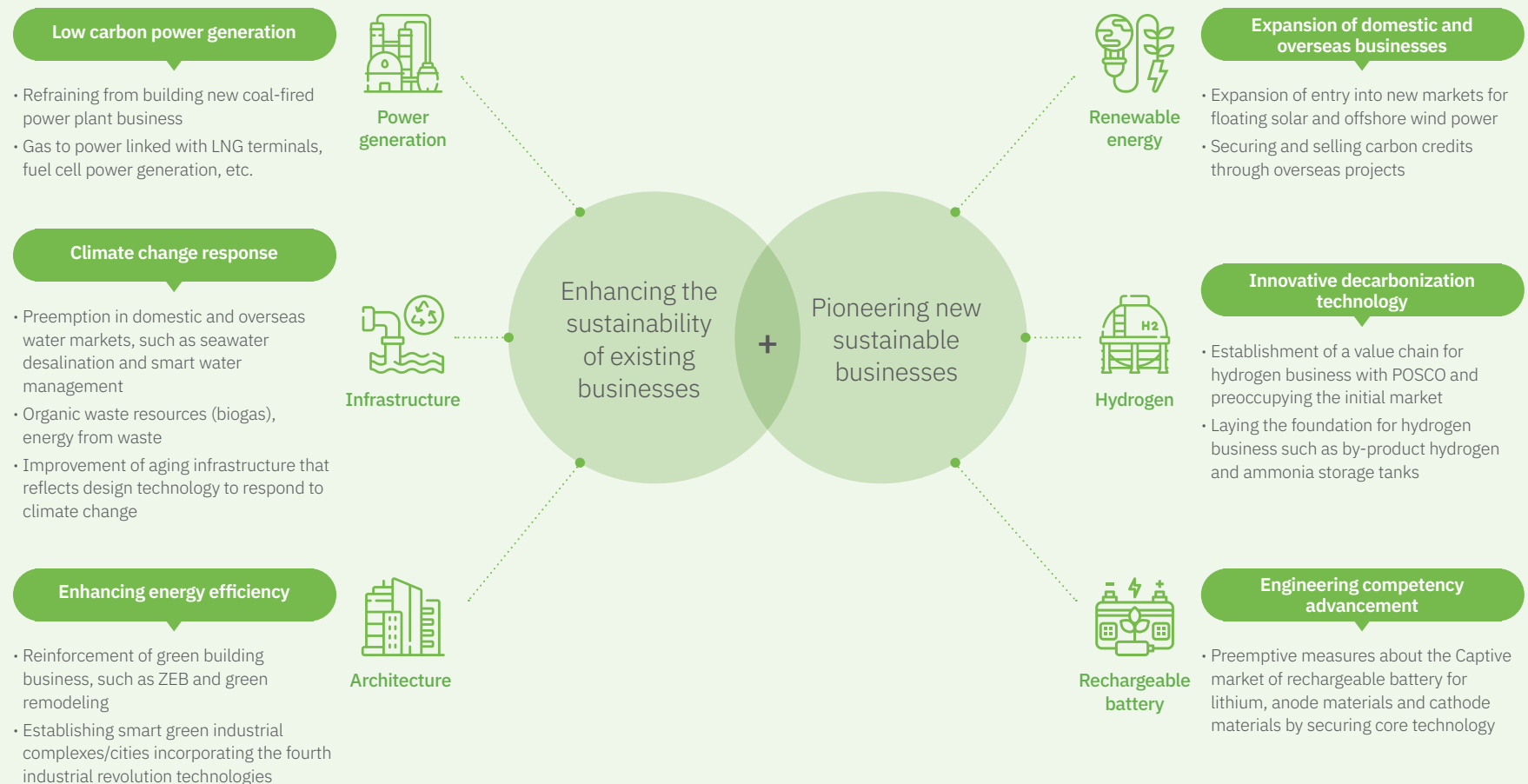


Comparison of Emissions (ton)



Low-carbon Business Strategy

POSCO E&C intends to transform into a low-carbon business through 1.5°C scenario analysis as a way to strengthen its competitiveness in the new climate regime: We aim to pioneer new businesses with high sustainability, such as renewable energy and hydrogen, while enhancing the sustainability of our existing businesses, including plants, infrastructure, and architecture, to turn climate crisis into an opportunity for strengthening our global competitiveness and lead the future construction market. To this end, we plan to strengthen our R&D activities related to climate change response projects and utilize green finance available for low-carbon, eco-friendly projects to expand our involvement in new and overseas businesses related to climate change.

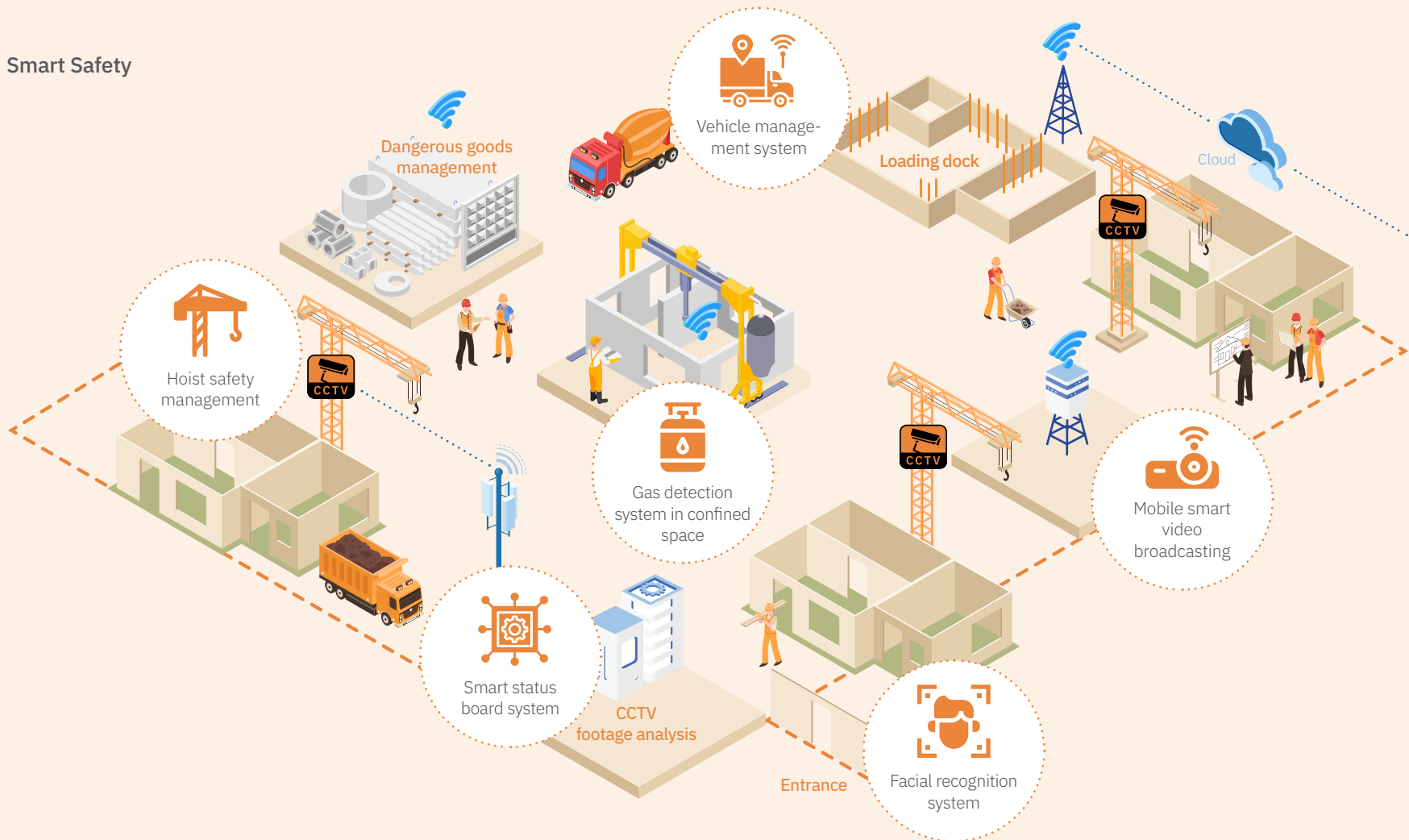


ESG SOCIAL

Establishment of Smart Safety Solutions

Intending to achieve zero serious accidents and meet the social demands for safety management, POSCO E&C utilizes information technologies to pursue systematic management of blind spots that are difficult to observe with naked eye. As the era of the fourth industrial revolution has dawned, a paradigm shift in construction is progressing toward Smart Construction. Therefore, in order to adapt to the changes and secure competitiveness in the current construction market, contractors must make innovation in their construction technologies. As a response, we established smart safety solutions to create a safe working environment for workers through an integrated safety management system using intelligent Internet of Things (IoT).

Smart Safety



Smart safety solutions are a set of advanced systems applied with the IoT-based smart technologies to identify on-site risk factors and take safety measures in real time. They consist of diverse technologies ranging from contact-less access management and smart video equipment operations to safety measures for hoists and openings and fire/suffocation prevention measures. In recognition of the solutions' excellent performance at the Gunsan The Oceancity THE SHARP public housing complex, we won an award (1st place) from the Minister of Land, Infrastructure and Transport at the Smart Construction Tech & Safety 2020.



Facial recognition system



- Registration of all workers on site
- Recognition of whether workers wear safety helmets, real-time registration of access status, and confirmation via smartphone

Smart status board system



- Displaying notices on large LED status boards
- Real-time check of worker/equipment access status, weather, and work progress

Opening management



- Mounting shielded sensors in openings with the risk of falling
- Sending warnings when openings are opened/closed arbitrarily

Mobile smart video broadcasting



- Easy wireless installation and real-time monitoring through mobile phones

Hoist safety management



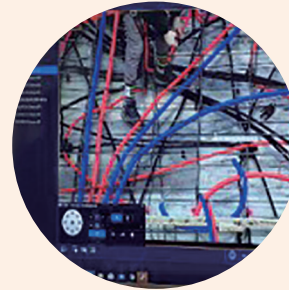
- Remote operation and real-time monitoring of hoist operations
- Emergency alerts and prompt action in case of anomalies

Gas detection system in confined space



- Installing gas detectors in confined spaces and sending alarms
- Automatic operation of fans upon detection of anomaly for the inflow of outside air

Tower crane footage/broadcast



- Real-time control via security cameras installed on tower cranes
- Prompt message dissemination through tower crane-based broadcasting for the entire site

Vehicle management system



- Real-time departure management of on-site vehicles
- Datafication through real-time registration of equipment entry/exit and collection/analysis of quantity information

ESG GOVERNANCE

Sustainable Corporate Governance

Strengthening the Corporate Citizenship Council

Since February 2020, POSCO E&C has been operating a consultative body in which all executives participate to discuss and make decisions on material issues related to corporate citizenship and ESG. In 2021, we hired three external experts as advisors of the council to share external trends and ensure professionalism and objectivity.

Corporate Citizenship Council Details

• Members

39 (including the President, heads of divisions, heads of offices, executive-level heads of teams, and advisors)

• Meeting frequency

Quarterly (3 times in 2020, including 1 contact-less meeting due to COVID-19)

• Composition of advisors

3 experts on environmental, corporate governance, construction industry

• Meetings held

February 2020	Announcement of corporate citizenship practice strategies and slogan (Build Value Together)
July 2020	Review of performance of the Council and each executive in the first half
November 2020	Performances in 2020 and plans for 2021
March 2021	Corporate citizenship practice strategies from the ESG perspective by division/center
June 2021	Promotion strategies for the 2050 Carbon Negative

ESG risk management

Large amounts of funds are being invested across the world to respond to the climate crisis and achieve SDGs. Domestic and overseas organizations, including the Ministry of Environment of Korea, the EU, and the Climate Bonds Initiative have enacted an eco-friendly taxonomy to use it as a criterion for identifying green activities. On the other hand, it is also necessary to promote a pro-social business that responds to the heightened corporate social responsibility to enhance the sustainability in business. Therefore, POSCO E&C reviews all ESG-related matters involved in an entire project from winning orders to the maintenance stage. This ensures that the management makes critical decisions more effectively while monitoring all ESG-related risks and opportunities throughout the project lifecycle and thus carry out integrated ESG management. We will seek to expand our involvement in eco-friendly and social projects while strengthening our sustainable business portfolio.

Risk Review

In the project deliberation stage, the ESG evaluation score calculated according to the following four criteria is reflected in the “project soundness evaluation” and “restrictions on assumptions.”

Objectification

Apply the taxonomy and the classification criteria of domestic and overseas evaluation agencies to determine the sustainable business type “eco-friendly/pro-social business.”

Specification

Minimize each business unit’s risk review omissions by introducing an [ESG checklist at the winning order stage](#) to identify risks with high likelihood and opportunities.

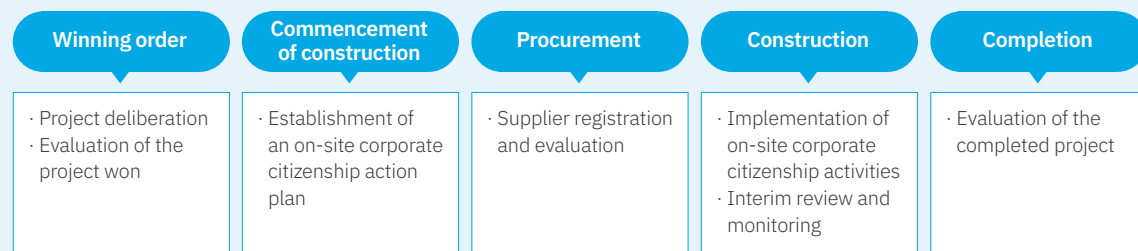
Scoring

Quantify evaluation results according to risks involved with business type and business unit.

Effectiveness

Secure effectiveness by reflecting [ESG evaluation scores](#) in the risk management processes: “project soundness evaluation” and “restrictions on assumptions.”

ESG review according to project lifecycle





Expansion of Green Financing

First among Korean contractors to issue overseas ESG bonds

As ESG investment demand has rapidly increased, opportunities for companies to issue ESG bonds are expanding. In 2020, POSCO E&C became the first Korean construction company to issue overseas ESG bonds worth KRW 120 billion with the certification of Sustainalytics. In 2021, upon gaining the highest grade from the Korea Investors Service, we issued ESG bonds worth KRW 140 billion in Korea, thus raising the transparency of bonds and investors' confidence in us.






Execution of ESG derivatives contract

POSCO E&C was Korea's first company to sign an ESG derivatives contract with Standard Chartered (SC) Bank Korea and France's Society General Bank, which added an ESG activity target as an incentive to futures exchange related to the Warsaw Waste-to-Energy project in Poland, which was ordered in 2020. Through the contract, we can receive incentives as long as we achieve the goals of reducing GHG and obtaining a green building certification (Green Standard for Energy and Environmental Design, G-SEED) in the existing futures exchange contract. In addition, POSCO E&C and SC Bank Korea signed an MoU on ESG finance and agreed to carry out strategic collaboration on policies and measures to build an ESG financial ecosystem, such as trade finance and green loan.

Execution of ESG finance agreement

POSCO E&C signed a strategic business agreement for ESG business revitalization with Woori Bank to receive credit and preferential interest rates for ESG-related construction projects, which include new and renewable energy and eco-friendly businesses. Furthermore, based on our agreements to develop mobile financial products and win-win payment systems for our employees and small and medium-sized suppliers, we are leading the way in creating eco-friendly and social values.

Our plans for using ESG bond funds

Classification	Socio-economic development and capacity building 	Eco-friendly buildings 	Support for SMEs 		Green transportation 	Support for the underprivileged 
Supported projects	Early payment for small and medium-sized suppliers	Acquisition of Green-2 grade in G-SEED	Shared Growth Fund	Benefit sharing system	Sinansan Railway Project	Support for businesses hiring the disabled
Project overview	Support for small and medium-sized suppliers	Songdo THE SHARP Centennial and 2 other projects	Preferential loan interest rates for suppliers	New contracts through technology development with suppliers	Railroad facility equity investment to reduce carbon emissions	POSCO HUMANS
Amount	KRW 110 Bn	KRW 101.7 Bn	KRW 23.4 Bn	KRW 10.2 Bn	KRW 7.9 Bn	KRW 3.1 Bn



Signing of an MoU between POSCO E&C and SC Bank Korea

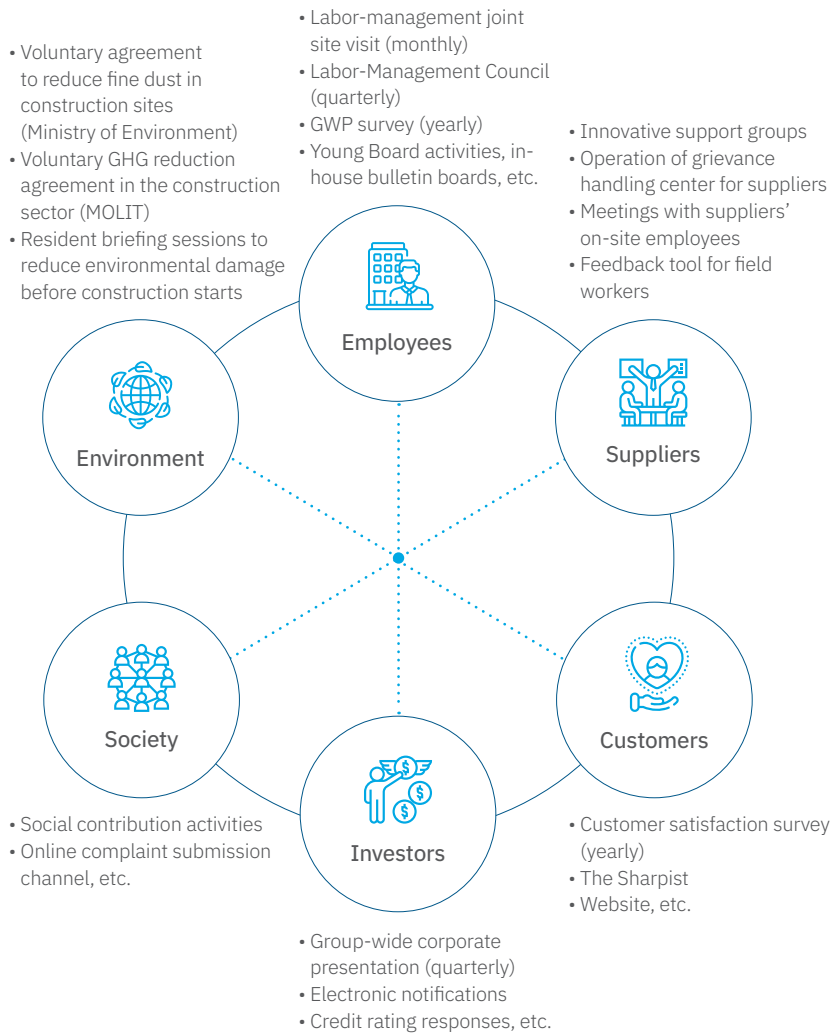


Signing of an MoU between POSCO E&C and Woori Bank

Stakeholder Engagement

POSCO E&C classifies stakeholders that either directly or indirectly affect the company into six major groups: employees, suppliers, customers, investors, society, and the environment. We collect their opinions through various communication channels to reflect their needs in our business activities.

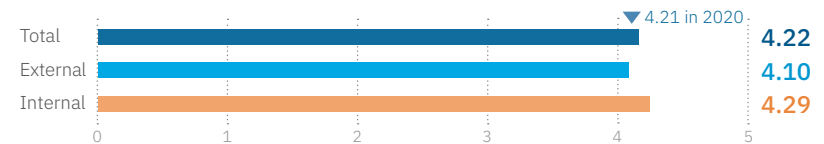
Stakeholder Communication Channels



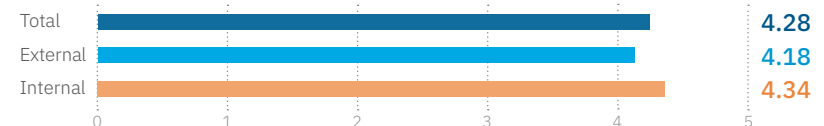
Stakeholder's awareness of sustainability management

(*Unit: points, out of 5)

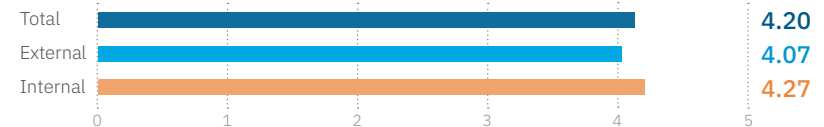
Q. Do you think POSCO E&C, as a corporate citizen, is fulfilling its environmental and social responsibilities in addition to its corporate growth?



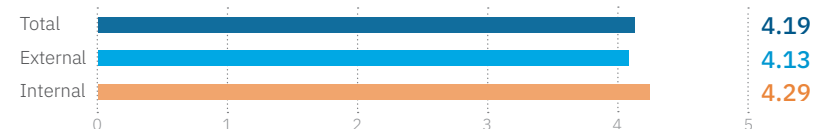
Q. [B: Business] Do you think POSCO E&C is striving to practice ethical management and provide reliable products and services for mutual growth with its business partners, such as customers, and suppliers?



Q. [S: Society] Do you think that POSCO E&C is actively making efforts to pursue the prosperity of local communities and neighbors and reduce the environmental impact of its projects?

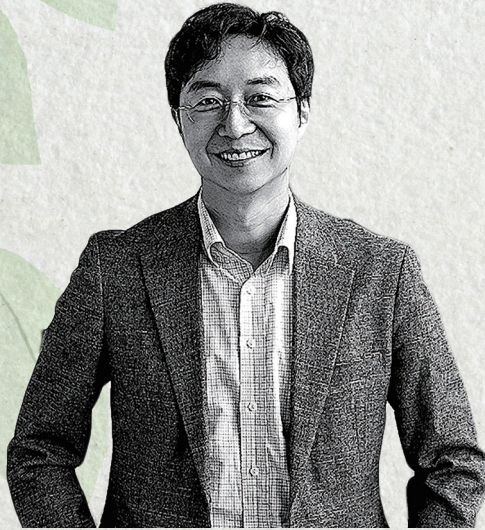


Q. [P: Employee] Do you think POSCO E&C respects its employees and strives to create a safe working environment for them?



Interviews with Experts

POSCO E&C conducted interviews with experts in various fields intending to find a new direction that it has to pursue in the ESG management environment that is emerging as a new topic of discussion across the world. By actively listening to their opinions, we will further strengthen our ability to perform efficiently as “a corporate citizen that builds a better future together.”



Yoo Hyun-joon, Professor of Hongik University

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My suggestion for POSCO E&C is to make various attempts for sustainable urban development. For eco-friendly construction, POSCO E&C can adopt a column-type structure that can be transformed according to consumers' lifestyles without breaking walls instead of the existing wall-type structure. It would also be better to change the focus from cement and steel frame-oriented buildings to wooden structures to reduce carbon emissions. In the post-COVID-19 era, private outdoor space will become more important, and it should be a good idea to expand the terrace space and diversify the louver design to control the amount of sunlight. In addition, I think it is crucial to introduce the concept of an “indoor farm” in preparation for food shortages due to abnormal weather. In fact, a U.S. company has innovatively saved water by sprinkling water directly on the roots of plants.

Rather than the current reconstruction prototype concentrated on large-scale apartment complexes, it would be better to build new kinds of small apartment complexes with a variety of architectural designs and floor plans among others. Before introducing a new product, companies usually conduct surveys, and if consumers prefer the existing one over the new one at the rate of 51% against 49%, for instance, they choose not to change. I don't think a majority is always right. The new concept that received 49% of consumers' support had not existed in the market as a product. It has the potential to dominate the market. I hope that POSCO E&C takes on new challenges.

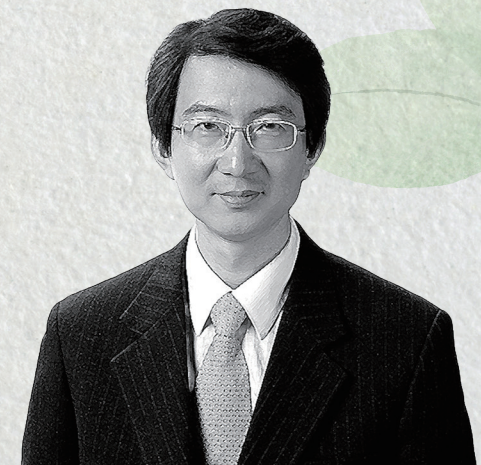
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The domestic construction industry is highly likely to maintain a maturity phase in the industrial lifecycle until the early 2030s, and then enter a phase of gradual decline thereafter. In order to become a sustainable company, it will require more importance for a company to secure its economic sustainability while enhancing its social and environmental sustainability at the same time. In the latter half of the maturity stage, price competition will intensify, and to avoid getting involved in the game of price competition, a company needs to become a demand-generating company. Recent studies show that sustainability management is directly related to a company's long-term value increase.

In this respect, it is very positive that POSCO E&C is making practical efforts to expand its sustainability management. I believe that it is important to make efforts at all construction sites to actually improve their sustainability management performance. One of the examples would be establishing and managing corporate citizenship action plans at the level of construction sites using the CCMS, a guide to their unique corporate citizenship. Lastly, it is also important to develop KPIs that measure sustainability management performance at both company-wide and departmental levels, evaluate the results, and provide feedback on the company's sustainability management activities on a regular basis.

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Lee Hong-il, Commissioner of Construction and Economy Research Institute of Korea



Park Jeong-ho, Director of KB Securities

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With the advent of the ESG era, investors consider non-financial factors comprehensively when evaluating companies, moving away from the traditional financial factor-oriented analysis. Companies that grow along with their stakeholders, including customers, employees, partners, and local communities, are evaluated as those with high future value, rather than firms that are focused only on profit-making activities.

POSCO E&C is striving to take the lead in environmental improvements, such as contributing to efficient energy consumption and GHG emissions reduction through eco-friendly construction. In March 2021, it financed the construction of green buildings through the issuance of ESG bonds while positively impacting the enhancement of social value by deciding to pay small and medium-sized suppliers early. From an investor's point of view, I hope that POSCO E&C will continue expanding its ESG management activities and faithfully fulfill its role as “a corporate citizen that builds a better future together,” which is the management philosophy of POSCO Group.

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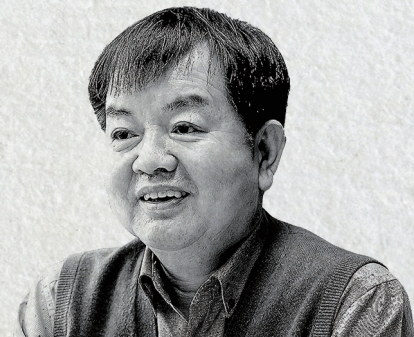
In the field of social innovation that addresses social issues in new and effective ways, society has continued to emphasize key topics such as environment health, economic inequality, and revitalization of local communities, of which importance is increasing with the spread of COVID-19. These social issues are directly linked to housing and the environment so it is expected that experts in the relevant fields can join forces to find a clue to solving the issues. Through an urban regeneration project that was launched last year through public-private-academia partnership (Seoul Women's University, Uijeongbu City Government, Habitat for Humanity Korea, and POSCO E&C), I witnessed POSCO E&C's sincerity and capability to contribute to social innovation throughout its business performance and partnerships.

I have watched students present innovative ideas and make improvements on them through a public-private-academia partnership platform as a way to participate in social change, which has reminded me of the “bee and tree” theory in which bees work diligently around a tree to make their flowers bloom and bear fruit. If POSCO E&C participates in social innovation through partnerships with various stakeholders, such as local governments, residents, non-profit organizations, and universities, the company will continue to grow as a respected company that puts its management philosophy of corporate citizenship into practice.

”



Yoon Su-jin, Professor of Center for Social Innovation Education, Seoul Women's University



“

Oh Ki-chul, Executive Director of Green Asia Network

In construction and infrastructure, following the inauguration of the Biden administration, the United States, China, and the EU are starting a competition for leadership in urban redesign centered on green buildings, green cities, green ports, recycling cities, smart grids, to achieve decarbonization, GHG reduction, and climate change adaptation. Its future exists only when the construction industry participates in this leading trend and obtains qualifications. In that sense, the industry must carefully prepare and invest in a roadmap for urban redesign centered on decarbonization.

In the post-COVID-19 era, the destruction of the forest ecosystem and the occurrence of new infectious diseases due to the climate crisis are predicted, so POSCO E&C needs to have a keen interest in addressing the climate crisis and restoring the forest ecosystem in particular. As an external stakeholder, I believe that, in order to secure corporate sustainability, POSCO E&C needs to align its ESG management with the global trend rather than following the domestic trend.

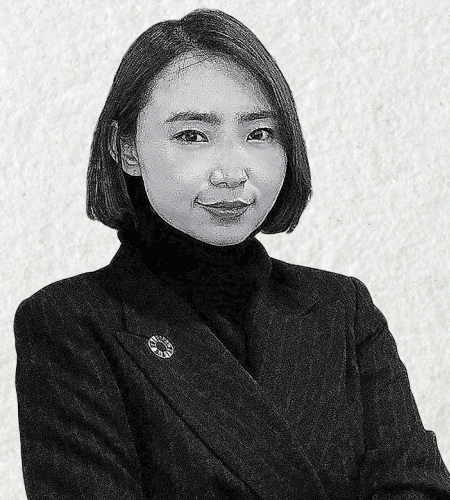
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About 130 governments and 1,100 companies that account for more than 60% of global GHG emissions have declared net zero, and there is a strong movement to informatize climate change in a standardized form, such as TCFD and EU Taxonomy, and companies are responding to the change quickly. Over the past decade, legalization of human rights and anti-corruption issues has been strengthened worldwide; leading companies have been making full-fledged efforts to establish BoD-centered governance to internalize ESG management, manage and respond to integrated ESG risks, and establish and disclose their goals in line with global standards.

POSCO E&C is a global general contractor carrying out various projects in various fields, including plant, infrastructure, and architecture, in 28 countries around the world. I think that as such, the company has a wide range of both corporate influence and management areas. In addition to responding to the amendment of the Financial Investment Services and Capital Markets Act, it seems that the company needs to make a lot of effort to develop female managers and executives, along with expanding BoD diversity and governance to internalize ESG. As ESG disclosure is also becoming increasingly important, I hope that POSCO E&C will continue to monitor its ESG performance and make improvements through transparent data management and mid/long-term goal setting.

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Lee Eun-kyung, Chief of UN Global Compact Network Korea

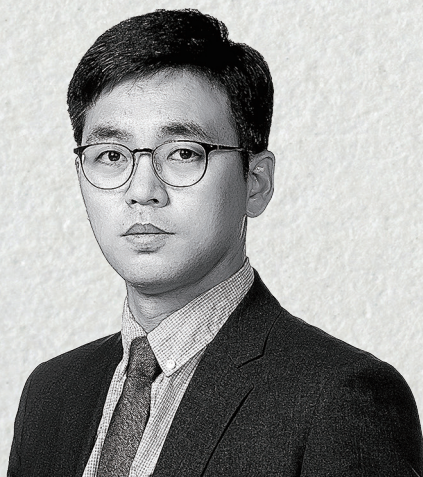
Interview

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In terms of governance, the demand for BoD diversity is growing worldwide. In order to preemptively respond to such changes in the market environment, POSCO E&C may consider appointing a female director to its BoD. Moreover, to enhance the effectiveness of BoD activities, demand continues to rise for the evaluation of its activities and the disclosure of the results. Accordingly, it looks desirable for POSCO E&C to establish its BoD performance evaluation criteria and seek continuous improvements in the effectiveness of its BoD operations through objective evaluations.

More and more companies are seeking to issue ESG bonds, and with private equity funds (PEFs) reflecting companies' ESG performance in their investment decisions, there is a growing demand for ESG information disclosure on unlisted companies as well. Judging from the current situation, unlisted companies need to consider ESG evaluation. As such, POSCO E&C needs to diagnose its ESG activities objectively based on “corporate citizenship” and recognize the ESG evaluation as a process for seeking improvements in its corporate performance. Also, to increase the effectiveness of evaluation, it is crucial to provide information on its ESG management plan and performance as well as the promotion of mutual understanding through regular communication with evaluation agencies.

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Yoon Jin-soo, Chief Analyst and Head at Korea Corporate Governance Service

Materiality Assessment

POSCO E&C conducted a materiality assessment to identify material issues that should be prioritized. We derived a pool of ESG risks surrounding the company based on a stakeholder survey, analysis of international ESG standards, media analysis, and benchmarking analysis. We adopted the materiality assessment from the investor's perspective to identify risk and opportunity factors for material issues and included the details of relevant activities and performances in this Corporate Citizenship Report. From the pool of 18 issues, we have identified nine material issues as shown below.

[Step 1] Forming a pool of material issues

Identification of a list of issues by conducting corporate status analysis and environmental analysis (media analysis, benchmarking, international standards) to form a pool of issues centered on international ESG standards and evaluations.

[Step 2-1] Likelihood analysis

Likelihood identification of risks by analyzing issues that may be required or generated in the internal and external environment surrounding the company.

- Analysis of media risks, internal response, and stakeholder awareness

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[Step 2-2] Impact analysis

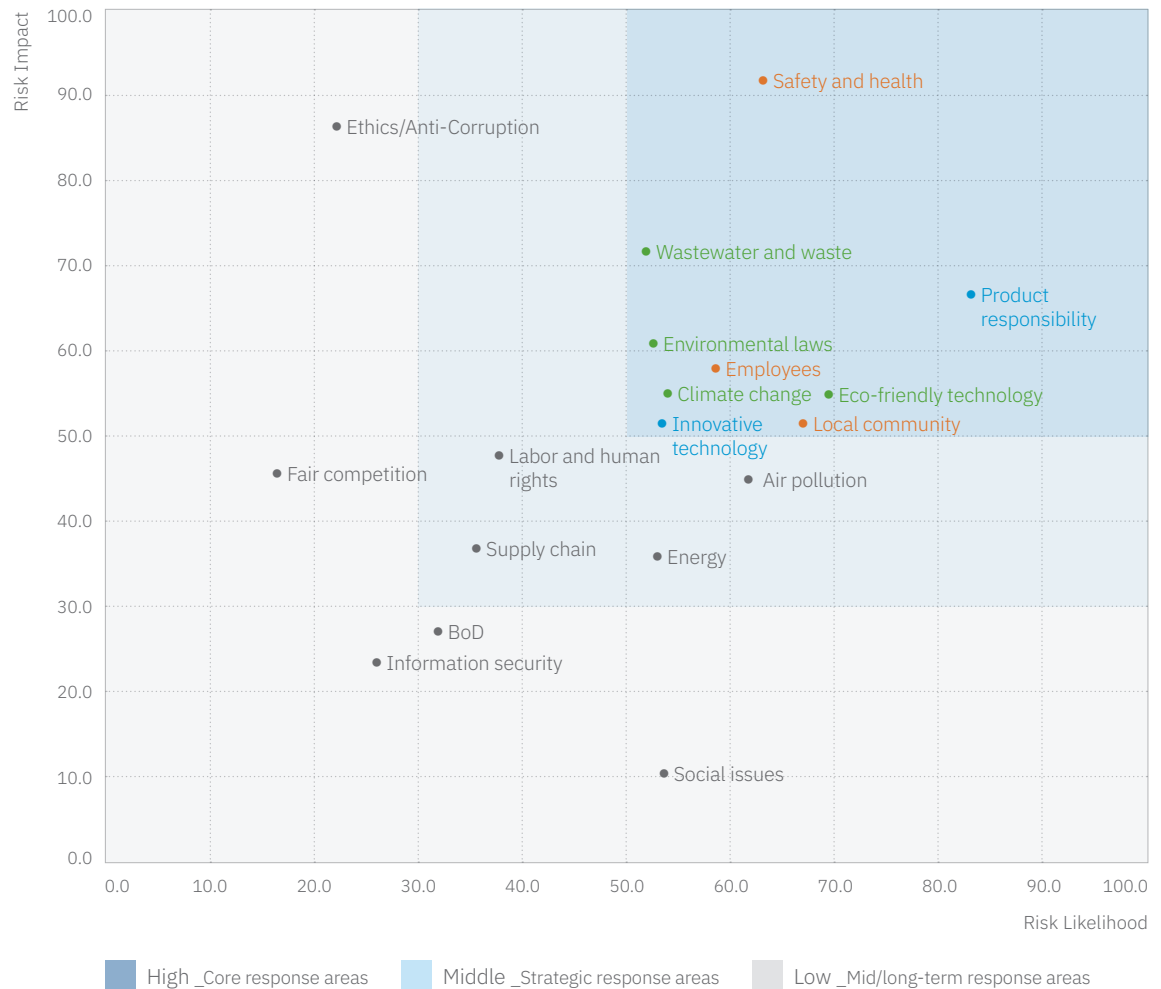
Identification of risk impact by analyzing issues and relative evaluation factors that may affect corporate valuation.

- Analysis of international ESG standards, industry peers, and stakeholder awareness

[Step 3] Selection of material topics

Establishment of response strategies for each area by deriving a materiality matrix based on the analysis results of the risk likelihood (X-axis) and risk impact (Y-axis) of each topic.

Materiality Matrix 2020



Material Issue Management













Core response areas	ESG material issues	Likelihood	Impact	Relevant stakeholders	Risk & opportunity factors from stakeholders' perspective	POSCO E&C's response	Page
	 Safety and health			Suppliers and employees	<ul style="list-style-type: none"> · Rising social interest in safety and health following the enactment of the Serious Accident Punishment Act and the outbreak of infectious diseases · Risk of accidents among employees, including those of suppliers, in construction sites 	Safe workplace	24~25, 68
	 Product responsibility			Customers, suppliers, and employees	<ul style="list-style-type: none"> · Deterioration of brand value and corporate image due to poor construction and defects · Necessity to select products based on quality and environment rather than bidding prices · Discovering excellent suppliers and strengthening their capabilities 	Best (product and service) quality for customer satisfaction	44
	 Wastewater and waste			Suppliers and employees	<ul style="list-style-type: none"> · Preemptive response to social issues, such as illegal disposal of construction waste and wastewater · Generating added value through eco-friendly treatment and active recycling of construction waste and wastewater 	Eco-friendly construction culture	50
	 Eco-friendly technology			Customers, suppliers, employees, government, and investors	<ul style="list-style-type: none"> · Loss of business opportunities due to insufficient technological development in the expanding green business market · Increased number of orders and corporate value through preemption of eco-friendly technologies for new and renewable energies, power generation, and hydrogen projects 		
	 Employees			Suppliers, employees, government, and investors	<ul style="list-style-type: none"> · Reinforcement of labor laws, such as the introduction of the 52-hour workweek and increasing social awareness of human rights violations and abuse of power · Reinforcement of employee competency and employment of professional technical manpower in response to continuous changes in the business environment 	Happy employees	74
	 Environmental laws			Suppliers, employees, government and investors	<ul style="list-style-type: none"> · Increased cost burdens due to strengthening environmental regulations, such as carbon border tax, government review of the carbon tax, and disposal cost sharing program · Voluntary and active responses to strengthened environmental policies and laws 	Eco-friendly construction culture	50
	 Local community			Residents, suppliers, and employees	<ul style="list-style-type: none"> · Increasing demand for corporate social responsibility for environmental and social issues occurring at construction sites · Contribution to regional development by solving problems in the local community 	Sharing value with the community	62
	 Climate change			Residents, employees, government, investors, and suppliers	<ul style="list-style-type: none"> · Strengthening regulations and policies for the transition to a low-carbon economy and carbon-neutral society · Expansion of markets for new and renewable energies, power generation, and hydrogen projects in accordance with government-led Green New Deal investments 	Response to Climate Change	20
	 Innovative technology			Employees, suppliers, government, and investors	<ul style="list-style-type: none"> · Domestic construction market stagnation and intensifying price-oriented competition in the market · Securing differentiated competitiveness by enhancing productivity through digital transformation technology 	Digital Transformation	38















 Environment
  Social
  Business

· Likelihood and impact assessment:  High
  Medium
  Low

Our Implementation of ESG and UN SDGs

The UN SDGs refer to 17 goals proposed by the UN to solve global social issues and thus achieve sustainable development. POSCO E&C has classified SDGs according to its business areas and carries out detailed activities accordingly. We seek to help solve economic, environmental, and social problems that the world faces by achieving the UN SDGs along with carrying out our major steel and plant projects and social contribution activities.

Category	Areas of focus	Goals		Activities	Page	
ECONOMIC & ENVIRONMENTAL	Innovative Construction Technology		· Promote sustainable economic growth and decent work	· Application of building information modeling (BIM), pre-construction, and prefabrication and establishment of a digital construction platform (DCP)	41	
			· Build resilient social infrastructure and promote sustainable industrialization	· Establishment of digital transformation (DT) master plan, cultivating company-wide DT manpower, and introduction of a simple invitation to bid (ITB) analysis system	40	
	Best Quality and Customer Satisfaction		· Build resilient social infrastructure and promote sustainable industrialization	· Expansion of 8 types of advanced specialized equipment, the introduction of an intelligent quality control system, and improvement in the defect response process	46	
			· Safe and resilient cities and dwellings	· Development of customer service All-Heart Lounge mobile app and launch of a TF for responding to floor impact noises	47	
	Green Construction		· Sustainable management of drinking water and sanitation facilities	· Installation of anti-fouling net and adoption of wheel-washing water reuse technology at construction sites	52	
			· Ensure sustainable energy	· Advancement into new offshore wind power markets and securing and selling GHG reduction credits	22	
			· Sustainable consumption and production	· Expanded recycling of waste, including construction waste, waste wood, and waste boards	53	
			· Urgent response to climate change and its impacts	· Declaration of 2050 Carbon Negative, a mid- to long-term strategy to respond to climate change · Development and use of an eco-friendly dust reduction agents to improve air quality	20	
	SOCIAL	Sustainable supply chain		· Promote sustainable economic growth and decent work	· Distribution of the Supplier Code of Conduct and implementation of a supplier registration/evaluation system · Operation of innovative support groups and a financial support system for suppliers	57
				· Build resilient social infrastructure and promote sustainable industrialization	· Implementation of five major brands for shared growth, including the expansion of a win-win-based bidding system and the benefit-sharing system	59
			· Sustainable consumption and production	· Purchasing eco-friendly materials and procurement from socially friendly companies	58	
Sharing value with the community			· Ensure inclusive and equitable quality education and promote life-long learning opportunities	· Education support through volunteer activities at Incheon regional children's center One&One, and Dream Tree Scholarships for teenagers	65	
			· Promote sustainable economic growth and decent work	· Support for employment and startups through training programs for overseas skilled construction workers, job mentoring to support youth employment, etc.	66	

Category	Areas of focus	Goals		Activities	Page
SOCIAL	Sharing value with the community		· Safe and resilient cities and dwellings	· Carrying out fire prevention and residential environment improvement activities, senior safety keeper activities, and local fire-fighting base activities	64
			· Protect sea and marine resources for sustainable development	· Holding idea contests to prevent marine pollution and clean ocean volunteer program	67
	Safe workplace		· Ensure healthy lives and promote well-being for all	· On-site safety and health support in accordance with the Occupational Safety and Health Act	73
			· Promote sustainable economic growth and decent work	· Reinforcement of construction equipment safety management and establishment of smart safety solutions	24, 70
	Happy employees		· Ensure inclusive and equitable quality education and promote lifelong learning opportunities	· Diversity-based talent recruitment, such as job mentoring services for college students' employment support	76
			· Achieve gender equality and empower women and girls	· Extension of parental leave period and support for infertility treatment	78
			· Decent jobs and economic growth	· Cultivating a satisfying corporate culture through Millennial system improvement TF, compliment coupon system, and Pulse Survey	77
		· Reduce inequality within and among countries	· Preferential treatment for the underprivileged through expansion of employment of persons with disabilities	75	
GOVERNANCE	Governance		· Revitalize global partnerships for sustainable development	· Reinforcement of ESG expertise through the operation of the Corporate Citizenship Consultative Groups	26, 81
	Risk Management		· Promote inclusive societies for sustainable development	· Implementation of step-by-step risk management and operation of an organization dedicated to risk management	26, 82
	Ethical Management		· Promote inclusive societies for sustainable development	· Holding four major campaigns to prevent unethical practices and employee ethics education	83
	Human Rights Management		· Promote inclusive societies for sustainable development	· Improvement of sexual harassment prevention system and conduct of a survey on respect for human dignity	85
	Fair Trade		· Promote sustainable economic growth and decent work	· Adoption of a Fair Trade Compliance Program	86
	Information Security		· Revitalize global partnerships for sustainable development	· Introduction of on-site security cloud and operation of internal and external audit programs	88

Responsible Corporate Citizenship



Responsible Corporate Citizenship

BUSINESS

38

Innovative Construction Technology

44

Best Quality and Customer Satisfaction

50

Green Construction

SOCIETY

56

Sustainable supply chain

62

Sharing value with the community

PEOPLE

68

Safe workplace

74

Happy employees



BUSINESS

Innovative Construction Technology

Why is innovative construction technology important to POSCO E&C?

As the pace of the fourth industrial revolution accelerates due to COVID-19, the importance of digital technology is rising and the digital transformation is accelerating, such as the worldwide spread of artificial intelligence (AI). Digital transformation is a critical issue that can not only dramatically increase productivity and profitability, which define a company's business competitiveness, but also drive the transformation of the company's constitution and promote new businesses based on digital technology. POSCO E&C carries out digital transformation in its entire PROJECT LIFE CYCLE(PLC) process for successful project execution and robust competitiveness in the construction industry.

How does POSCO E&C respond to future technologies?

To ensure preemptive response to changes in the construction environment, POSCO E&C focuses on innovation in smart construction technologies, which include data-based decision-making, smart technologies (BIM, Smart Tools, prefabrication), and smart processes (pre-construction). In 2019, we launched an organization dedicated to smart construction along with new mid- to long-term strategies and work processes. In the following year, we established a digital transformation master plan. In 2021, we launched an organization dedicated to digital transformation to promote effective implementation of various plans. The establishment of a technology development strategy to respond to the fourth industrial revolution, COVID-19, and the Korean New Deal is contributing to the sustainable growth of the company and the expansion of its ESG performances.

>> Plans for the future

POSCO E&C is focusing on accelerating the digital transformation of work performance and increasing the number of smart construction sites. To achieve company-wide digital integration, we will establish a enterprise data governance and management standards. And build a virtuous cycle that can lead to the creation and utilization of high-quality data while at the same time making multi-faceted efforts to form a consensus among employees and improve their ability to tap advanced technologies.

Risks

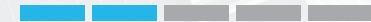
- Domestic construction market stagnation
- Intensifying technological competition due to the fourth industrial revolution
- Operating loss due to re-construction and extension of construction periods

Opportunities

- Increased project efficiency through the standardization of field work and construction management
- Enhanced productivity through digital transformation technologies
- Increased bonus points for utilizing smart technologies in government

Risk analysis

Likelihood



Impact at the time of occurrence



UN SDGs



8.2 Achieve higher levels of productivity of economies through diversification, and technological upgrading and innovation

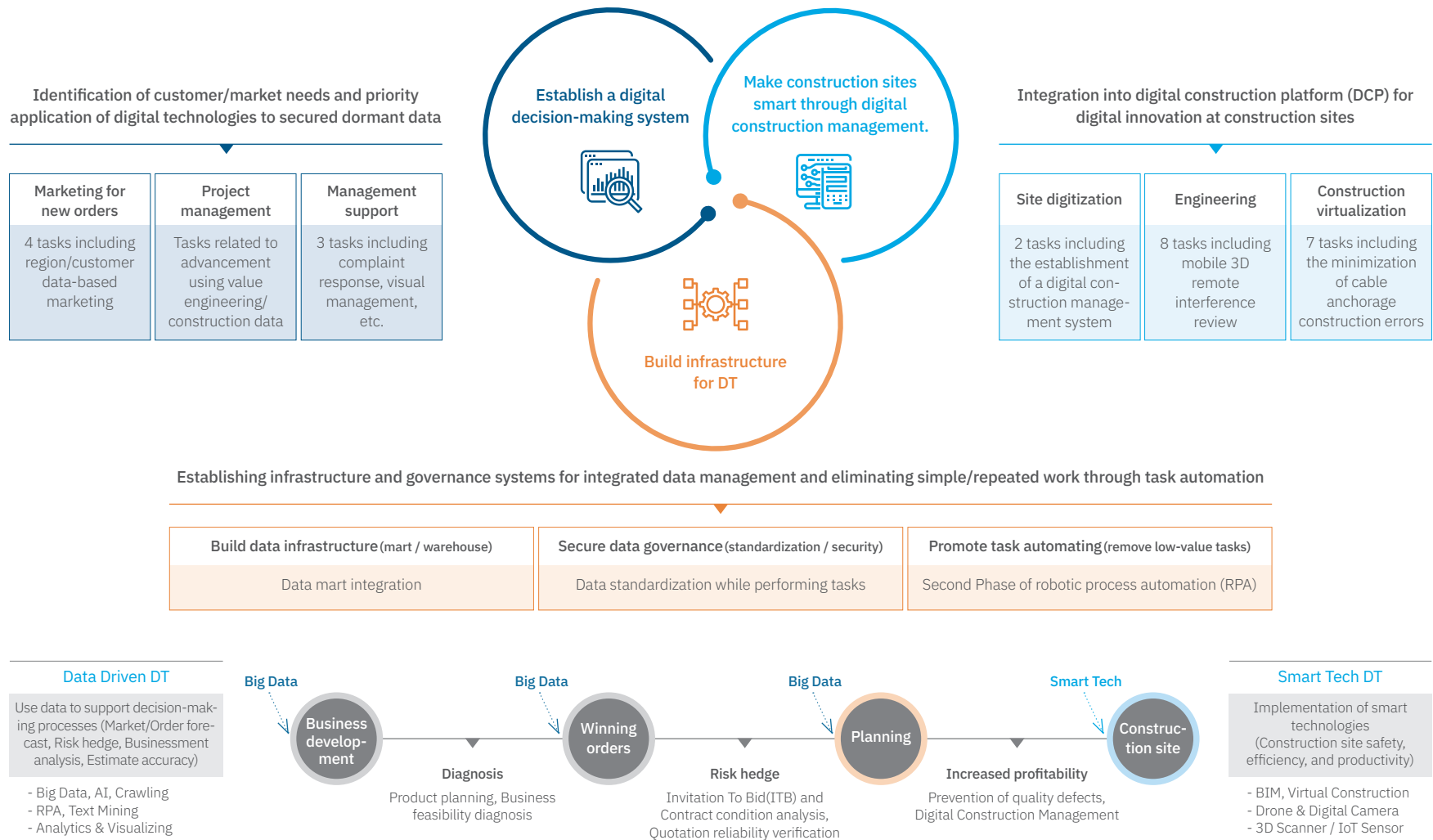


9.5 Upgrade the technological capabilities of industrial sectors by expanding the number of R&D workers and R&D spending

Digital Transformation

Strategic directions

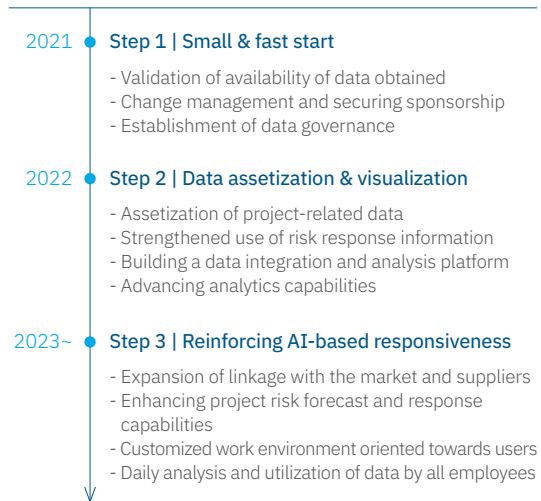
Digital transformation (DT) refers to a future-leading work method based on the diagnosis using digital technologies such as big data and AI and the implementation of smart technologies, such as visual construction and drones. The main approach includes: (a) the establishment of a decision-making system that can support decisions on project feasibility and risk improvement by efficiently linking accumulated data; (b) the realization of a Smart Construction site through the latest innovative technologies, such as IoT, 3D scanning, and robotics; and (c) building support infrastructure and integrating relevant data. After identifying tasks required to achieve such goals, we are accelerating our efforts to meet them.



Establishment of a DT master plan

In 2020, to secure sustainable and differentiated business competitiveness, POSCO E&C established a DT master plan along with a POSCO E&C-type DT promotion direction and a DT roadmap.

DT roadmap



Establishment of a dedicated DT organization and a consultative body

POSCO E&C installed a dedicated organization to establish and implement the DT master plan. Through our partnership with the POSCO Liaison Center (PLC), we regularly conduct technology seminars and seek advice on technology development tasks. We are also actively participating in the DT initiative activities of the Korea Industrial Technology Association (KOITA) to identify DT trends and exchange information.

Employee change management and in-house spread of DT

POSCO E&C is preparing to hold a DT contest to increase employees' awareness and improve their DT utilization capabilities. We are also accelerating the company-wide spread of DT by sharing the best practices and continuously discovering tasks by identifying business needs.

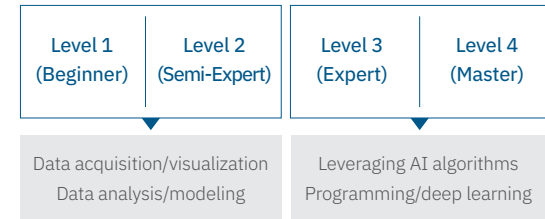
Advanced Data Analytics Professional (ADP/ADsP)

42 persons



Systematic training of company-wide DT personnel

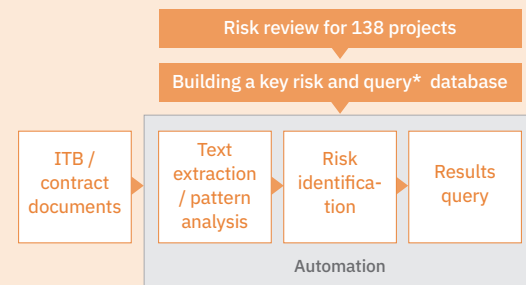
POSCO Group has come up with a New-Color certification system to develop talents with DT capabilities, such as in AI and big data. In connection with the new certification system, POSCO E&C also offers education programs designed to develop in-house experts as well as spread the required mindset. The programs are composed of four DT competency levels that include the introduction of basic data structure and analysis methods, basic coordination competency, and programming skills using algorithms, as well as construction industry application cases and mock tasks.



Introduction of Quick ITB analysis system

POSCO E&C has established and is operating Quick ITB (Invitation to Bid) analysis system for risk hedges in the areas of quality, safety, and environment of overseas projects. As overseas projects have different safety and environmental regulations for each country and strict quality requirements, accurate review and appropriate response are essential when bidding. Yet it is difficult to detect risk items and establish countermeasures by accurately analyzing ITBs, which are usually hundreds to thousands of pages, within a limited bidding period. There is also a high probability that deviations will occur depending on the knowledge and competence of the persons in charge. To solve these issues, We established a system to easily detect risk items in ITB in a short time by introducing a program that can search sentences based on text patterns. With the standardized hedge method applied to the risks derived, we are using the method to minimize uncertainties that might occur at the project execution stage. We are planning to study the ITB data of various countries and clients accumulated during the bidding process to further improve data accuracy and expand the application to other fields in a bid to increase our project execution competitiveness.

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*Query: Search condition to find the part corresponding to the risk factor in the ITB sentence

Smart Construction

Building information modeling

Building information modeling (BIM) is a three-dimensional digital modeling technology that integrates all the information involved in the process from design to construction and maintenance. Based on the integrated review between types of construction work using this technology, an optimal construction plan can be established through design and construction simulation designed to improve construction quality and eliminate safety risks. POSCO E&C expanded the scope of BIM application to three-dimensional-based process planning and virtual construction simulation. For the Sinansan railway project, we applied BIM to all routes and vehicle depots for the first time among domestic railway projects. The project enabled us to check for any design errors and ensure adequacy in design and construction quality. We improve our BIM competency by providing job training and specialized training for all employees and suppliers. While we applied BIM to most of our projects in 2020, we will begin to apply the technology to all new projects in 2021.

Running total of trainees for 3 years

250 persons

(including our employees and suppliers from 2018 to 2020)



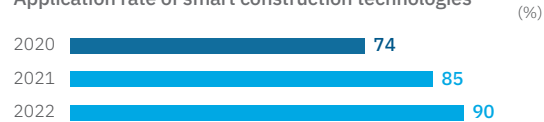
Prefabrication

Prefabrication is a technique for assembling major structures and facilities in a factory and completing the assembly on site. This is a technique that can minimize on-site work. The prefabrication items that we have developed include main entrances to apartment buildings and modular electrical rooms. We applied the prefabrication method to the combined cycle power plant project in Pohang and shortened its construction period by 40 days. We plan to discover additional prefabrication items and improve our on-site productivity by establishing a relevant supply chain.

Participation in the pre-construction process

Pre-construction is a project management technique in which all parties gather to optimize cost, time, and quality through BIM-based virtual construction prior to starting of construction. POSCO E&C strengthened its marketing activities based on pre-construction services and won the order for the Samyang Food Processing Plant in Miryang City. By applying the pre-construction process to the Pohang Incubating Center, we reduced the construction cost by about 4% through collaboration with the client and suppliers. In addition, we published pre-construction work guidelines, conducted pre-construction manager training, and thus expanded the technique to our construction sites.

Application rate of smart construction technologies



(Formula: Work where smart construction technologies are applied / Construction projects commenced for the year)

Utilizing Smart Tools

POSCO E&C deploys smart tools in the surveying and design processes as they enable us to quickly and accurately identify areas that are difficult to reach or too big to cover. In 2020, we introduced LiDAR drones, high-performance scanners, and built a POS-SITE system, an integrated field surveying and management application. We are also building digital sites by adopting smart equipment such as MCS (automated construction equipment) and GPR. In the Sinansan railway project, we used drones and scanners to map the status of existing facilities in downtown areas prior to kickoff to eliminate interference with existing facilities in advance. As for the Yeosu Hwatae-Baeggyado project, we improved our estimation accuracy by using high-precision LiDAR drones and scanners to secure detailed design data for major sections. Proven by such activities, we will expand our utilization of smart tools to all parts of each construction project.

POS-SITE

In April 2020, POSCO E&C launched POS-SITE, an integrated on-site topography surveying and management app, for the first time among domestic construction companies. POS-SITE is a cloud-based digital transformation app that uses drones and 3D scanners to survey a construction site and creates a 3D model based on the results. We share visualized site information through the app in real-time and manage the construction process easily and conveniently by superimposing the site model with drawings. Moreover, the application calculates the required work quantity accurately and predict areas prone to accidents to take preventive measures. We expect POS-SITE to help us manage a larger number of processes efficiently and systematically as stakeholders can make timely decisions.

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Establishment of Digital Construction Management Platform

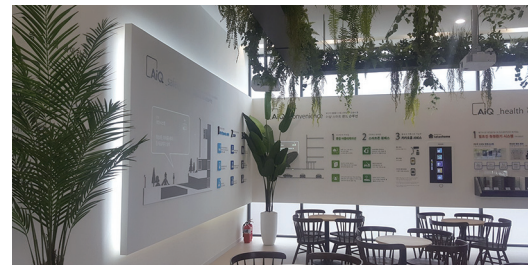
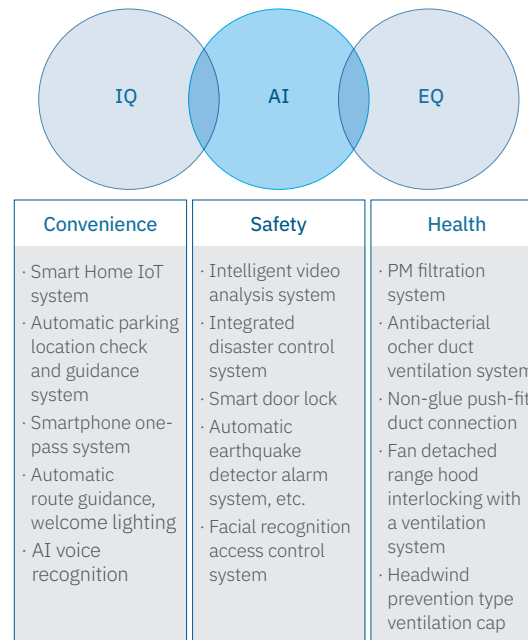
POSCO E&C is building a cloud-based Digital Construction Management Platform that integrates smart construction technologies applied to design and construction management. It is a mutually compatible integration of POS-WEB, a design review system, POS-SITE, a project site analysis system, and POS-VCON, a construction management system. From the design to the final construction stage, data from each system are linked and become compatible with each other to maximize work efficiency. Anticipating further acceleration of smart construction through the Digital Construction Management Platform, we will continue striving to develop more smart construction technologies.

POS-SITE^{3D}	<ul style="list-style-type: none"> • Project site information management Drone/scanner-based precision surveying/analysis • Smart quality/safety control IoT-based equipment automation/control
POS-VCON^{3D}	<ul style="list-style-type: none"> • Construction management Establishment of optimal BIM-based construction plans • Process management, cost management BIM-based process/cost management
POS-WEB^{3D}	<ul style="list-style-type: none"> • Integrated 3D design management Real-time BIM integration and collaboration • Design automation Design automation using BIM library

AiQ TECH

AiQ TECH

POSCO E&C launched a smart technology brand AiQ TECH in the housing sector for the first time in the industry. AiQ TECH means an intelligent and emotionally smart technology that learns by itself for the sake of customers. It consists of convenience technology, safety technology, and health technology.



AiQ TECH applied to a model house

AI speech recognition apartment

POSCO E&C is striving to provide a convenient life for residents by utilizing smart technologies such as IoT and AI. Most notably, we enabled households to have conversations through voice speakers installed within their households by linking the AI platform “Kakao i” and THE SHARP home networking system. In addition, residents can use KakaoTalk to control their devices and check their status while they are outside, thus granting them a more relaxed and smart daily life.

HEMS

POSCO E&C adopted a home energy management system (HEMS) to enable residents to monitor their energy consumption by hour, month, and year. The system provides data that compares the energy consumption of different households, thus motivating them to save energy. Also, to protect them from any negative environmental impact, the residents can use the automatic ventilation control system using Kakao i or their smartphones.

Three-tier security system

POSCO E&C struggles to ensure residents' safety at all times, from apartment access to the park and household access. Our three-tier security system, which consists of “women’s safety service,” “children’s safety service,” and “elevator safety system,” monitors the children within the complex and inside elevators and the situation inside the elevators. In addition, in the event of a disaster in connection with the earthquake detection system, earthquake warnings and evacuation tips are delivered in real-time via HEMS to prevent accidents and human casualties.

Steel Meets Nature: THE SHARP Gallery

THE SHARP Gallery, the future of residential space

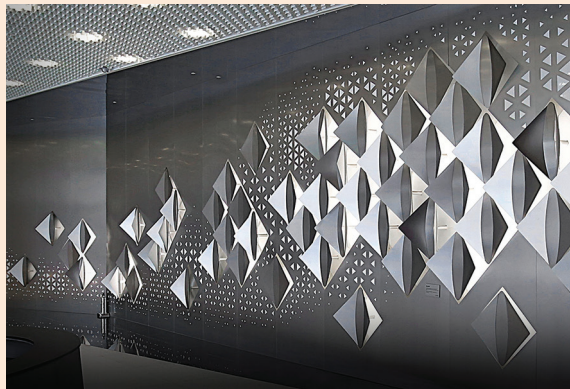
In April 2020, POSCO E&C opened THE SHARP Gallery, a 3-story complex exhibition hall with an area of 4,966 m², in Sinsa-dong, Gangnam-gu, Seoul. The gallery introduces to introduce the architectural features that the company is pursuing, the future of residential culture, and the outstanding edges of buildings using high-quality steel materials. Built under the theme of “Steel Meets Nature,” THE SHARP Gallery proves the infinite possibilities of using steel for residential construction and provides a glimpse into the future of architectural culture.

The lobby on the first floor features an interactive media art wall that detects and responds to the movement of visitors to introduce the core values pursued by POSCO Group’s management philosophy “Corporate Citizenship: Building a Better Future Together.” The INNOVILT media table showcases POSCO E&C’s eco-friendly vision and cutting-edge technologies of the future. Visitors can witness our unique skyscraper construction technology proven through Yeouido Parc1 and POSCO Tower Songdo projects along with the major steel materials used in the projects.

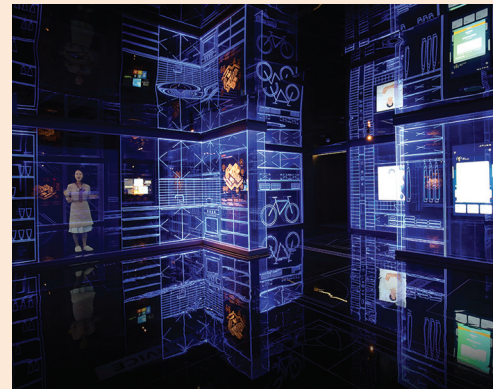
The Smart Construction Hall and the AiQ TECH Hall located on the first floor showcase future construction processes led safely and precisely by construction robots in charge of everything—from information collection to construction work. The two halls also allows visitors to experience our state-of-the-art smart home experience hall features, such as lighting, door lock, gas control, crime prevention, and voice control, as a result of combining IoT and AI technologies. The second floor is used as a model house for apartment complexes in the Seoul area while the third floor is operated as a future housing exhibition hall with cutting-edge technologies in addition to a cultural and artistic space for visitors.



THE SHARP Gallery (exterior/interior)



THE SHARP Gallery Lounge: Kinetic sculpture using POSCO stainless steel



AiQ TECH Hall: POSCO E&C’s state-of-the-art smart home experience hall



Public Hall (3F): A space for customers to relax including a mini cafe, an outdoor terrace, and a culture hall

BUSINESS

Best Quality and Customer Satisfaction

Why is best quality and customer satisfaction important to POSCO E&C?

A decrease in quality competitiveness and an increase in customer complaints lead to a deterioration in brand value and corporate image, which directly affects corporate growth. The growth of POSCO E&C into a general contractor with global competitiveness is the result of the company's continuous efforts to create customer value with the best quality.

How does POSCO E&C respond to best quality and customer satisfaction?

In order to offer the best quality, POSCO E&C is implementing digital technology-based quality support and quality diagnosis using specialized non-destructive equipment for over 130 construction sites nationwide while all of its on-site employees participate in in-house quality assurance activities to prevent construction defects and promote continuous quality improvements. We are making every effort to provide the best living space through THE SHARP apartments that maximize the residents' health and comfort while offering an "eco-friendly and smart well-being home" for them.

>> Plans for the future

To further improve quality, POSCO E&C is strengthening its quality improvement activities through its suppliers' participation and thus contributes to quality improvement. We provide quality education and diagnosis to those suppliers involved in vulnerable types of construction work and present each supplier with defect analysis reports based on big data. We plan to grow into a global contractor with differentiated competitiveness by pursuing the best quality and service competitiveness in the process of promoting new types of business such as floating solar power, offshore wind power, and rechargeable battery development in line with the government's Green New Deal and Digital New Deal initiatives.

Risks

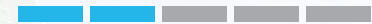
- Possibility of post-completion risk occurrences such as faulty work and defects
- Increasing customer demand for product quality and service

Opportunities

- Improved business competitiveness through the acquisition of technology certifications
- Enhanced customer satisfaction through systematic quality control

Risk analysis

Likelihood



Impact at the time of occurrence



UN SDGs



9.5 Upgrade the technological capabilities of industrial sectors by expanding the number of R&D workers and R&D spending



11.3 Enhance sustainable human settlement planning and management capacities

Top-notch Quality Control

POSCO E&C aims to be a corporate citizen that creates customer value with the best quality. To this end, we provide quality support based on digital technologies and quality diagnosis using specialized non-destructive equipment, such as rebar excavators. At construction sites, we are strengthening our efforts to prevent defects and continuously improve quality by conducting in-house quality activities in which all on-site employees participate.

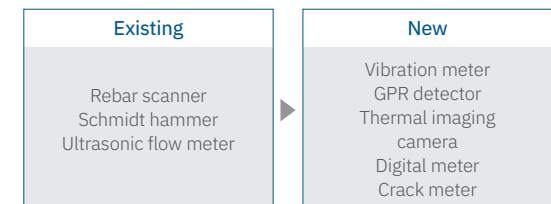
Quality Goals



Utilizing state-of-the-art inspection equipment

POSCO E&C ensures preemptive response to the rapidly increasing number of defect complaints and lawsuits. We use state-of-the-art inspection equipment to diagnose defects and share the diagnosis results with customers. Notably, we have solved issues of structural stability through objective verification and provided on-site technical support through various types of specialized equipment. In 2020, based on the on-site voice of the customer (VOC), we expanded our support by adding five kinds of equipment, including vibration meters. We launched “THE SHARP Home Check” activity process for completed apartment complexes in the second half of 2020. Two months prior to the completion, we checked reinforcement, insulation and leakage, among others, for one household by the apartment building type and shared the results at briefing sessions for residents as well as with resident organizations. As a result of such proactive response to potential complaints, we were able to reduce residents’ dependence on maintenance services. In 2021, we plan to promote the regularization of THE SHARP Home Check by expanding the service to the verification stage at the start of major types of construction work at all our construction sites in addition to the current service available near the completion of each process.

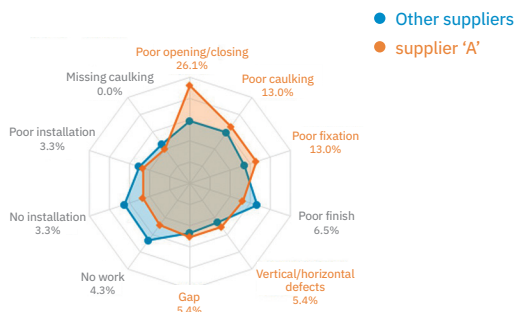
Expansion of specialized equipment to eight in 2020



Intelligent defect prevention system

With the recent increase in customer demand for quality and the increase in defect inspection agencies and law firms specializing in defect litigation, the need for preemptive quality activities to prevent defects is emerging. Accordingly, POSCO E&C developed an intelligent quality management system, the industry's first big data analysis-based quality management technology, based on data such as defect types of construction work, types, and locations of apartment houses that have been systematically accumulated over the past 20 years. The intelligent defect prevention system converges company-wide data related to defects accumulated in-house since 2004, analyzes defect trends by suppliers through big data analysis, and generates and automatically sends defect prevention reports to the person in charge of each construction stage. This process allows suppliers and construction sites to use the information they have received to improve quality and prevent the same or similar repeated defects.

The analysis of a supplier's defect trends



Operating on-site integrated quality management system

Existing quality documents were managed as paper documents in an atypical format and were largely lost some time after the project was completed, making it difficult to create a database (DB). POSCO E&C operates the project quality management system (P-QMS), which digitizes quality documents and enables data analysis, in order to eliminate such inefficiencies and improve on-site quality management levels through data accumulation.

Composition of Operating on-site integrated quality management system

Home	Quality system
Quality manager registration External inspection management	Measuring instrument management Non-conformance report (NCR) management
Construction quality	Materials quality
Self on-site quality inspection Structural crack management	Supplier approval Quality test management Concrete history management

Improving the defect response process

POSCO E&C strives to improve customer satisfaction through defect response management by the Before Service (BS) and After Service (AS) departments within the CS group. Since defects are related directly to customer satisfaction, prompt management and handling are required. We identified 120 major defects that significantly affect customer satisfaction and published an "Emergency Response Guide" to minimize customer inconvenience. In the case of a serious defect such as a water leak, we conduct inspections, determine the cause, and complete emergency measures and repairs within 12 hours.

MOTIE (2019 - 2020)

Selected as a company with excellent quality competitiveness



Poor quality score given by MOLIT

0.05 points in 2020 (the lowest among Korea's top-10 construction companies)



/ SPECIAL / ISSUE /

Contact-less Plant Facility Diagnosis Management Platform

Contact-less plant facility diagnosis management platform is the latest technology used to analyze the cause of facility or equipment defects and provide solutions on an online platform. It is incredibly useful in situations where movement between countries and regions is difficult amid the COVID-19 pandemic. Since the diagnostic equipment is portable and can be handled by non-experts, companies can save time and money they spend on experts' visits to construction sites. By utilizing big data collected from multiple sites, they can also come up with customized solutions for their operational situations to detect and solve any quality issues early on.

Customer Satisfaction Management

Service with All Heart

The Service with All Heart is a service brand that portrays the true heart of THE SHARP that seeks to serve customers with all of its heart open to the voices of customers. POSCO E&C provides a variety of benefits such as seasonal decoration, curating, sharing, clean utility, and life services so that customers can enjoy a comfortable and convenient residential life. In line with ESG trends, we are getting ready to provide residents with various programs, including environmental concerts, children's play, and energy lantern donation activities. Our differentiated services will be offered the moment customers choose THE SHARP and last even after they move into our apartment buildings. Moreover, we endeavor to satisfy our customer by launching various customer engagement programs.

Mobile customer service app All-Heart Lounge

In 2020, to respond to COVID-19 and expand customer convenience, POSCO E&C developed "All-Heart Lounge," an app designed to resolve customer complaints. On the app, customers can apply for residents' pre-inspection, make an occupancy reservation, register complaints, and check their progress. In 2021, we plan to add a remote consultation system and contact-less services to the app.

THE SHARP brand renewal

THE SHARP, the apartment brand of POSCO E&C, has been renewed for the second time since its launch and 11 years after the first renewal. This renewal is based on the concept of "Advance in Core" with the determination that the company would open the era of "THE SHARP 3.0" cherishing the original values of housing in 2020 when a new decade started. With the structure where horizontal and vertical strokes intersect, the new brand highlights the strength and robustness that the company pursue to create. Since the launch of the latest THE SHARP brand, POSCO E&C has supplied 125,000 housing units in 150 complexes across the country. As such, we will continue our best to make it a 100-year-old corporate brand cherished by our customers for our highest quality buildings in Korea.



THE SHARP

TF for response to floor impact noises

To solve floor impact noises in apartments, POSCO E&C formed a TF composed of 16 experts with master's and doctoral degrees in the areas of noise, vibration, materials, and structures. The team will develop materials, designs, and construction technologies that help reduce noise between floors and we will apply them to our construction sites. By the end of 2021, we aim to commercialize the hybrid-type reinforced floor structure technology that will dramatically reduce heavyweight impact noises with the high-performance mortar and composite cushioning materials applied to the floor. We plan to continuously expand R&D to build high-quality housing based on THE SHARP philosophy calling for concentration on the essence of housing.

Customer satisfaction index

In 2020, POSCO E&C won first place in the Korean Standard-Quality Excellence Index (KS-QEI): apartment sector. Since 2009, when awards in the apartment sector began, we have been awarded first place for the 11th consecutive year, becoming the first big business in Korea to be inducted into the Hall of Fame. We also won the first place (apartment sector) in the Korean Standard Well-Being & Environment Index (KS-WEI) and ranked second (apartment sector) in the Korean Standard Contact Service Quality Index (KS-CQI), up three places from 2019. The awards re-certified our quality excellence from the perspective of consumers and experts, positively contributing to winning new orders and thus bolstering our brand value. We will continue to strive to provide services that satisfy our customers.

KS-QEI

1st place in the apartment sector
(11 years in a row)



KS-WEI

1st place in the apartment sector(2020)

Brand Customer Loyalty Award

1st place in the apartment sector(2018 - 2020)

KS-CQI

2nd place in the apartment sector(2020)

The Sharpist That Listens to VOC



Major activities of the Sharpist

The Sharpist homemaker advisory group ("The Sharpist") was launched in July 2007 as part of the POSCO E&C's efforts to create the residential space that customers wanted. As of 2021, seven people are serving at the 14th Sharpist. The group consists of housewives with experience or interest in architecture and interior design. They meet 2 to 3 times a month to participate in THE SHARP model house evaluation sessions and interviews concerning new product development. They play a key role in helping the company develop products that reflect customers' needs and proposing specialized elements.

Proposal of new ideas and discussion on key topics	Participation in interviews for floor and design projects	Design review and discussion
Evaluation of POSCO E&C model houses	Evaluation of other companies' model houses	Visits to complexes drawing attention

Key achievements of the Sharpist



Styling bath



Gym with tracks

Product suggestions by Sharpist Members

12th	13th
<ul style="list-style-type: none"> • Proposal of interior idea and THE SHARP Gallery • Customer-tailored entrance option, multifunctional auxiliary kitchen, bedroom storage system 	<ul style="list-style-type: none"> • THE SHARP: Proposal of new model house ideas customized for COVID-19 era • The Real House: Proposal of new kitchen/bathroom ideas • Proposal of ideas about senior centers

/ SPECIAL / ISSUE /

Q: When did you start working as The Sharpist, and what has been your main focus?

A: I majored in interior design. I have been working as The Sharpist since 2015 because it gives me joy. I have also lived overseas for some time. Thus, I think I can analyze market trends and make suggestions to the company from the perspective of consumers who will live in the company's apartments. I've taken part in the evaluation of model houses, too.

Q: When is the most rewarding moment as The Sharpist?

A: While working as The Sharpist, I feel most rewarded when the floor plan or design ideas we proposed are applied to an actual model house. I lived in the US for several years, and I was impressed with their cloakroom next to the shoe closet. Given the environment with a lot of fine dust, I suggested placing the styler at the entrance or the hallway instead of the master dressing room. This idea was reflected in THE SHARP apartments in Gunsan and in Gwangju. Housewives go out several times a day, and I think that such a layout change can increase convenience. It is also rewarding to see THE SHARP apartments, for which I took part in the model house evaluation, completed and occupied by people.

Q: Regarding amenities and apartment layout in the COVID-19 era, what are the major issues and expectations?

A: Due to the prolonged COVID-19 pandemic, people spend more time with their families, raising the demand for personal space at home. The desired living room usage and size are changing according to the age group. The latest trend is the dining area and a large island taking the center stage. In addition, Generation MZ prefers to have more flexible items so that they can change the space as they wish.

Q: What are the distinctive strengths of THE SHARP?

A: I think the biggest strength is reliability, which is proven by the fact that POSCO E&C has ranked first in the country in terms of customer satisfaction evaluation for a long time. In numerous meetings that I've had with the company staff, I have been able to see that what they want is not to sell more apartment units or to follow market trends; they are interested in how to match local characteristics and delight potential buyers, which I think has helped the company what it is today.



The Sharpist Choi Dong-eun

POSCO E&C and Mullae-dong Steel Art Contest

Mullae-dong is the center of steel production in the metropolitan area. However, small craftsmen in this neighborhood are having difficulties due to the recent decline in orders. To be of little help to these people, POSCO E&C decided to make steel art sculptures and install them in the public areas of the apartment complexes in collaboration with the small craftsmen in Mullae-dong. We held a design contest from September 8 to October 5, 2020, where the small craftsmen and local artists collaborated to create their works. We received 11 entries and selected and awarded four finalists. On October 27, we held a Steel Art Award at THE SHARP Gallery in the presence of our management, officials from Seoul Metropolitan Government (SMG), Yeongdeungpo-gu Office, the Seoul Small Manufacturer Association, and the Seoul Urban Regeneration Center. After exhibiting the winning works at THE SHARP Gallery, we installed them in eight THE SHARP apartment complexes, with more planned to be installed in new sites. In 2021, we plan to continue a sustainable win-win relationship with Mullae-dong by promoting a collaboration contest with university students across the country to discover up-and-coming artists and enhance our customer satisfaction at THE SHARP apartments.



Contest poster



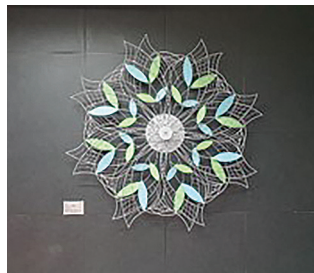
Mullae-dong Steel Art Contest Award



(Grand prize winner) 'Swallows with Good Fortune' Cheongju THE SHARP First Park



'Echo of Circle' Osan College Station THE SHARP Central City



'The giving tree' Hanam Gamil THE SHARP Four Well City



'THE SHARP(#) Forest' Incheon THE SHARP Sky Tower

/ SPECIAL / ISSUE /

Q: What motivated you to participate in the contest?

A: While preparing for a solo exhibition, I heard about the steel art contest from an acquaintance in Mullae-dong. I suddenly came up with an idea and decided to participate in the contest.

Q: What would you say is the meaning of your work?

A: I wanted to describe swallows coming back to the nest, which has the shape of THE SHARP apartment, with pumpkin seeds in their mouths, suggesting that the apartment occupants will be blessed.

Q: What was difficult or rewarding while preparing for the contest?

A: Since my understanding of steel sculptures was not particularly high, the thin lines in the graphic were thickened a lot during the production process. I had to consider safety because strong material steel was used, it was the hardest to smooth the edges and rough parts of the surface. Yet, I gained deeper understanding and knowledge about the materials and workmanship during the collaboration with craftsmen and it was such a great opportunity for me to further expand my design ideas. Every time the work progressed, there was a great sense of satisfaction and pride, which was very much rewarding indeed.

Q: What did you consider the most in making your design for the public area of an apartment?

A: Given the fact that the artwork will be installed on the wall of an apartment lobby, I tried to find a concept cherished by all ages and suitable for THE SHARP brand image. I made sure that anyone in Korea could relate to the work by adding a taste of a Korean folk tale.

Q: What kind of support do you think should be given to artist and small craftsmen?

A: I would suggest holding the competition regularly with a broader range of items that can be submitted, like steel-based products and interior accessories.



Lim Soo-min, artist of 'Swallows with Good Fortune' (grand prize winner)

BUSINESS

Green Construction

Why is the green construction important to POSCO E&C?

With the arrival of a new global climate regime in 2021, many countries, including Korea, and companies have declared carbon neutrality, and the global economy is being reorganized with a focus on responding to the climate crisis. Eco-friendly management including response to climate change is a matter of survival. It is closely related to POSCO E&C's business conduct and its responsibilities as a corporate citizen.

How does POSCO E&C respond to the green construction?

POSCO E&C established a mid- to long-term roadmap to achieve carbon neutrality and we are responding according to short-term and mid- to long-term goals set for each environmental risk as well. Having thoroughly recognized the importance of managing environmental damages that construction industry causes such as fine dust, noise, and waste. We are increasing the use of materials certified for low carbon, resource circulation, and indoor air pollution reduction.

>> Plans for the future

As a corporate citizen, POSCO E&C actively participates in resolving environmental issues in local communities. We strive to minimize the damage to the residents by reducing the emission of environmental pollutants from our construction sites and strengthening our waste management efforts. We will achieve Carbon Negative by 2050 to help combat climate change, a global crisis.

Risks

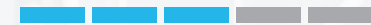
- Stricter domestic and foreign regulations such as the Paris Agreement and The Framework Act on Low Carbon, Green Growth in Korea
- Increasing costs in GHG emission management caused by the introduction of a carbon tax, etc.
- Delayed construction schedule, decreasing work efficiency, rising occupational accidents due to extreme weather, such as heat/cold wave, heavy rain, and storms

Opportunities

- Increase in Green New Deal investments
- Discovering new eco-friendly businesses and preoccupying new markets
- Increasing investment in eco-friendly construction and creating jobs in related fields
- Reducing waste and energy consumption through eco-friendly technology development

Risk analysis

Likelihood



Impact at the time of occurrence



UN SDGs



6.4
Ensure sustainable withdrawals and supply of freshwater



7.2
Increase the share of renewable energy in the global energy mix



12.5
Reduce waste generation through prevention, reduction, recycling, and reuse



13.1
Strengthen resilience and adaptive capacity to climate-related risks and natural disasters

Eco-friendly Management Promotion System

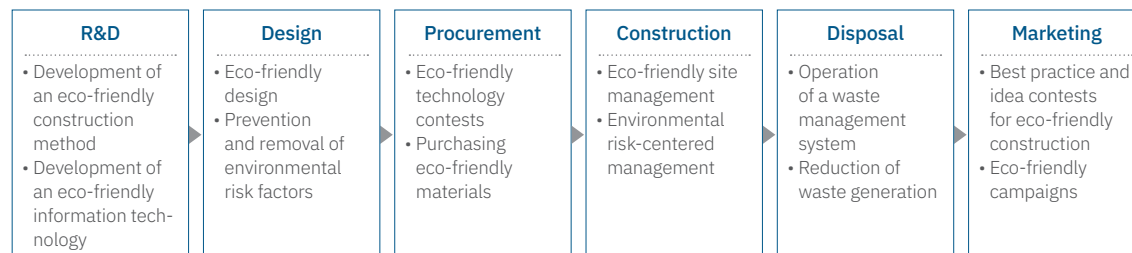
Eco-friendly management system

POSCO E&C is engaged in various activities from an environmental perspective in its overall business based on the “POSCO Group Environmental Management Policy.” Through our participation in government-led environmental projects, such as generation of new and renewable energies and hydrogen, and development of eco-friendly construction steel materials in cooperation with POSCO Group, we will continuously strengthen our environmental management strategies according to the needs of the time.

Environmental goal



Measures for environmental management by construction stage



Mid-term strategies for environmental management

In response to environmental risks, POSCO E&C establishes short and mid- to long-term goals. In particular, we acknowledge the importance of managing factors that the construction industry causes harm to the environment, such as fine dust, noise, and waste, and strive to take strict countermeasures against them. To achieve our environmental goal for 2021, which is “to achieve ZERO accidents by complying with the key points of environmental management,” we are conducting projects with business partners related to noise, dust, waste, and water quality. We are also performing pilot testing to expand the technology for removing environmental risks.

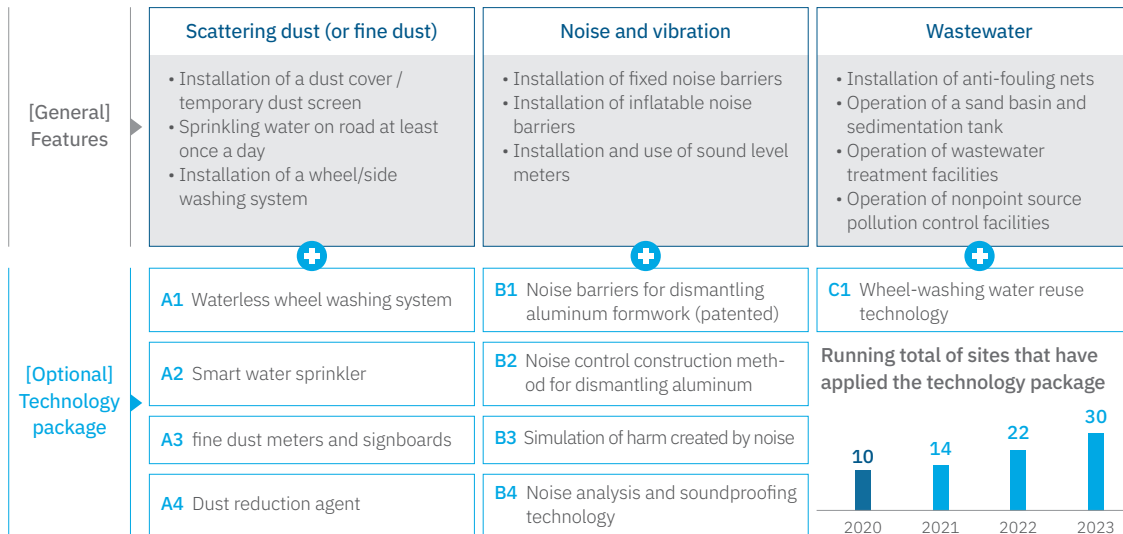
Eco-friendly environmental management system

POSCO E&C jointly complies with POSCO Group’s Environmental Management Policy. The Environmental Management Policy conveys the will to pull off sustainable development not only through production of goods, but also by considering the environment in overall business activities. Following the renewal of our ISO 14001 certification, we established an environmental management system that meets international standards. We are operating an eco-friendly environmental management system (POSCO E&C Environmental Management System, POEMS) that is optimized for the construction industry. Through POEMS, we conduct project planning, performance management, collection and analysis of environmental data, and analysis of environmental laws and regulations. The system is also used as a communication channel for sharing information between the headquarters and construction sites.

Minimizing Environmental Impact

Environmental technology package

To lead a construction culture that coexists with the environment, POSCO E&C developed new technologies to minimize major environmental issues of construction industry, such as fine dust, noise, vibration, and wastewater, and made them into a package to apply on sites.



Fine dust control technology

Recently, interest in hazardousness of fine dust has increased, leading to more complaints on dust created from construction sites. The former dust suppressants were synthetic chemical compounds including oil, saccharides, and salt that were effective in fine dust reduction, but not fit for acquiring environmental certifications. Such components create volatile substances that are harmful to the human body and have poor biodegradability, creating negative effects to the environment, such as water pollution and spontaneous combustion. To respond to such issue, POSCO E&C developed and applied eco-friendly dust reduction agent that minimize environmental impact. thereby leading the industry in reducing air pollutant emissions.

Development of an Eco-friendly Scattering Dust Reduction Agent

As part of a national project, POSCO E&C and ten external organizations, including the Ministry of Environment and Inha University, are engaged in developing a technology for reducing and controlling scattering dust in construction sites. In particular, we developed a scattering dust reduction agent by using eco-friendly hybrid polymer jointly with Durabi E&C and Jinwoong Chemical and filed a patent as a technology of POSCO E&C. The Western Inland Highway Project Section 11 requires extra control of construction scattering dust, as 92 percent of the site requires earthworks. Accordingly, we tested the eco-friendly scattering dust reduction agent in this site and showed a cost reduction of 50 percent compared to spraying general water with water spray trucks. We were also recognized for preemptively responding to eco-friendly management of construction sites, thus selected as a company that showed the best practice for the highly-efficient reduction of construction scattering dust. Furthermore, we guaranteed mutual growth with small and medium-sized suppliers that participated in the development, as they were able to secure new sales routes.



/ SPECIAL / ISSUE /

Improvement in selecting waste management businesses

Recently, there has been strengthened control on illegal waste treatment of waste management businesses, raising risks on the violation of related laws and regulations and increasing the importance of waste management. In response, in order to ensure stricter management of businesses in charge of waste generated from our sites, POSCO E&C established a process of inspecting such businesses in advance before making a contract. We select appropriate waste management companies through preliminary inspection process and conduct overall evaluation, including license, treatment capacity, and insurance. The monitoring continues even after the signing of contract and we verify whether the waste has been lawfully treated upon expiry of contract.

Expansion of waste recycling

Waste generated during construction ensures easy recycling. Waste concrete, asphalt concrete, soil, and other construction materials are manufactured into recycled aggregates and soil from recycling companies. Waste wood and waste boards are produced into and sold as new materials, such as particle boards and drywalls. To maximize the recycling rate of such waste materials, POSCO E&C have set a manual to separately store and dispose waste generated from sites, contributing to the increase of the country's waste recycling rate.

Waste generation (by type)

Type	Unit	2018	2019	2020
Designated waste	ton	0	0	0
Industrial waste	ton	138	48	59
Construction waste	ton	800,539	846,770	633,722
Total	ton	800,677	846,818	633,781

Improvement of waste storage

Insufficient waste storage space, frequent transportation, and low awareness of suppliers had made waste storage difficult according to its type, resulting in violation of laws and regulations. To resolve this issue, POSCO E&C designed and developed a portable waste storage based on VOC of construction sites. As a result, we were able to achieve reduced disposal costs and increased efficiency and convenience.

Development and application of noise control construction method

Noise level of over 150 dB is created from dismantling aluminum formwork that has been put up for frame structures. As part of our efforts to minimize the noise level and prevent damage to the neighborhoods, POSCO E&C developed a noise control construction method and acquired a patent for it. We replaced polycarbonate noise barriers with vinyl bubble mesh noise shields, which ensure effective noise absorption and easy installation. In addition, EVA foams with excellent shock-absorption properties and flexibility were used to insulate noise generated from dropping aluminum formwork. Such replacements reduced noise about 24 percent compared to before.

We also set standards for applying the most appropriate noise barrier and shock-absorption method considering working conditions and distance between the source of noise and the affected regions. The standards were created into a video for easy understanding and distributed to each construction sites. The noise-absorption method has been applied in 7 sites in 2020. In 2021, we plan to apply the method in 30 sites that are expected to create a significant amount of noise pollution.

3D Simulator for Construction Noise

If loud noise is expected in a local community due to construction work, POSCO E&C runs a noise simulation program to seek ways to reduce noise. We developed the country's first 3D Simulator for Construction Noise, enabling the prediction of noise levels within three days, which used to take two months the conventional way. Through quick simulation, we estimate the level of complaints we may receive before winning an order and create a favorable environment for local residents by determining the appropriate height of noise barriers and adopting noise-absorption methods and facilities, thus minimize environmental impact.

POSCO E&C Receives the Best Award at the Contest of Best Practices in Construction Environment

In construction sites, it is often difficult to spray water due to changes in the location of work or problems with the water and electricity supply. In this regard, POSCO E&C collaborated with Sambu Machine, a company that specializes in pesticide sprayers, in developing an unmanned smart water sprinkler and filed a joint ownership of patent. This sprinkler has an engine, enabling the device to move by itself. It can control the sprinkling angle by itself or be controlled using a smart phone. This system is installed in 10 new construction sites and we plan to increase the number.



/ SPECIAL / ISSUE /

Preserving Biodiversity

Wastewater management

POSCO E&C strives for the improvement of water quality by managing wastewater generated from construction work. We install anti-fouling nets to ensure only overlying water is released to nearby streams, ocean, and public waters and utilize sand basins and sedimentation tanks to prevent soil runoff. Wastewater treatment facilities are managed to be operated at all times, complying with the discharge limits by region. We store wheel-washing water in tanks with an impervious surface to remove sediments and reuse the water. And we obligatorily install nonpoint source pollution control facilities to sites such as power plants, ports, and roads subject.

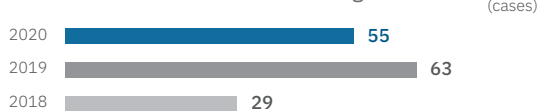


Reusing wheel-washing water



Installation of sludge collector (Pocheon-Hwado section 2)

Violation of environmental laws and regulations



* No significant penalty apart from administrative fines due to violations.

Feral cat shelters

To respond to the growing number of complaints in relation to noise and excretion of feral cats in the city, many local governments are participating in the Trap, Neuter, Release (TNR) program to control the number of feral cats. For successful TNR, these cats require a stable supply of water and food, and to meet this need, POSCO E&C collaborated with Korean Animal Welfare Association (KAWA) to create firm shelters for feral cats. To make them look more classy, we used steel for corrosion resistance, and parts that have contact with cats are made with wood. We also reserved spaces to put instant hot packs for the cats to spend a warm winter.

Renovation of a shelter for abandoned dog

In collaboration with KAWA and animal volunteer group 'Person Who Coexist With Animal,' POSCO E&C refurbished an old shelter for abandoned dog located near Western Inland Highway Project in Dangjin-si, Chungcheongnam-do. The dogs in the shelter were neglected in a life-threatening environment due to poor management of the shelter. We renovated the interior and installed fences outside to create a safe and clean environment for the dogs. We also decorated the exterior with wall paintings of animals, adding vibrance and a friendliness image to the building.



POSCO E&C's feral cat shelters

Plans for preserving biodiversity

POSCO E&C plans to continue its activities for the coexistence of human and nature. In urban redevelopment areas, we plan to operate temporary animal shelters to find out the number of stray animals before starting construction projects, rescue them, and protect them until the end of projects. We will also cooperate with national parks and create "acorn banks" to protect squirrels during the winter season. Moreover, through our continuous cooperation with KAWA, we pursue to promote the importance of preserving biodiversity for the next generation. We will develop educational programs for building, installing, and managing bird feeders by themselves for the protection of birds.



POSCO E&C employees, KAWA, and local volunteers



Dog shelter after renovation

Environmental education

In response to strengthened environmental regulations and creating an eco-friendly construction environment, POSCO E&C conducts regular environmental education for on-site employees, chiefs and managers of suppliers, and field workers. The program includes courses on environmental regulations in relation to setting up a construction site, requirements for acquiring permits, and site environment management. All sites are subject to on-site education in the first and second half of the year.



Employees taking environmental education

In each site, an Environment Manager takes charge in inspecting 23 items, including dust, waste, noise/vibration, and water quality, and carrying out improvement activities every day to preemptively block environmental risks. Furthermore, we strive to prevent environmental pollution and thus contribute to environmental conservation. Before the start of work, all site employees and workers are required to sign a pledge to comply with environmental improvement activities. Best practices on environmental management discovered from sites are rewarded and supported to be implemented in other sites as well.

Environmental education in 2020

Course	Number of sessions	Number of participants
Setting up a construction site	20	200
Regular education (first and second half)	2	180

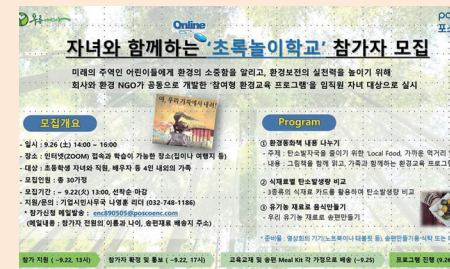
Eco-friendly certifications

POSCO E&C minimizes energy consumption by maximizing the insulation performance of buildings. We use eco-friendly materials and designs to supply eco-friendly living spaces with outstanding energy efficiency. We developed a building environment performance and energy analysis system using the BIM technology and guide residents on how to save energy by distributing related announcements and guidelines. We own 17 LEED* certifications, the largest number among domestic contractors. The Corporate Support Hub of Pangyo 2nd Techno Valley built in 2017 applied passive and active technologies, acquiring Zero Energy Building (ZEB) certification for the first time in the country. As such, we are continuously striving to save energy as well as develop techniques to reduce GHG emissions.

* LEED: Leadership in Energy and Environmental Design; a green building certification program of the U.S.

Green Play School

POSCO E&C established and operates the “Green Play School” to raise children’s environmental awareness. In cooperation with Green Asia Network, an environmental NGO fighting against climate change, the school offers educational programs associated with children’s play, magic, and creative reading. In 2020, over 30 children of employees of POSCO E&C and POSCO A&C participated in the children’s play. The play was about space explorers who went on a journey to save planet Gliese suffering from climate change. The child explorers encountered a Millennial Tree and a Bee and experienced the impacts of climate change. The story went on with the children proposing solutions to bring back life to the living things. Aside from children’s play, other programs include creative reading, and we plan to offer these programs to more children in local communities.



Green Play School admission poster



Green Play School participants pointing at the star

SOCIETY

Sustainable supply chain

Why is the management of sustainable supply chain important to POSCO E&C?

Organic cooperation with various suppliers is essential for a successful construction project. In other words, stable management and enhanced competencies of suppliers serve as the foundation of POSCO E&C's sustainable growth. We are creating social values by spreading the management philosophy of corporate citizenship throughout our supply chains, including small and medium-sized suppliers.

How does POSCO E&C manage its supply chain?

To fulfill the corporate citizenship slogan of "Build Value Together," POSCO E&C contributes to creating a robust industrial ecosystem based on two pillars: establishing a fair trade and conducting shared growth activities. In 2020, we newly installed a Mutually Beneficial Committee for Suppliers and expanded the scope of the standard supplier agreement recommended by the Fair Trade Commission to all areas. In addition, with POSCO Group's establishment of a POSCO-type ESG procurement system that meets corporate citizenship, POSCO E&C strives to enhance its ESG capabilities in the entire supply chain by providing ESG education and support to small and medium-sized suppliers.

>> Plans for the future

In July 2021, POSCO E&C will conduct pilot testing of the ESG evaluation tool for suppliers for the first time in the construction industry. Then starting from 2022, we will to apply the tool in evaluating and selecting suppliers, spreading the ESG management throughout the value chain.

Risks

- Occurrence of ESG risks due to selection of suppliers based on price competitiveness
- Large deviation of quality due to suppliers' competencies
- Suppliers' violation of laws and regulations
- Deterioration of the company's brand value

Opportunities

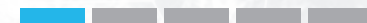
- Securing stable procurement and competitiveness in quality
- Establishment of a stable partnership by supporting the growth of suppliers
- Enhanced business stability in the entire project process
- Creating a positive social ripple effect through sustainable procurement

Risk analysis

Likelihood



Impact at the time of occurrence



UN SDGs



8.3
Promote development-oriented policies that encourage the formalization and growth of micro-enterprises and SMEs



9.2
Promote inclusive and sustainable industrialization

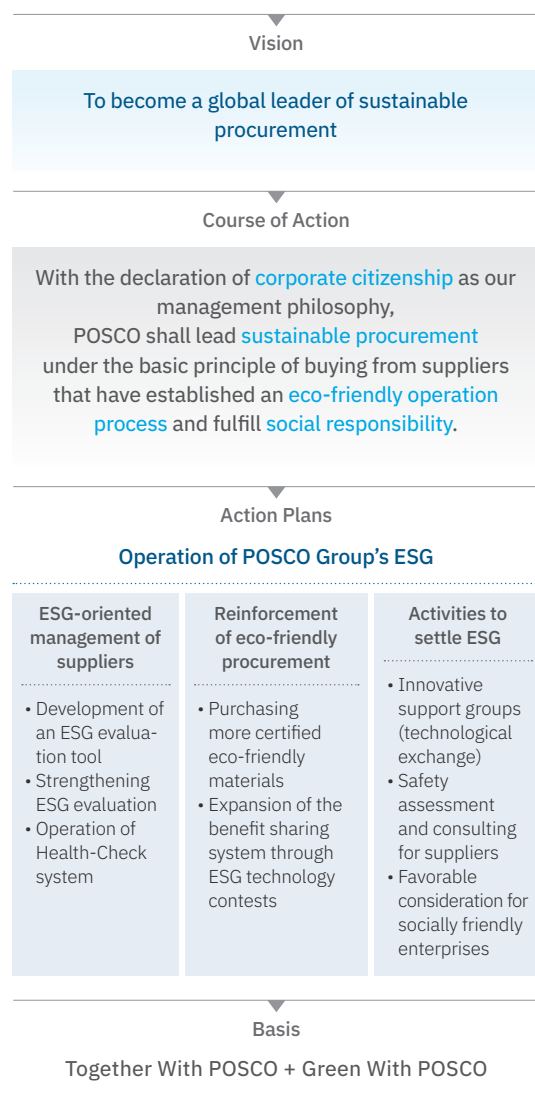


12.7
Promote sustainable public procurement practices

Sustainable Supply Chain Strategies

POSCO E&C strives to establish a sustainable supply chain based on its management philosophy of corporate citizenship. To embed ESG principles in the supply chain, we have established our own procurement system. With the implementation of ESG factors in the management of suppliers and procurement, we hope to enhance the ESG competencies of suppliers.

POSCO E&C's ESG procurement system



ESG-oriented management of suppliers

Supplier Code of Conduct

With an objective to have all suppliers of POSCO Group fulfill their responsibilities as global corporate citizens, POSCO established the POSCO Group Supplier Code of Conduct in June 2010. The POSCO Group Supplier Code of Conduct consists of seven goals and 21 tasks, which are the basic principles set by the UNGC, including human rights, labor, environment, and anti-corruption, with additional items on fair trade, quality management, and shared growth. This code of conduct regulates the basic principles which all suppliers of POSCO Group are obligated to comply with.

Summary of the POSCO Group Supplier Code of Conduct

Respect for Employees' Fundamental Human Rights	Voluntary employment prohibition of child labor; non-discrimination; working hours; wage-related laws; and humane treatment
Health and Safety	Workplace safety and compliance with industrial safety regulations
Environment	Management of hazardous materials, wastewater, solid waste and air pollution, prevention of pollution and resource saving
Ethics and Fair Trade	Business integrity; compliance with the Special Clause of Ethics Practice; fair trade compliance; and trust-based culture
Protection of Trade Secrets and Intellectual Property	Management and protection of confidential information; and protection of intellectual property
Quality Management	Quality control; change management; and mutual quality control among suppliers
Shared growth and Social Contribution	Shared growth and social contribution

Supplier registration and evaluation system

To establish a systematic supply chain, POSCO Group operates a three-step management process that includes: supplier registration screening, performance evaluation for contract execution, and follow-up management. Moreover, to realize ESG procurement in each step, we set a special term to evaluate the performance in safety and labor, give extra credit to social enterprises or enterprises owned or operated by persons with disabilities, and only allow the registration of businesses that have passed the safety competency evaluation.

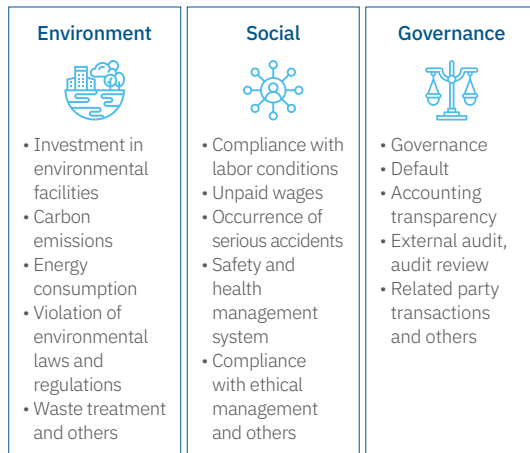
Step 1: Supplier registration	<ul style="list-style-type: none"> Disclosure of registration data Sourcing of excellent suppliers
Step 2: Performance evaluation	<ul style="list-style-type: none"> Supplier relationship management (SRM) evaluation (quarterly, annually)
Step 3: Follow-up management	<ul style="list-style-type: none"> Incentive, penalty Refresh sourcing / quality audit

ESG scoring items

Points added	Points deducted
<ul style="list-style-type: none"> Meeting for winning contracts and quotation support; reduction of construction period; excellent quality; replacement of bankrupt companies; excellent cooperation level (excellent shared growth activities) Safety and health management system; preventive activities for non-safety behaviors; status of facility safety management Additional points for benefit-sharing system Suppliers rewarded with outstanding employees 	<ul style="list-style-type: none"> Complaints Unpaid wage Inappropriate defect management Noncooperation Unfaithful fulfillment of contract

Construction industry's first ESG evaluation tool for suppliers

POSCO E&C signed an MoU with eCredible, a business credit scoring firm, for the ESG evaluation of suppliers. By developing a customized ESG management evaluation model for small and medium-sized suppliers, we plan to firmly settle ESG in the ecosystem of the construction industry. As soon as an ESG evaluation tool is developed, we will run a pilot test targeting POSCO E&C Honored Partners (PHPs). Starting from 2022, the ESG evaluation indicators will be utilized for evaluating suppliers and selecting PHPs.



Signing of an MoU for the development of an ESG evaluation tool

Implementing Health-Check system for suppliers

POSCO E&C implemented a Health-Check system for suppliers to induce their competency enhancement. The system indicates the competency levels of suppliers and visualizes their performance evaluation, financial status, and ESG level. We use these indicators in managing our suppliers, especially when evaluating their performance or selecting PHPs. As for suppliers, we let them acknowledge their status for self-improvement.



Health-Check result of a supplier

Reinforcement of eco-friendly and social procurement

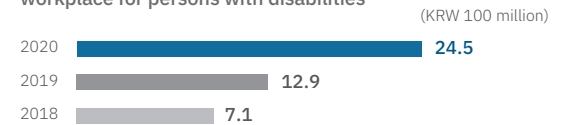
Purchasing eco-friendly materials

POSCO E&C expands the purchase of green products that minimize the use of energy resources and emissions of GHG and pollutants. In 2020, we purchased products certified with Korea Eco-Label and Good Recycled worth KRW 43 billion. In 2021, we plan to expand the purchase amount to KRW 100 billion. Going forward, we plan to upgrade our system by giving additional credit to suppliers that manufacture green products for partner registration and apply a 5% favored purchase acceptance rate upon bidding, giving an advantage in their price.

Buying from social enterprise

In July 2020, POSCO E&C adopted a system for buying from social enterprise to generate profit in the purchasing process and solve social enterprise issues at the same time. We give favorable consideration to social enterprises and enterprises owned or operated by the disabled in the areas of supplier registration, bidding, fee exemption, and shortened payment period.

Transaction amount with enterprises certified as standard workplace for persons with disabilities



Shared Growth

POSCO E&C practices the value of fairness, transparency, and ethics with its small and medium-sized suppliers in all projects under the management philosophy of corporate citizenship. By working hand in hand with small and medium-sized business partners, we hope to create a robust ecosystem in the construction industry.



Award certification for the win-win cooperation section at the Asia L&C Grand Prix 2020

Win-Win Growth Index: Best
Fair Trade Agreement Fulfillment
Evaluation: Excellent



Overview of five major programs for shared growth

Fairness 	<p><u>Instilling a “fair trade culture” to protect the rights and interests of suppliers and operate fair trade programs</u></p> <ul style="list-style-type: none"> • Use of the standard subcontract agreement; detection of unfair special terms and confirmation of the issuance of work orders; and operation of a Mutually Beneficial Committee for Suppliers
Coexistence 	<p><u>Operating “win-win-based bidding system” and “financial support system” to guarantee reasonable profits and increase liquidity</u></p> <ul style="list-style-type: none"> • Win-win-based bidding system: low-price bidding restriction system; market price competitive bidding; and preferential buying from social enterprises and enterprises owned or operated by the disabled • Financial support system: Interest-free loan for excellent suppliers’ management funds; Shared Growth Fund; and Win-win Loan
Empathy 	<p><u>“Creating a happy workplace” to provide welfare benefits to suppliers and activate communication with field workers</u></p> <ul style="list-style-type: none"> • Welfare benefits: Support of funeral supplies; the opening of POSCO Welfare Mall to suppliers; and rewarding outstanding employees of suppliers • Communication activities: On-site meeting with suppliers; operation of a communication channel for field workers; environmental conservation activities; and management of unpaid wages
Sharing 	<p><u>Expanding the scope of the “benefit-sharing system” through joint technology development with suppliers and by resolving disputes in construction sites</u></p> <ul style="list-style-type: none"> • Operation of a technology proposal platform; and holding technological cooperation contests
Symbiosis 	<p><u>Operating innovative support groups that support the weak areas of small and medium-sized suppliers: technology, safety, and work</u></p> <ul style="list-style-type: none"> • Training on Smart Construction technology; field practice; and support for ESG activities, such as safety, environmental, and society

Fairness: Fair trade culture

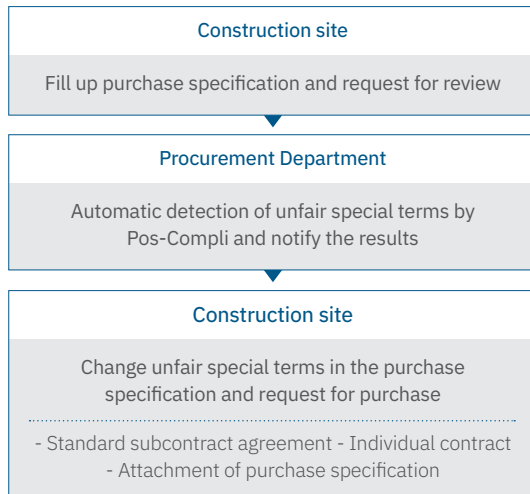
Mutually Beneficial Committee for Suppliers

For prompt and amicable resolution of disputes between construction sites and suppliers, POSCO E&C newly established the Mutually Beneficial Committee for Suppliers in April 2020. To ensure win-win growth with suppliers, we arranged the procedure of resolving disputes; in the event of a dispute, suppliers can directly request for a dispute resolution.

Automatic detection system for unfair special terms (Pos-Compli)

By utilizing AI, POSCO E&C formulated a system that detects unfair special terms in purchase specifications.

Process of detecting unfair special terms



Coexistence: Bidding and financial system

Abolishing lowest bidding of suppliers

In April 2020, POSCO E&C abolished the lowest bidding of the subcontract sector for the first time in the construction industry. Since then, we have implemented the “low-price bidding restriction system.” This guarantees the profits of contracting parties who are suffering from the COVID-19 pandemic and prevents quality issues and occupational accidents resulting from price competition. Low-price bidding restriction system disregards bids lower than the reference limit* but instead accepts bid that is right above the limit. Through the bidding system, we will fulfill our responsibilities as a corporate citizen that coexists with stakeholders. And we will continue to grow along with suppliers and provide customers with the best quality.

* [(Average of biddings within the budget excluding lowest biddings + Budget) ÷ 2] × 80%

Empathy: Creating a happy workplace

Reinforcement of communication and welfare benefits for suppliers

Through various systems that build a sense of unity with suppliers, POSCO E&C strives to create desirable construction sites to work in. We hold on-site meetings with the management and the chiefs of suppliers and operate a communication channel for field workers to promptly address the issues and difficulties of our suppliers. We also offer a wide variety of welfare benefits for suppliers, such as giving their employees access to our Welfare Mall, rewarding outstanding employees, and providing funeral supplies, to fulfill corporate citizenship for shared growth.



Welfare benefits for suppliers

Supply of funeral supplies for suppliers' employees (implemented in January 2019)	Opening of POSCO Welfare Mall to suppliers (implemented in June 2020)	Rewarding outstanding employees of suppliers (implemented in December 2017)
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Interest-free Loan for Excellent Suppliers' Management Funds

To help suppliers perform their business activities in a stable financial environment, POSCO E&C partnered with financial organizations to offer a variety of funding programs. Especially, in December 2020, we initiated the interest-free loan for excellent suppliers' management funds, striving to improve suppliers' liquidity.

Loan eligibility and period

Eligibility	Excellent suppliers of POSCO E&C
Amount	KRW 500 million (total of KRW 10 billion/year)
Period	Lump-sum repayment (1 year)

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Sharing: Benefit-sharing system

Benefit-sharing through technological cooperation

By enabling benefit-sharing through technological cooperation, POSCO E&C not only enhances the technological competitiveness of both the company and suppliers, but also strives to resolve disputes in construction sites. The benefit-sharing system, which is one of our key shared growth programs, encourages us to set common goals with small and medium-sized suppliers and conduct activities for improvements in our projects. Suppliers constantly suggest ideas through the technology proposal platform, in which the ideas then undergo an internal screening process before making an agreement for the execution and verification of task. Aside from benefit-sharing, POSCO E&C conducted technological cooperation contests that collected ideas from suppliers and associated them in the first and second half of 2020. Through contests connected with the benefit-sharing system, we improved the company's productivity and also provided actual compensation to suppliers, thereby creating a mutually-beneficial value. The technological cooperation contest for the first half was held with an aim to meet the needs on-site, and eight out of 52 ideas were selected. The theme for the second half was "Build Value Together," and 17 out of 158 ideas were selected. Suppliers that completed the tasks were rewarded with the benefits of making negotiated contracts, long-term supply and their products were reflected in the purchase specification. We increased the number of cases of benefit-sharing from 5 in 2019 to 11 in 2020 and supported the growth of suppliers with a reward worth KRW 10.2 billion.

Benefit-sharing system (2020)

Task	Supplier
① Improvement of the lights in underground parking lots using ALCOSTA	Neoslight
② Joint development of kitchen faucets	Royal & Co.
③ Development of precast concrete using ferronickel slag (HCS)	Kseung Construction Energy
④ Development of precast concrete using ferronickel slag (RPS)	KC Industry
⑤ Development of rock bolts using steel pipes for enhancing adhesion	Hankook Material
⑥ Development of high-performance, 5-inch, concrete pump pipes	Sean Corporation
⑦ Door finger guards for households	Living Paradise, Bestimber
⑧ Development of low-vibration, low-noise rock crushing method	Daedong Engineering
⑨ Development of prefabrication for exterior metal panel finish	N.I. Steel
⑩ Development of PM control system for underground parking lots	Systemvent
⑪ Standardization of installing metal products in multi-family residential	Noseong

Symbiosis: Innovative support groups

POSCO E&C launched the innovative support groups in August 2019 to support the innovative growth of suppliers by utilizing our competencies and infrastructure according to the needs of suppliers. We provide complimentary support in not only construction, infrastructure, and plant projects but also the weak areas of small and medium-sized suppliers, which are technology, safety, and work required for safety and procurement.

Eligibility	<ul style="list-style-type: none"> Suppliers that wish to participate in construction, facility, and material projects and small and medium-sized suppliers recommended by POSCO E&C
Program	<ul style="list-style-type: none"> Technological exchange: Technological cooperation with suppliers for coexistence and symbiosis Educational activities: Field practice, BIM education, and other courses for enhancing the suppliers' competencies ESG activities: Engagement in addressing social issues, including safety, environmental, and social issues
Management method	<ul style="list-style-type: none"> Technological exchange and safety activities: Suppliers selected by each support group Educational activities: Application to be submitted after announcement



Temporary structure safety training

SOCIETY

Sharing value with the community

Why is sharing value with the community important to POSCO E&C?

As a responsible corporate citizen and a member of society, POSCO E&C acknowledges and takes part in addressing various issues arising from local communities. Due to the nature of the construction industry, construction sites are located within the communities. The development of local communities gives a positive impact in our projects, which then leads to potential growth of the company, forming a virtuous cycle. We strive to make the local communities develop for the better.

How does POSCO E&C share value with the community?

Based on the values of Worth, Impact, Touching, and Harmony (WITH), POSCO E&C's employees relate with diverse social issues arising from local communities and voluntarily seek for solutions. POSCO E&C carries out projects that pull off collective impact through cooperation with POSCO Group, the central(local) governments and non-profit organizations and strives to contribute to solving domestic and international issues related to employment, housing, education, medical services, and more.

>> Plans for the future

In 2021, POSCO E&C plans to focus more on strengthening CSR activities that puts considerations on social and environmental impacts. This year will mark the commencement of carbon-neutral activities from an ESG perspective. Through our partnership with the Korea Coast Guard, we will also function as a company that protects the environment. We will engage in cleaning up the marine environment, campaign for raising public awareness on marine pollution, and offering environmental education programs for adolescents. Our partnership with 22 fire stations nationwide will contribute to finding ways to ensure the safety of people. Furthermore, with POSCO Group's collective impact design (CID) projects initiated to enhance social impact, we plan to improve the residential environment through energy saving systems and support job-matching for youths discharged from care facilities.

Risks

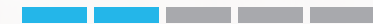
- Occurrence of various social and environmental issues in regions near construction sites at home and abroad
- Increased demands for CSR activities

Opportunities

- Contribution to the development of local communities by addressing social issues
- Realization of corporate citizenship by carrying out CSR activities domestically and internationally

Risk analysis

Likelihood



Impact at the time of occurrence



UN SDGs



4.4 Substantially increase the number of adolescents and adults with relevant skills, including technical and vocational skills, required for employment, decent jobs, and setting up a business



8.9 Contribute to creating jobs and promote local culture and products



11.1 Ensure access for all to adequate and safe housing and basic services and upgrade slums



14.2 Protect and restore coastal and marine ecosystems for sustainability

Social Contribution Promotion Strategies

As a member of society, POSCO E&C takes the lead in cultivating a culture of voluntarily participating in addressing social issues. In order to create a better world and practice sharing and coexistence as a corporate citizen, we contribute to addressing various domestic and international social issues such as employment and education with our employees' volunteering activities and in cooperation with government agencies, local governments, non-profit organizations (NPOs), and other external organizations.

CSR VISION

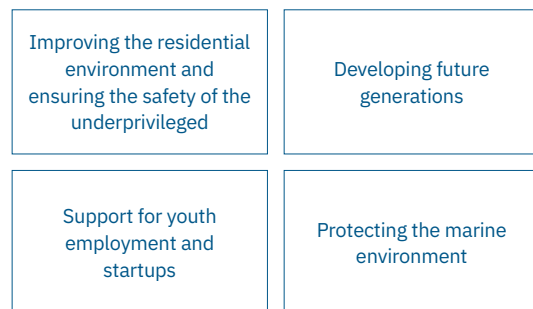
Through strategic and creative CSR activities to, we:



Goals (WITH POSCO)



Four Directions



Contributing to local communities through public-private cooperation

POSCO E&C communicates with its stakeholders to discover social issues and suggest solutions based on partnerships. To make this possible, we carry out projects based on collective impact* and build partnerships with government agencies, local governments, and NPOs, to develop cooperative projects and monitor the procedures. In order to effectively address issues arising from local communities, we hold evaluation sessions and thus acknowledge what to improve and take appropriate actions.

Category	Organization	Project details	Year of contract
Government agencies, local governments, and relevant organizations	Ministry of Culture, Sports and Tourism	IT and cultural education for children and adolescents and cultural exchanges for residents	2012
	Korea Coast Guard	Marine environment conservation project	2020
	National Fire Agency	Improvements in residential environment for fire prevention	2013
	Jungbu Regional Employment and Labor Office	Job mentoring for university students and construction education for middle school students	2019
	Incheon Metropolitan City	One&One activities for regional children's centers	2010
	Incheon Metropolitan City Office of Education	Construction education	2016
	Korea International Cooperation Agency (KOICA)	Skilled construction worker training program for youths in Bangladesh	2021
	Incheon Facilities Corporation	Revitalization of parks in Songdo International Business District	2015
Medical institution	Inha University Hospital	Overseas medical support	2011
NPOs	Korean Red Cross	Blood donation	2006

* Commitment of a group of actors from different sectors to a common agenda for solving complicated social issues.



Signing of an MoU with the Korea Coast Guard in 2020

Improving the Residential Environment and Ensuring the Safety of the Underprivileged

Improvements in the residential environment for fire prevention

Since 2013, POSCO E&C has been working with the National Fire Agency for nine years with goals since 2013 to improve the residential environment of the underprivileged classes and prevent fire accidents. Our employees in the fields nationwide and regional firefighters formed “a House of Hope Volunteer Group” to visit households that are exposed to fire risks within the region. The group performs necessary repairs and installs fire prevention devices. In 2020, eight of our sites and eight fire stations installed fire safety kits consisting of smoke alarms, heat detectors, and powder fire extinguishers in 120 households exposed to fire risks. We also replaced old electric switchboards, electric wires, wallpapers, and floor coverings with new ones. We engage in these activities for the better lives of residents and the development of local communities.

Safety keeper activities for seniors

For the first time among domestic construction companies, POSCO E&C project sites and fire stations are jointly carrying out safety activities in connection with a 119 safety call system to prevent accidents that may occur to senior citizens. Last year, nine of our sites and eight fire stations conducted daily safety education for 450 senior citizens and distributed safety supplies, such as wristbands that are linked to the 119 safety call system and anti-slip mats.

Running total of activities for improving the residential environment to prevent fire accidents



Home repair for 251 households

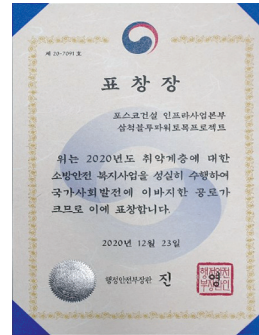
Installation of fire extinguishers in 63 streets

Installation of basic fire safety devices in 2,282 households

(From 2013 to 2020, cumulative)

Regional fire safety activities

To prevent fires and minimize damages from a fire in local communities, POSCO E&C and with the regional fire stations, conducts fire safety activities. In 2020, the Pangyo THE SHARP Forest site signed an MoU with Bundang Fire Station to carry out safety governance for the reinforcement of fire safety management and conducted joint fire drills. We also utilize the CCTVs installed in tower cranes to monitor nearby fire accidents. In case of a fire, we use drones to share the situation with fire stations and analyze the status and progress. Construction equipment, such as water spray trucks and excavators, is also used to suppress fire from an early stage.



Commendation by the Minister of the Interior and Safety

Cooperative projects of POSCO Group

To improve its social impact, POSCO E&C promotes the Collective Impact Design projects along with the POSCO Group affiliates. Eco Dream project, participated by POSCO A&C, POSCO O&M, and POSCO ENERGY, aims to improve the residential environment of those who lack access to energy. We install energy saving systems in their homes, thus encouraging their self-reliance and contributing to carbon reduction. In addition, we replace old fire doors and shutters in schools for the disabled needs to prevent the spread of fire and thus secure the safety of students.



Launching ceremony of the 9th House of Hope Volunteer Group

Outreach of Community Murals in Baedari Village, Incheon

As part of its project in improving the environments of deprived regions, more than 60 employees of POSCO E&C volunteered to decorate Baedari Village in Dong-gu, Incheon. They used a trick-art method to paint a bookshelf filled with books on a stairway in the village to represent Secondhand Bookstore Alley, the symbol of Incheon. They also fixed the old and faded murals on the village underpass that had been painted in 2012.

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Developing Future Generations

One&One activities for Incheon regional children's centers

Since 2011, POSCO E&C has reached 10 years of one-on-one affiliation (One&One) between more than 30 of its departments and children's centers in Incheon. One&One activities include teaching school subjects, enjoying fun activities with the children, repairing in old bathrooms and kitchens that require hygiene and installing fire retardant wallpapers for fire safety. We also partnered with the Incheon Metropolitan City Office of Education to conduct an online invention program to support children's inventive activities and scientific explorations. As such, POSCO E&C will continuously support the healthy growth of the children in Incheon.

Dream Tree Scholarships for teenagers

Since 2012, as part of developing our future generation, POSCO E&C has been providing Dream Tree Scholarships for the teenagers of low-income families to support their learning activities. In 2020, we provided scholarships of KRW 30 million in total to 35 students in Incheon and Pohang to support their dreams and hopes.

Number of children supported
in Incheon regional children's centers

12,070

(From 2011 to 2020, cumulative)



Dream Tree Scholarships for teenagers

KRW 252 million

(279 students from 2012 to 2020, cumulative)



Music program for elementary school students in need of care

POSCO E&C operates music program for elementary school students from the underprivileged of the community, including single-parent and multicultural families, who are in need. We teach them how to play the ukulele, violin, and other musical instruments and provide them opportunities to develop their musical skills. Once the program is over, we donate the musical instruments to the school, so that the school can continue the program as after-school class.

Construction education for middle school students

Since 2016, POSCO E&C has been offering construction education to encourage adolescents to explore their dreams. Our employees and university student volunteer group make visit to middle schools and give lectures on the basics of construction and share their vivid experience in construction work. As of 2020, over 13,000 students of Incheon and other regions near our construction sites have participated in this program.



Music class for children in need of care in Yangji Elementary School, Incheon (October 15)

Support for children and adolescents in Group Homes

POSCO E&C engages in relieving the achievement gap in education and emotional care for children and adolescents in Group Homes in Incheon. Our volunteer groups and university student volunteer group support the holistic development of children and adolescents. They teach English, science, and drone operation, as well as providing emotional care activities, such as life design mentoring and comprehensive psychological tests. We also participate in the Do Dream project to support the employment and social adjustment of youths discharged from care facilities.

* Group Home: A home-style care facility to protect children and adolescents from abusive family environments.

Happy Builder, university student volunteer group

In 2011, POSCO E&C launched Happy Builder, a volunteer group of university students, for the first time among the construction companies to develop global leaders of sharing. The program has been participated by 441 students so far. In 2020, we operated the 10th Happy Builder under the slogan of "Shape the World with Your Talent." The 10th batch participated in activities such as residential environment improvement for fire prevention, construction education for middle school students, and production of online Korean culture learning contents for Vietnamese.



Volunteers of the 10th Happy Builder

Support for Youth Employment and Startups

Developing overseas youths as skilled construction workers

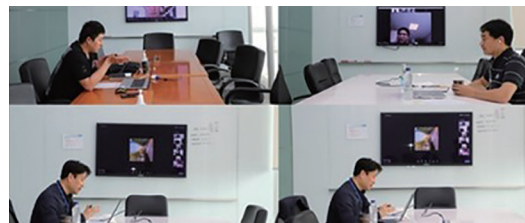
With the goal to support the self-reliance of youths in developing countries and create jobs, POSCO E&C operates the construction worker training program. Since 2018, we have operated vocational training centers that teach basic construction work including masonry, plastering, and carpentry for youths in Myanmar, Indonesia, and other regions where our overseas sites are situated. In 2020, due to the difficulty in operating the centers during the COVID-19 pandemic, we developed a mobile application for skilled construction workers to train the youths in Bangladesh. 160 youths of the Matarbari region, Bangladesh participated in the training; 67 among them were acknowledged for their outstanding performance and thus were hired for the Matarbari site of POSCO E&C. The construction worker training program for youths in Matarbari is operated by POSCO E&C and Research and Business Foundation. In 2021, the program was selected as an Inclusive Business Solution (IBS) program of Korea International Cooperation Agency for the first time among construction companies. We plan to offer online course for the program to 500 youths in Matarbari, Bangladesh until 2022 and recruit over 300 trainees for the two years to support their self-reliance and contribute to the local economy.



Mobile application for developing skilled Bangladeshi construction workers

Job mentoring for youths

POSCO E&C has been operating a job mentoring program for university students since 2019. We partnered with Jungbu Regional Employment and Labor Office as part of our effort to solve youth unemployment and offer education for youths on designing their future and exploring their jobs. Due to the impact brought about by the COVID-19 pandemic, the mentoring program was conducted online, where our employees introduced the nature of architectural design, infrastructure design, plant engineering, R&D, management planning, and public relations, as well as job-seeking techniques to 50 university students of Incheon and the Seoul metropolitan area.



Contact-less job mentoring for youths

Support for the startup of youths in the construction field

POSCO E&C operates a startup support program to solve unemployment. By combining construction technology required by the company with the company's needs and the needs of future entrepreneurs, we held startup competitions for the field of next-generation construction. We provided a mentoring program led by our field workers and selected the best team from the final presentation. Winners were awarded and granted an office space. In 2021, we plan to give the youths opportunities to participate in technological cooperation contests for suppliers as well. They will be provided with mentoring programs, and excellent proposals with feasibility will be compensated with practical rewards.



Startup competition for field of next-generation construction

Interview with the Outstanding Trainee of the Skilled Construction Worker Training Program (Bangladesh)

"During COVID-19, I was given the opportunity to take POSCO E&C's online skilled construction worker training program. The course consisted of online classes on construction technologies, brief introduction of Korea, basic Korean language, and safety education. I participated in practical training through video conference. I was able to complete the program with an outstanding grade by participating in the classes. I was then hired for the Matarbari site of POSCO E&C. POSCO E&C helped me realize my dream and set new goals. POSCO E&C helped me realize my dream and set new goals at a time when it was difficult to find a job. I hope more educational opportunities are given to Bangladeshi youths in the future, so that they can realize their dreams the way I did."

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Mohammed Suman, trainee of 2020

Protecting the Marine Environment

Idea contest for preventing marine pollution

Since the signing of an MoU with the Korea Coast Guard in November 2020, POSCO E&C has been engaging in various projects to protect the marine environment. To encourage public participation in our engagement, we held the first idea contest for preventing marine pollution. The contest was held in three categories: prevent illegal oil discharges from vessels and marine facilities; practice carbon neutrality at work and home; and keep the sea trash-free. A total of 288 entries were submitted for the contest. The winning work will undergo consulting and idea development processes and will be implemented our 2022 policy.

Campaign for raising public awareness on marine pollution

POSCO E&C holds a campaign to raise public awareness of marine pollution. To deliver the gravity of marine pollution and induce public interest in keeping the marine environment clean, we uploaded a promotional video on POSCO E&C's official YouTube channel. In the video, President & CEO Han Sung-Hee of POSCO E&C, and Commissioner General Kim Hong-hee of Korea Coast Guard stressed the importance of public interest and participation in reducing waste in our everyday lives to maintain a clean marine environment.



Protecting the marine environment (YouTube)

Clean ocean volunteer program

POSCO E&C and the Korea Coast Guard jointly launched a “clean ocean volunteer program” for engaging in environmental conservation activities in four coastal regions of Korea. In June 2021, we conducted coast cleanup activities in the Sorae Port area together with the Incheon Coast Guard. More than 80 volunteers, including POSCO E&C employees, joined the program. Aside from manpower, heavy equipment were brought into the area to collect 40 tons of marine debris on mudflats and beaches. In addition, we donated an emergency preparedness storage to the Sorae Volunteer Marine Pollution Response Brigade, held a signboard hanging ceremony, and decorated the walls with murals. The storage will have oil fences, oil absorbents, and other supplies for handling marine disasters that can be freely used by fishermen.



Coast cleanup activities at Sorae Port, Incheon



Murals on the emergency preparedness storage

Voluntary Participation of Employees

Growth of 1% sharing program

POSCO E&C employees participate in the 1% sharing program of POSCO Group by donating 1% of their salaries. The company donates the same amount raised by employees for a year to the POSCO 1% Sharing Foundation in a matching grant method. In 2020, 99.6 percent of employees took part in the donation, and the fund total of KRW 1.2 billion raised by the employees together with the company's matching fund is being used for social contribution activities of 2021.

Caring for our neighbors through talent contribution

In 2015, POSCO E&C launched talent donation volunteer groups to engage in a variety of volunteer activities. In 2020, we operated 35 groups (940 volunteers), and all executives participated as advisors to offer their support. Aside from donating their talents in improving the residential environment, drone education, and mentoring for designing future, the volunteer groups are engaged in 12 different fields to enhance the safety of senior citizens and care for the underprivileged across the nation.

Idea proposal contest for social contribution

With the prolongation of the COVID-19 pandemic, POSCO E&C held an idea proposal contest with an aim to strengthen its fulfillment as a corporate citizen through contact-less social contribution. We received a total of 146 entries: 30 were job-related, 39 on future generations, and 8 on the disabled. The winning proposal was the idea of donating the talents of our employees with knowledge and experience in building repair and interior design to maintain financially-struggling facilities for persons with disabilities. Excellent proposals are planned to be reflected in our social contribution projects for 2021.

PEOPLE

Safe workplace

Why is a safe workplace important to POSCO E&C?

Safety and health is the highest value for achieving mutual respect. In particular, the construction industry is exposed to more industrial and safety-related accidents compared to other industries. Moreover, with the enactment of the Serious Accident Punishment Act and changes in social awareness, safety-related accidents are great risk factors that threaten a company's sustainability.

How does POSCO E&C create a safe workplace?

All POSCO E&C employees, including the CEO, abide by the uncompromisable principle of "safety first" and aim for "zero serious accidents." In this regard, POSCO E&C operates smart safety solutions in high-risk sites for concentrated management. We also established a site monitoring system and are upgrading its function as a control tower. Moreover, to enhance the safety of suppliers, we support the practice of their own safety system and operate a safety communication channel for suppliers and their workers.

>> Plans for the future

In order to settle a responsible safety culture, POSCO E&C plans to strengthen its safety management activities and further advance the smart safety solutions to minimize repeated disasters caused by human error.

Risks

- Increased managerial responsibility in line with the enactment of the Serious Accident Punishment Act
- Limited managerial activities due to violations of regulations related to safety and health

Opportunities

- Settlement of a voluntary safety culture based on empathy and communication
- Creating a safe and healthy business environment for every employee and worker

Risk analysis

Likelihood



Impact at the time of occurrence



UN SDGs



3.4 Reduce premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being



8.2 Achieve higher levels of economic productivity through diversification and technological upgrading and innovation

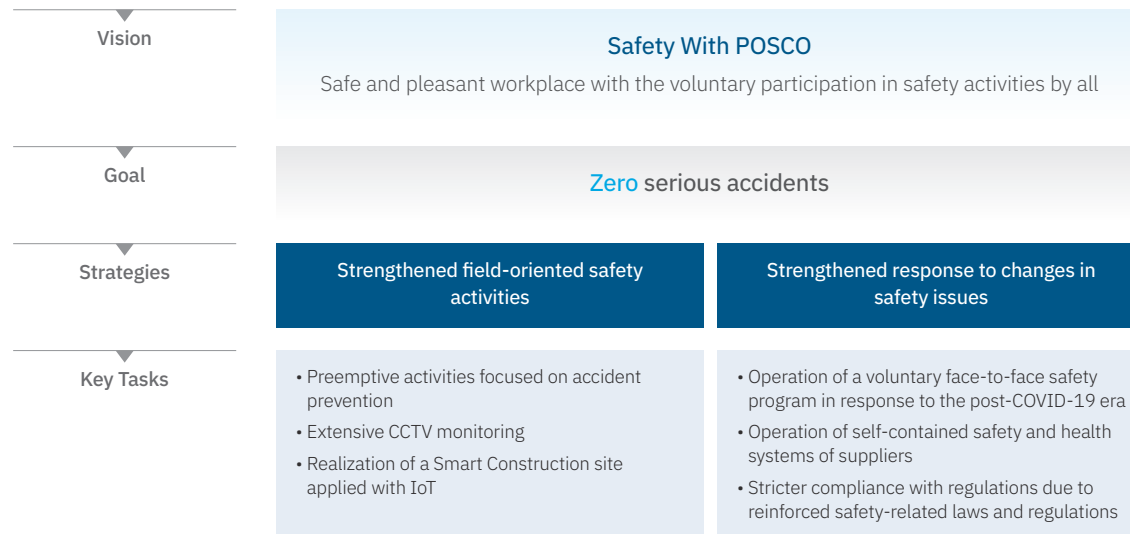
Safety and Health Management Strategies

Safety management strategies

POSCO E&C continuously improves the safety and health management system with PDCA (Plan-Do-Check-Act) cycle based on CEO safety and health policy, thereby ensuring a workplace safety and health voluntarily system.

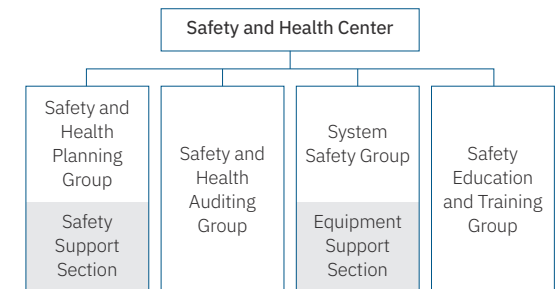


Safety and Health Goals



Safety management organization

Centering on the Safety and Health Center (division head-level center head, 4 groups, 2 sections, 40 persons) directly managed by the CEO, POSCO E&C fulfills safety management with our expertise in safety duties. 440 safety and health managers are serving in our 135 domestic and overseas sites. For responsible safety management of construction sites, we have a greater proportion of regular positions for safety and health managers than the legal standard, striving to strengthen our execution capabilities of safety management.



ISO 45001 certification

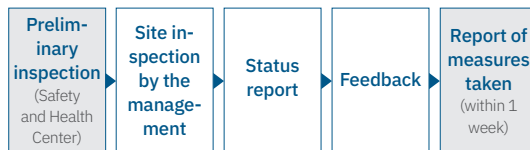
* The ISO 45001 certification applies to the headquarters and all domestic and international sites.

Efforts to Eradicate Serious Accidents

Safety management activities of the management

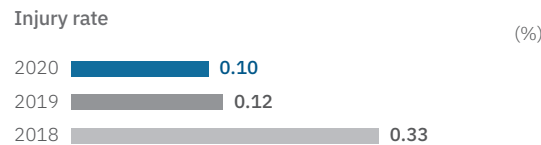
Based on the commitment to establishing a safety culture and prioritizing safety, the POSCO E&C management visits the construction sites and evaluates the results of safety practices. In monthly meetings, the CEO, who makes visits to the sites twice a month is informed of the circumstances of the accidents that have occurred and measures to prevent recurrence. In 2021, as part of our efforts to comply with legal obligations, we have set measures not only to prevent the recurrence of accidents, but also to review the performance outcomes. We also implemented a process for reporting the results of supervision and actions taken by the Ministry of Employment and Labor. In this way, the project manager reports the results of supervision to the CEO and confirms the actions of the center. The management will continue its active participation in safety management and create a safe workplace.

Site inspection process for preventing disasters



Installing CCTVs without blind spots

POSCO E&C spares no effort to strengthen safety management in blind spots and determine the cause of safety-related accidents to establish countermeasures and prevent the recurrence. We have been supporting the real-time monitoring of sites through CCTVs for the first time in the domestic construction industry since 2012. In line with social distancing measures due to COVID-19, we have over 130 CCTVs on site for about 70 projects to-date, enabling contact-less site support. In order to comply with the POSCO Group policy, we have been installing CCTVs since 2021 to cover all areas without leaving any blind spots and monitor them in real-time. We have mobile camera installed to ensure safety, especially for high-risk work. In the second half of the year, we will be distributing portable body cameras to all on-site employees to create an atmosphere that puts safety first at all times.



Establishment of smart safety solutions

To prevent repeated disasters caused by human errors, POSCO E&C plans to apply more IoT-based smart safety solutions on sites. As of 2021, we are operating 12 pilot sites for running seven smart safety solutions, including collision avoidance systems for industrial vehicles. Through this, we plan to supplement the problems of each solution and build an integrated solution, which will be expanded to all sites from 2022.

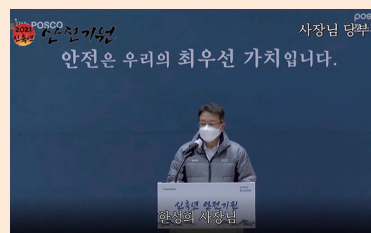
Enhanced safety management of construction equipment

POSCO E&C conducts special and regular inspections on a semi-annual basis to evaluate the performance of high-risk construction equipment, including tower cranes, construction lifts, and pile drivers. We also share an operational guide for ten major construction equipment to prevent related accidents. Our efforts continue to minimize defects caused by the aging of equipment. In 2021, we have strengthened the policy of securing at least 50 percent of tower cranes that have been manufactured no longer than five years ago, instead of ten years ago, to minimize defects caused by aging of equipment. We also assigned more safety managers in charge of equipment in larger sites to enhance the quality of equipment management on site.

CEO's Message for Safety in 2021

"It is time we look back on ourselves and check if our thoughts and actions are changing along with the changes in the managerial environment brought about by the pandemic. Old habits of thinking "accidents in construction sites are inevitable," or "safety standards cannot be met due to the nature of process and cost," should be discarded immediately and replaced with a new mindset that safety should come first above anything else. I hope the uncompromisable principle of "Safety First" becomes the pride of POSCO E&C. I ask for all of your devotion in making this year a year of zero accidents."

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Performances of zero accident period at overseas sites

(Unit: 10 thousand hours)

Country	Project	Zero accident period
Philippines	Masinloc Coal-fired Thermal Power Plant	2,000
	JG Summit PKG-1	1,000
	THE SHARP Clark Hills	600
Bangladesh	Matarbari Power Plant	400
Indonesia	Hasang Hydro Power Plant	300
Vietnam	LSP Land Development (PKG L)	200

Enhanced Practice of Safety Management

Preemptive management of unsafe behaviors

Since July 1, 2020, POSCO E&C has been operating a preemptive management of unsafe behaviors. The objective of this system is to prevent and manage the top three frequently-occurred accidents in construction sites, including falls, falling objects, and collisions, and thus prevent serious accidents. It also aims to increase the participation rate of safety activities led by suppliers and block risks of accidents. We selected eight details of unsafe behaviors that result to the top three accidents in order to carefully manage them on site. In an event of unsafe behavior, we carry out immediate correction and educational sessions. The occurrence is also registered to our system for monitoring. Based on such efforts and activities, we are creating an atmosphere which all managers on sites can participate in this system, a system that ensures a safe workplace.

Details in the preemptive management of unsafe behaviors

Classification		Details
Falls	Not wearing a safety harness	1) Safety harness not fastened when working at heights over 2 meters 2) Construction equipment operator on a slope not wearing a safety harness
	Lifting work	1) Approach of workers (signal givers) within the danger zone when lifting up an object over 1.5 meters 2) Approach of workers (signal givers) within the danger zone when lifting down an object from 3 meters ※ For temporary approach to use guide ropes, workers should grab the rope and move away
Falling objects (collapse)	Prevention of collapse of construction equipment	1) Faulty installation of outriggers (insufficient length, imbalance) 2) Faulty installation of outrigger base on soft ground
	Loading and unloading of materials	1) Approach of workers within the blind spots at the front and back of the equipment operator 2) Approach of workers within the range where materials may collapse or fall
Crushing (collision)		

Stricter safety compliance with regulations due to reinforced safety-related laws and regulations

POSCO E&C detects and evaluates sites' safety level for enhancing safety compliance. In addition to complying with laws and regulations, we conduct our own safety evaluations. The evaluation items consists of on-site safety activities and site management. In 2020, our compliance system has developed due to increased safety regulations. Thus, we have all of our sites conduct self-assessment, expanding the proportion of legal requirements such as documents related to high-risk work. We also obligate online education and distribute a compliance evaluation sheet to the site, encouraging self-checks to be conducted at least once every half year.

Operation of the Industrial Safety and Health Committee

All sites of POSCO E&C operate the Industrial Safety and Health Committee at least once every quarter, according to legal standards. The Industrial Safety and Health Committee is a regular meeting of the employer and employees to discuss and make decisions on important matters on safety and health. The objective of this meeting is to prevent industrial accidents through joint efforts and thereby increase productivity and employees' satisfaction.

Operation of the Safety Strategy Budget

To fulfill the company's management philosophy of "Safety First," POSCO E&C allots extra budget for safety to ensure there are no issues related to financial matters in conducting safety activities. In this regard, we will operate the Safety Strategy Budget from 2021 to encourage timely safety activities and eliminate concerns on profit and loss of projects. Projects that are granted with the Safety Strategy Budget can exclude that amount from the profit or loss of the project, which will reduce the burden of additional costs when conducting safety activities.

Safety suggestion system

POSCO E&C operates the safety suggestion system to discover and apply creative ideas of employees in preventing safety accidents at construction sites. Employees can submit any idea that contributes to preventing accidents, such as enhancing safety awareness and improving designs and safety facilities. We reward the employees for each stage, from submission of suggestion to selection and implementation, with the goal to encourage their participation. During the suggestion period* in 2020, we received a total of 3,675 suggestions, in which 14 of them (8 department suggestions, 6 personal suggestions) were selected as excellent ideas. We are actively implementing the excellent ideas in our sites to create a safe workplace along with our employees.

* November 2019 to October 2020

Strengthening Safety Competency

Safety communication channel for suppliers

POSCO E&C operates a safety communication channel for suppliers and guarantees the right to refuse risky work to ensure a safe working environment. When workers observe unsafe situations, are required to perform unsafe work, or have ideas that will reduce serious accidents, they can inform the case anonymously through the safety communication channel. Moreover, when they are ordered to perform unsafe work on site, they can exercise the right to refuse risky work. When they are denied from exercising their rights, they can report the said matter as well. The safety communication channel is operated in various means, such as e-mail, QR code, and POSCO E&C website for the convenience of the workers. We will continue to prioritize the safety and health of workers as our greatest value and strive to create a happy workplace for all.



Poster for POSCO E&C's safety communication channel

Support for establishing a voluntary safety system for suppliers

For suppliers to secure safety and health competencies, POSCO E&C supports their establishment of a voluntary safety system. We conduct safety and health competency evaluation on suppliers regarding key types of construction work where accidents occur frequently. We expanded our support from 108 companies of 3 types of construction work to 243 companies of 12 types of construction work in 2021, inducing the interest on safety of the suppliers' management and guiding them with methods on how to manage sites. We also adopted a supplier training certification system allow access only to site managers who completed the safety training, aiming to enhance the competencies of site managers.

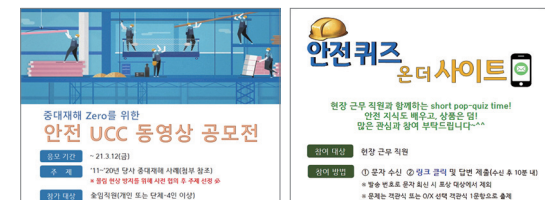
Developing the next generation of construction safety experts

Through the agreement between universities in Incheon and the Seoul area in 2021, POSCO E&C aims to develop the next generation of construction safety experts. The industry-academic cooperation is a 16-week course on the practice of safety management targeted for juniors and seniors of the Department of Safety Engineering of Incheon National University. We also plan to build more ties with other universities, including Seoul National University of Science and Technology and Pukyong National University.

Classification	Week	Program
Practice of safety management for safety managers (16 weeks)	1	Safety management system of companies
	4	Construction equipment safety and their smart features
	8	Temporary construction practice and acquiring a CPR certification
	10	On-site safety and health activities
	16	Completion ceremony and presentation of safety suggestions

Operation of contact-less educational contents on safety

To increase the effectiveness of safety training and make sure that all employees, site managers, and field workers of POSCO E&C and suppliers receive education, POSCO E&C is developing contact-less contents on safety by utilizing UCC videos, virtual reality (VR), and social media. UCC videos on safety covers not only the safety policy of POSCO E&C but also the cases of serious accidents that occurred in the company and everything else related to safety in the construction industry. The videos deliver the possibility of dangerous situations in construction sites. We hold a contest on UCC videos on the first and second half of the year to determine the risk factors embedded in the construction industry and promote a safety culture on sites through voluntary safety activities of employees and suppliers. Furthermore, in the second half of 2021, we will be implementing an on-site education program to provide safety and health education to suppliers who lack time, space, and manpower. The program features lectures through safety UCC videos, as well as experiential education through portable VR. We developed online educational contents, such as Safety Quiz Show and social media quizzes, and posting pop-ups employees' computers every week to enhance the safety awareness of all employees. Our efforts will continue to help our employees consider safety as the greatest value.



Safety UCC video contest poster

Announcement for the pop-up quiz

Enhanced health management due to COVID-19

Due to the outbreak of the unforeseen COVID-19 pandemic, 2020 was a year when disinfection and health management were more critical than ever. POSCO E&C carries out various activities related to health management for not only our employees and field workers but also the local community, including residents and medical staff.

On-site safety and health support

In accordance with to the Occupational Safety and Health Act, POSCO E&C appointed health managers, such as occupational hygiene managers and nurses, that fit the legal eligibility. Our objective is to provide workers with safe work environment and promote their health through guidance on the posting and keeping of material safety data sheets (MSDS), follow-up measures on health diagnosis of workers, management of work environment, seasonal health management, and various health-related education.

Special management on safety and health due to COVID-19

POSCO E&C operates its sites and sets a standard for working from home in line with the government's social distancing policy regarding COVID-19. We ensure that our meetings, education programs, and business trips are conducted in compliance with social distancing levels. Moreover, for the safety and health of our employees dispatched overseas who were scheduled to return home but have been delayed for months according to restrictions, we acquired special approval from the government to send them masks, along with thermometers, nutritional food, and other medical supplies.

Therapeutic counseling program

For employee's stress management and psychological safety. POSCO E&C partnered with Mind Forest, a therapeutic counseling center, to provide counseling programs. The counseling sessions handle all sorts of topics desired by the applicant, including personal matters and work life, as well as stress management and psychological tests.

Health Management from Mobile Clinics



POSCO E&C Hamyang-Changnyeong Expressway section 10 installed and operates a mobile clinic EX-THRU for the first time among domestic construction sites. Through the one-stop service of the clinic, we identify workers with COVID-19 symptoms and older workers with health issues. Based on the checkup result, we determine whether each worker is eligible to enter the sites to prevent the spread of COVID-19 and safety-related accidents that may occur to older workers. We also built a rest area near the clinic for workers with mild symptoms to take a rest before getting back to work. In ordinary times, the rest area is open to the public for residents to stop by and take a rest when needed. Health management through mobile clinics was selected as an innovative idea for the Construction Safety Innovation Awards 2020 hosted by Korea Expressway Corporation, for preventing accidents in construction sites and contributing to the settlement of a safety culture. Proven by such achievement, we will continue to take care of the health of workers and residents.

/ SPECIAL / ISSUE /

Donation of Modular Rest Area for Medical Staff



As the COVID-19 pandemic lingers, frontline medical staffs are suffering from exhaustion but little has been done to address their limited rest areas. In this regard, POSCO E&C utilized its resources to build a modular rest area and donated it to the Bundang Public Health Center. The modular rest area is designed with a grid pattern featuring the nature of construction steel materials, which gives consideration to not only design but also the environment. Moreover, the integral module was prefabricated, in which the structural, interior, and exterior materials applied with our smart construction method are put together from the factory, guaranteeing simple installation and assembly from the site. This reduced the construction period from 40 days to two days, while maintaining the outstanding quality. As such, we are using our professional competencies in actively resolving the issues within the local community.

PEOPLE

Happy employees

Why is the happiness of employees important to POSCO E&C?

Employees are the most important growth fundamentals of a company. Competition to attract competent talents among companies has become more intense in a world with low birthrate and aging society. Also, with more people putting value on work and life balance, efforts of the company to support the happiness of employees have become more crucial than ever.

What does POSCO E&C do for the happiness of employees?

The third principle of the POSCO Corporate Citizenship Charter is to “foster a happy and fulfilling workplace by creating a corporate culture based on trust and creativity.” In this regard, POSCO E&C provides overall support in terms of physical safety, psychological stability, and life stability of our employees. We also established a master plan system for talents of key technologies to develop competent employees. In particular, we strive to create an environment where employees can work with psychological stability in the post-COVID-19 era and support the practice of corporate citizenship in our daily lives.

>> Plans for the future

POSCO E&C will create a contact-less work environment amid the spread of COVID-19 and support its employees to work in a safe and amicable environment. We will also activate various communication channels to guarantee the happiness of all employees.

Risks

- Decline of work efficiency due to demotivated employees
- Weakened competitiveness due to competent manpower leakage
- Increased cost for attracting and maintaining talents

Opportunities

- Securing corporate competitiveness by attracting talents of diverse fields and encouraging their continuous service
- Attracting outstanding talents through improved company reputation
- Continued business growth through enhanced expertise of employees

Risk analysis

Likelihood



Impact at the time of occurrence



UN SDGs



4.4 Substantially increase the number of adolescents and adults with relevant skills, including technical and vocational skills, required for employment, decent jobs, and setting up a business



5.1 End all forms of discrimination against women and girls at every workplace



8.8 Protect labor rights and promote safe and secure working environments for all workers



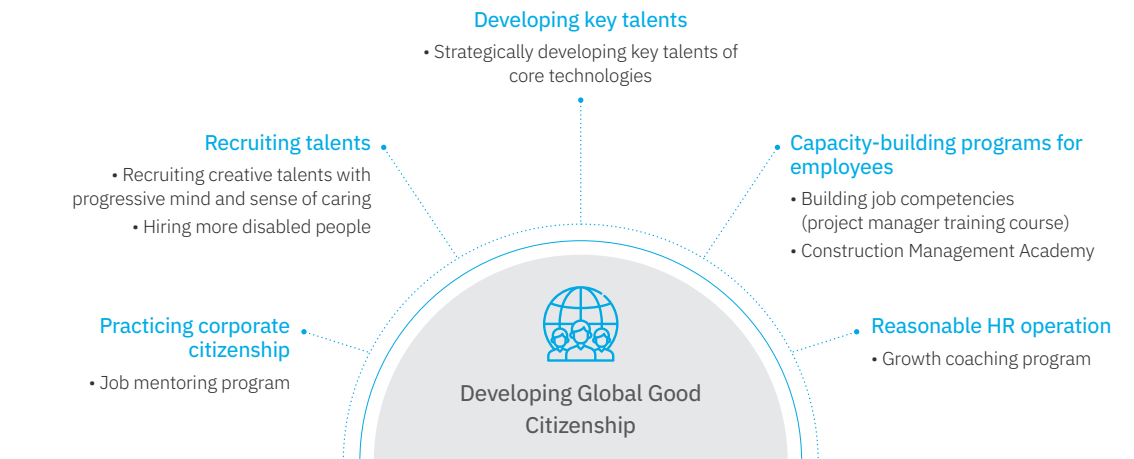
10.3 Ensure equal opportunities and reduce inequalities of outcome by ending discrimination in laws, policies and practices

Talent Management

Recruiting talents

A systematic HR system for developing global good citizenship

As “global good citizenship” that practice corporate citizenship in life and work, POSCO E&C employees are ambitious to create a company respected by society. In 2021, we plan to promote the sense of empathy among employees and support encourage their engagement in the company’s growth based on our key tasks of “developing key talents,” “reasonable HR operation,” and “practicing corporate citizenship.”



Recruiting creative talent with a practical and caring mindset

POSCO E&C implemented corporate citizenship throughout the recruitment process to hire creative talent with a practical and caring mindset. In our job application and interview, we ask the applicants about their opinions on corporate citizenship. During the first interview, interviewees are asked to present corporate citizenship-related ideas and ways to practice the philosophy. During job training after recruitment, new employees are given group tasks on ESG management and the practice of corporate citizenship. Groups with outstanding results are commended with a reward.

Expanding recruitment for the disabled

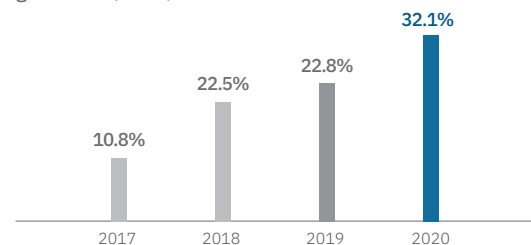
POSCO E&C is putting diverse efforts to achieve a recruitment rate of 3.1% of the disabled, which is the obligatory rate stipulated by domestic laws. We give special consideration to the disabled and people from low-income families during the document screening process. In 2020, we increased the recruitment rate of the disabled by newly establishing a sports team comprised of the disabled, hiring more the disabled at sites, and expanding employment coordination with standardized workplaces for the disabled.

Percentage of full-time positions in Korea

66%
(As of 2020)



Percentage of new female employees among university graduates (Korea)



Employee turnover rate in Korea

1.3%
(As of 2020)



Employment rate of the disabled

(2018) (2019) (2020)
0.7% → 0.9% → 2.5%



Developing key talents

Strategically developing key talents of core technologies (master plan)

In 2020, POSCO E&C conducted a master plan for attracting talents of core technologies to systematically maintain, develop, and secure key talents who will become the future growth power of our company. The master plan focuses on creating a growth path (Expert, Master, and Chief Master) for future talents of core technologies. By instilling a culture that encourages the growth of technical talents, we strive to develop as a company with internal stability and a growth engine.

Reasonable HR operation

Growth coaching program

POSCO E&C has been operating a quarterly coaching system since 2019 to support the growth of employees and activate their communication related to work. The coaching program is a process of encouraging employees to grow through feedback on accomplished tasks and sincere advice on future tasks. We conduct communication on a quarterly basis to help employees build their capacities and contribute to making a more pleasant work environment.

Practicing corporate citizenship through employment support for university students

Job mentoring program






POSCO E&C HR Office offers a job mentoring program for university students in the Incheon area. The program matches students who wish to enter the construction industry with mentors from our company to guide the students. Contents of the mentoring program includes what they should expect from work, how to prepare job application forms, job interview tips, and so forth.

Capacity-building programs

Company-wide education system

POSCO E&C conducts employee education to develop business experts and future leaders, enhance social values through education, and practice the management philosophy. In particular, to strengthen competencies in overseas projects, we plan to develop our courses on business negotiation and contract seminar. In 2021, we plan to add new courses on “Millennials,” “self-directedness,” and “corporate citizenship” to assist the growth of employees and function as a corporate citizen that coexists with stakeholders.

Key initiatives

 <p>Talents of core technologies</p>	<p>Attracting talents of key technologies</p> <ul style="list-style-type: none"> • [Appointed as deputy project manager] Newly-appointed deputy project manager / team leader → developing project managers • [Appointed as project manager] Newly-appointed project manager → Change management → developing project directors / head of construction unit
 <p>Overseas projects</p>	<p>Strengthened competencies for fulfilling overseas projects</p> <ul style="list-style-type: none"> • Developing overseas project managers and commercial experts • Business negotiation skills, contract seminar, education before/after dispatch
 <p>Millennials</p>	<p>Growth support for short-serving employees</p> <ul style="list-style-type: none"> • In-house MBA • Junior Engineers' School
 <p>Self-directedness</p>	<p>Conversion to self-directed learning and problem-solving</p> <ul style="list-style-type: none"> • Creating an in-house YouTube channel • Design thinking workshop and developing facilitators
 <p>Corporate citizenship</p>	<p>Practicing of corporate citizenship through education</p> <ul style="list-style-type: none"> • Growth support for suppliers through education • Internship programs for regional university students

Construction Management Academy

POSCO E&C operates the Construction Management Academy for continued capacity-building of employees. The academy consists of courses led by the company, headquarters, POSCO Group, and external organizations. The courses taken are linked with a credit system, which is managed as a key factor for promotion of employees. The courses include contents that are highly associated with work, such as analyzing business feasibility, analyzing big data, creating in-house YouTube videos, and AI.

Developing project managers

To cultivate project managers who can lead the projects of POSCO E&C, we offer project manager trainee course we developed since 2003. As of 2020, a total of 354 employees completed the course. The course aims to raise chief project managers and technical experts, who are the key positions in the construction industry. With an aim to create greater added values as experts of project management and develop leaders who practice corporate citizenship that induces the growth and happiness of employees, we offer at least two months of educational courses with the latest theories, virtual experience of projects, and practical training of work. In 2020, the program received the Ministerial Award of Employment and Labor (Gold Award) for the Best Practice Contest for Employers' Competency on Developing Vocational Capacity hosted by Human Resources Development Service of Korea.



Inclusive Corporate Culture

A way to achieve success for both employees and the company is to provide employees with psychological stability and create a pleasant space where everyone can fulfill their will. POSCO E&C seeks to create a satisfying corporate culture by supporting various activities for the growth of the company as well as the bountiful and stable lives of employees.

Town hall meeting hosted by executives

In 2020, at a town hall meeting hosted by a division head, employees from assistant manager to manager gathered to suggest and collect ideas on how to make a better division and center. The ideas collected were directly conveyed to the division head for appropriate action. In 2021, POSCO E&C held town hall meetings of more specified units by Offices and Project Groups. For convenient communication of the MZ generations who are more used to contact-less communication using social media, we had executives live stream the meetings, while employees gave their opinions anonymously. As such, we are conducting various communication methods to create a business culture participated by everyone.

Compliment coupon system

POSCO E&C operates a compliment coupon system in which supervisors can send mobile gift vouchers with a message conveying appreciation to lower-rank employees or employees of other departments. This program intends to motivate employees and spread a culture of appreciation.

Millennial system improvement TF (Young Board)

POSCO E&C strives to provide young employees with psychological stability and opportunities to speak up. In 2020, we formed a task force consisted of ten Millennials from assistant manager to manger to improve the company's systems. The suggestions collected from this task force were directly conveyed to the CEO. In 2021, the task force is being operated under the name Young Board, which continuously strives to reflect the voices of young employees throughout our business activities.

Pulse Survey

POSCO E&C also endeavors to understand the issues and give immediate feedback to employees at the right time. We increased the frequency of our corporate culture survey from once a year to occasionally. The survey tackles certain topics with reduced number of questions. The results are shared through the company's announcement board or at Office/Project Group town hall meetings to ensure that the voices of employees are heard by showing how their suggestions and opinions are applied in our business activities.

Smart Followership

POSCO E&C established the principle of practice of Smart Followership for employees to precisely understand their duties and fulfill their roles as assistants and partners of leaders based on their competencies. Furthermore, we are supporting the settlement of the Smart Followership culture through various systems and activities.

General Administration Division at your service

In order to actively listen to the needs and difficulties of employees dispatched to overseas sites and take appropriate measures, POSCO E&C held online meetings with eleven sites in seven different countries. A personnel from headquarters carefully explained the company's policies to enhance the understanding of employees and took immediate action on parts that can be improved. As shown through our activities, we pursue a harmonious corporate culture through strengthened communication.



Town Hall Meeting



Office/Project Group town hall meeting



Young Board



General Administration Division at your service

Welfare Benefits

Family-friendly company

The Best Family Friendly Management certification of the Ministry of Gender Equality and Family certifies businesses with notable family-friendly policies in relation to childbirth, childcare support, flextime system, and so forth. POSCO E&C acquired the certification in 2013 and has been maintaining it ever since. In 2020, we extended the period of parental leaves and implemented the work-from-home system to minimize career breaks during childrearing period. We seek to create a corporate culture that pursues employees' work and life balance through such policies in relation to childbirth and childrearing.

Fertility treatment support

For maternity protection, POSCO E&C supports extended fertility treatment leave and fertility treatment costs to female employees. We guarantee leaves filed for fertility treatment, such as artificial insemination and in vitro fertilization. The leave can be taken up to ten days (six days of paid leave, four days of unpaid leave), which is seven days more than the legal standard.

Improved policies for raising low birthrates



- Leave for prenatal tests
- Leave for fertility treatment
- Shortened working hours for employees with young children

Expanded cash reward for childbirth



- First child: KRW 1 million
- Second or later child: KRW 5 million

Work-from-home for parents with young children



- Employees with 8-year-old children or younger may choose to fully or partially work from home

Extended period of parental leave



- Extended from 1 year to 2 years

Family care for employees dispatched overseas leaving their families behind

To motivate employees in overseas sites, POSCO E&C annually sends holiday gifts to the families who are left behind. In 2020, we sent out gift sets of food ingredients for Lunar New Year's Day and Chuseok and extra gifts of Korean beef to encourage the dispatched employees who have been restricted from returning home due to COVID-19.

Online medical support for overseas employees

POSCO E&C signed an MoU with Inha University Hospital to offer online medical consultation to employees in overseas sites. Conducted through video calls and other online channels, the consultations include assistance on emergency and intensive care as well as general physical checkup. Employees are informed with over-the-counter drugs that are available in their regions, as well as ethical drugs with a prescription for those who have been examined at Inha University Hospital before.



Agreement on online consultation with Inha University

Employee satisfaction survey

To create a workplace that satisfies employees, POSCO E&C annually conducts the POSCO-Great Work Place (P-GWP) survey. This is to integrally analyze employee satisfaction on leadership, how they work, policies, and work environment and take appropriate measures to improve them. In 2020, the survey showed an outcome of 84 out of 100 points, showing an increase of 3 points year-over-year. The following are viewed to be the cause for the increase of points: improvements in the way they work, enhanced work and life balance, good leadership of executives, and strengthened communication with Millennial employees.

P-GWP score (points)



Employee participation rate (%)



Welfare benefits

Welfare benefit system



- Financial aid for children's education
- Welfare card
- Loan for life stabilization fund
- Support for expenditure for congratulations and condolences and funeral supplies
- Support for those who are on sick leave and other types of leave
- Support for variable payment medical insurance
- Support for gifts in Family Month

Working system



- Flextime system
- Half day-off holiday system
- Support for smart work
- Family care leave system
- Financial aid for holiday expenses


* Loans for children's school expenses and livelihood stabilization funds are not applicable to non-regular workers.




Find out how our business culture is changing.

To make a better company with happy employees, POSCO E&C and the Labor-Management Council pay attention to the voices of employees and look for solutions.

Open Communication ①



Operation of a task force consisted of Millennials for the improvement of the HR system (June)



Town hall meeting hosted by a division head or center head (September)

Culture of Positivity and Appreciation ②



Compliment Coupon System (July)



Improvement of reward system (August)

Site-focused Management ③




Evaluation/ promotion preferential treatment for remote sites (March)

Event and encouragement to commemorate the completion of the project (August)


Problem-solving for repeated VOC improvement on site (September)

Gender Equality and Protection of Motherhood ④




Extended period of parental leave (July)

Expanded support for childbirth incentives (August)




Gender-equal family event support (August)

Expanded cash support for personal development ⑤




Expanded cash support for personal development (January)




Improved coaching system from a growth-support perspective (April)

Real-time training for domestic and foreign field employees (June)

Work & Life Balance and Refresh Leave ⑥



Welfare Card points convertible to local currency (January)



Operation of Special Rental Recreation Center (July)

Support for long-term workers on refresh leave (August)

Emotional Care ⑦



Promotion of family-friendly company activities (January)



Expansion of psychological counseling support programs for executives and employees (July)

Online medical support for overseas workers (August)



To create 'A company where employees are satisfying and good to work for,' POSCO E&C and a labor-management council will always listen to the employees' voice and strive together.

Transparent Fundamentals

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Fair Trade

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Information Security



Governance

Composition of Board of Directors

The board of directors (BoD) primarily focuses on the deliberation on legal and other necessary matters that are directly or indirectly related to the business objectives of POSCO E&C as set forth in its Articles of Incorporation and other necessary resolutions. The ordinary BoD meetings of POSCO E&C are held seven times a year, while extraordinary meetings are held whenever necessary for urgent resolutions. The BoD is convened with the attendance of a majority of directors, and resolutions are made with the consent of a majority of the directors present.

BoD

(as of March 2021)

Name	Gender	Position	Background	Classification
Han Sung-Hee	Male	President & CEO	Current President of POSCO E&C, former Vice President of POSCO	Internal directors
Yoon Duk-il	Male	Strategic Planning Division Head	Current Strategic Planning Division Head of POSCO E&C, former Financial Office Head of POSCO	
Lee Ju-tae	Male	Non-executive director	Current Purchase & Investment Division Head of POSCO, former Management Strategy Office Head of POSCO	
Ahmed A.Al-Subaey	Male	Non-executive director	Current Vice President of Aramco, Saudi Arabia	Other non-executive director
Jacobo F.Solis	Male	Non-executive director	Current Senior Vice President of Public Investment Fund (PIF)	

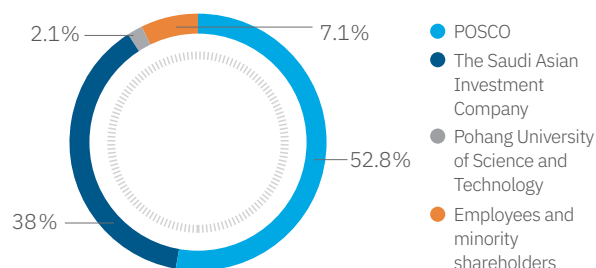
Operation of an audit system

POSCO E&C commissions an auditor through the general meeting of shareholders and commission resolution to perform audits for accounting and other tasks. The auditor has an independent authority to attend board meetings to state his/her opinions, request directors to report on sales, access and review related documents. In addition, the Corporate Audit Department operates in charge of internal audits as a supplementary auditing organization.

Shareholder composition

The shareholders of POSCO E&C are composed of POSCO with 52.8% share, The Saudi Asian Investment Company* with 38%, Pohang University of Science and Technology with 2.1%, and employees and minority shareholders with 7.1%.

* 100% subsidiary of Public Investment Fund (PIF)



Decision-making process considering sustainability

As a commitment to fulfilling social responsibility, POSCO E&C covers and makes resolutions on agendas related to sustainability.

Board agendas of 2020 and 2021

Date	Agenda
March 30, 2020 (Mon.)	<ul style="list-style-type: none"> Appointment of internal directors Donation for COVID-19 relief activities Revision on the BoD operation regulations 2020 donation for Incheon POSCO Academy
July 6, 2020 (Mon.)	<ul style="list-style-type: none"> Issuance of ESG Floating-Rate Note(USD)
August 13, 2020 (Thu.)	<ul style="list-style-type: none"> Revision on the BoD operation regulations
November 9, 2020 (Mon.)	<ul style="list-style-type: none"> Appointment of a Fair Trade Compliance Manager
December 10, 2020 (Thu.)	<ul style="list-style-type: none"> Donations for 2020
January 28, 2021 (Thu.)	<ul style="list-style-type: none"> Implementation of an electronic voting system for the general shareholders' meeting Reporting of the appointment of external auditors
March 15, 2021 (Mon.)	<ul style="list-style-type: none"> Appointment of internal directors Appointment of a Fair Trade Compliance Manager Safety and health plans for 2021 Donation for Incheon POSCO Academy in 2021
April 29, 2021 (Thu.)	<ul style="list-style-type: none"> Donation to fund for mutually beneficial cooperation of large enterprises & small-medium enterprises 2021 plans for ESG management

Performance in 2020

Number of meetings	Attendance rate
10	100%
Number of deliberations and resolutions	Number of agendas related to sustainability
33	16

Risk Management

POSCO E&C integrally manages risks in the areas of economy, society, and environment that may occur when winning orders and executing projects.

Operation of a dedicated organization for risk management

POSCO E&C operates the Project Risk Management Office, a dedicated department for risk management composed of experts, to identify and systematically manage risks from winning orders to completing projects. The Project Risk Management Group for winning orders identifies risks and countermeasures at the winning order stage, while the Project Cost Management Group revises the budget and manages the profit/loss, process, and risk at the project execution stage. The Risk Solution Group strengthens processes and receivables management. In 2020, we launched the Field Operation Support Unit to strengthen the prevention and management of ESG risks and formed the Project Financial Management Group for dispatching financial advisors on site and operating systems.

Risk management at the winning order stage

POSCO E&C has been operating an internal Project Deliberation Council for all projects of a certain size to prevent and manage risks at the winning order stage. First, a project briefing session is held to review the project summary and timeline, followed by a quotation review to verify the adequacy of the quotation and construction period. Afterwards, a risk review meeting

takes place to discuss business risks, such as financial conditions, quotations, and ESG-related matters, and countermeasures. For high-risk projects, we limit the entry of projects through an integrity evaluation that measures the operating profit ratio, compliance risk, whether there has been other countries that conducted this business, and whether the projects are of a new construction type. Ultimately, a company-wide project deliberation council is formed to decide on the participation of the discussed projects. The votes are kept confidential, while the resolution is made with the attendance of the majority of members and at least two-thirds of approving votes. Furthermore, we adopted a project risk evaluation to determine the lessons learned, categorize the opinions of relevant departments by risk, and save them in database, thus strengthening our risk management.

Risk management at the project execution stage

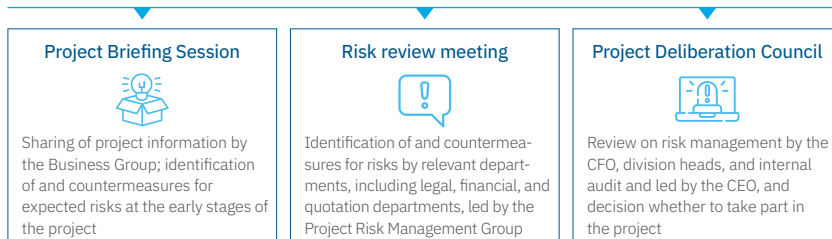
To increase the efficiency of project management at the execution stage, POSCO E&C classifies all projects into three grades (A: normal, B: caution, C: issue). We evaluate the projects' profit and loss, process, and risks, which are then managed differently by grade. We inspect the projects by stage from execution to completion through a construction project management process and entice a company-wide response to risks through monthly issue

review meetings led by the management. In addition, we operate a Health-Check system to secure the financial integrity of projects. Financial data is collected based on big data for a preemptive response to potential risks. The system sends an alert to the management and the project manager when the data exceeds certain risk standards.

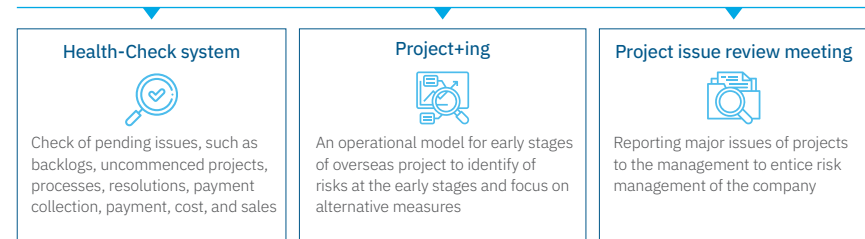
Risk management for overseas projects

In 2020, POSCO E&C began group-wide preliminary reviews of all new overseas projects. In particular, we discourage take part in projects of the country where POSCO E&C has never participated, apply novel technologies for the first time, and do not have experts secured. However, when there is an exceptional reason to participate, we verify the need by adding a separate project approval process. At the execution stage, we focus on discovering risks that may occur at the early stages of projects and how to respond to them through "Project+ing," a form of the company's support at the early stages of overseas projects. Moreover, we manage environmental, safety, process, and quality risks at overseas sites through a project life cycle checklist. We also utilize the QHSE Country Report for systematic management of local regulations, working environment, and quality, health, safety and environmental (QHSE) issues by country.

Risk management at the winning order stage



Risk management at the project execution stage



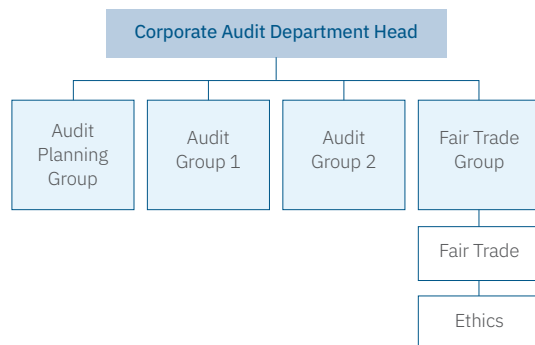
Ethical Management

POSCO E&C translates its vision of “Clean POSCO E&C” into action by engaging in ethical management and spreading the value of integrity, fairness, and trust. We are operating valid activities for fulfilling ethical management, such as the establishment of the Code of Ethics, formation of a dedicated organization for ethical management, and systematic educational programs.

Dedicated organization for ethical management

The Corporate Audit Department under the CEO takes full charge of ethical management, fulfilling duties related to conducting education on the Code of Ethics, encouraging compliance activities, responding to external complaints, planning/establishing/executing ethical risk identification, and compliance with the Foreign Corrupt Practices Act (FCPA). Among nine employees of the Fair Trade Group, four are in charge of ethical management.

Furthermore, to prevent and raise awareness of gender issues, we appointed a female staff in the Personnel Committee in August 2020 as well as a female auditor in July 2020. Such appointments encouraged female employees to consult and engage in investigations in a more comfortable environment.



Revision of the Code of Ethics

Since its declaration of the Code of Ethics in October 2003, POSCO E&C has been fulfilling and complying with the code through 21 revisions. In 2020, we revised the code once again for simplified version and to minimize the risk of violating the Fair Transactions in Subcontracting Act within the Special Clause. We also added seven separate guidelines* for preventing sexual harassment and bullying in workplace, preventing conflicts of interest, Special Clause of Ethics Practice for domestic and overseas sites, management and operation guidelines for Code of Ethics, and compensation for reporting unethical behaviors and exemptions from responsibilities. The Code of Ethics and its guidelines are posted on the company regulation app and ethical management app for easy access of employees.

*Separate guidelines: Prevention of sexual harassment in workplace; Prevention of workplace bullying; Prevention of conflicts of interest; Special Clause of Ethics Practice (for domestic sites); Special Clause of Ethics Practice (for overseas sites); and Management and operation guidelines for Code of Ethics, Compensation for reporting unethical behaviors and exemptions from responsibilities.

Four major ethics promotion campaigns

Bribery Receiving money or goods (cash, gift vouchers, etc.) from stakeholders	Embezzlement Misusing or illegally possessing company funds and/or asset
Manipulation of business related information Forging, concealing, and/or disclosing work-related reports and/or documents	Violation of human dignity (bullying, sexual harassment) Acts of giving sexual humiliation and/or physical/psychological distress over an appropriate level to an employee by taking advantage of a higher rank

Operation of the Ethical Committee led by standing auditor

Ethical management of POSCO E&C is taken charge by the Corporate Audit Department under the CEO, which has an standing auditor appointed to promote ethical management. The Ethical Committee is chaired by the standing auditor and systematically practices business ethics by stipulating the management and operation guidelines for the Code of Ethics. The committee decides and deliberates on matters related to the establishment, revision, and repeal of the Code of Ethics and qualifications for signing contracts related to FCPA. In February 2020, we appointed new members of the Ethics Committee and revised the Code of Ethics.

Ethics education for employees

POSCO E&C develops and offers online and offline courses on ethics for employees. As a measure to comply with social distancing practices against COVID-19, we classified the trainees by class and host in 2020 and provided 36 sessions to a cumulative number of 5,849 employees. We also invited an instructor from a law firm and held a special training for the Leaders’ Group to touch on the case examples of unethical behaviors and their consequences, such as the level of punishment and prosecutors’ investigation method. Furthermore, the department heads held ethics education targeting their associates to practice social distancing, as well as separate education for employees scheduled for overseas dispatch.

e-Learning program for employees

All employees of POSCO Group's affiliated companies are subject to the group's e-learning program on business ethics and preventing sexual harassment. As of March 2020, 5,076 out of 5,102 POSCO E&C employees completed the courses, achieving a high completion rate of 99.5 percent. As for the sexual harassment prevention program, 4,926 out of 4,932 employees completed the course, attaining a completion rate of 99.8 percent. Employees in overseas sites who were not able to complete the courses due to poor Internet connection were provided with separate offline programs for them to fulfill the legal requirement.

Status of ethics courses conducted by the Fair Trade Group
(as of October 23, 2020)

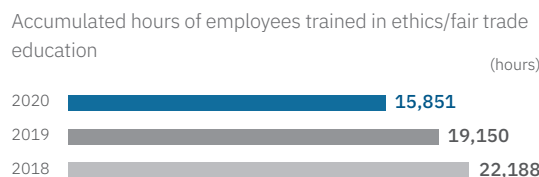
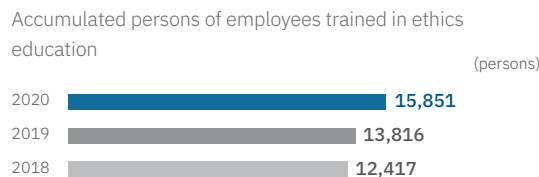
Course	Target	Ses- sions	Partici- pants
Introduction to ethics for employees who got converted to a permanent position	Employees who got converted to a permanent position	1	9
Introduction to ethics for college-graduate employees	College-graduate employees	1	33
Ethics education according to Audit Notice	Departments where unethical behaviors occurred	19	653
Developing commercial experts (FCPA)	Employees handling overseas projects	1	32
Special ethics education for leaders (conducted by former prosecutor)	Employees of the Plant E&C, Infrastructure Business, and Building Works Divisions	3	180
Special ethics training for safety managers	Safety and Health Center	4	132
Ethics education for the Procurement Office	Employees in charge of purchasing	1	90
Preventive education according to the ethics assessment of leaders	Sites with issues determined by ethics assessment	1	18
Ethics education led by department heads	All employees	1	4,695
Ethics education for overseas leaders	Team leaders or higher-ranking employees in overseas sites	4	7
Total		36	5,849

Support for affiliated companies' practice of ethics

POSCO E&C supports the practice of ethics of not only our employees but also the employees of affiliated companies. On August 13, 2020, we hosted and operated a meeting for affiliated companies' working-level staff, including POSCO O&M, POSCO A&C and POSCO INTERNATIONAL, to share current issues on ethical management. The discussion touched on yearly plans and their progress, as well as activities for practicing ethical management amid the COVID-19 pandemic. We shared our own materials on ethics campaign* to help each company engage in ethical practice. Our efforts to share such campaign materials and practice ethical management will continue along with other subsidiaries.

*Content of the ethics campaign: 3 materials for the four major ethics promotion campaign; 4 materials for the ethical management campaign

Status of ethics and compliance education



Measures to prevent recurrence of violations of Code of Ethics

POSCO E&C not only monitors violations of the Code of Ethics but also takes measures through different channels to prevent the recurrence of such violations. For unethical behaviors, in particular, we published three letters to encourage integrity and serve them as case examples. In addition, we created a video on the Code of Ethics and conducted seven ethical management campaigns, aiming to prevent the recurrence of unethical behaviors. We also sent out letters written by the CEO, standing auditor, and Head of Fair Trade Group, twice each, to prevent similar cases and show how the leaders take part in ethical management.

POSCO E&C's ethical management

Standards	Performance in 2020
Ethics education for employees (by group)	36
Completion rate of the e-Learning program on business ethics	99.5%
Completion rate of the e-Learning program on preventing sexual harassment	99.8%
Ethics education of department and site leaders	380 groups/sites

Human Rights Management

Human rights policy

With the formulation of the Code of Ethics, POSCO E&C respects and takes part in international standards on human rights, including the Universal Declaration of Human Rights, United Nations Guiding Principles on Business and Human Rights, UNGC, and OECD Guidelines for Multinational Enterprises. We stipulated clear policies and established systems for the protection of human rights and strive for the prevention of human rights violations. We obligated inspections on business activities that violate human rights or cause grievance to seek reasonable solutions, and in this regard, we conduct regular monitoring. Moreover, our Supplier Code of Conduct regulates the requirements on human rights, labor, and safety and health within the supply chain.

Improvement of the sexual harassment prevention policy

POSCO E&C improved its system for preventing sexual harassment and handling cases in relation to gender sensitivity for more subtle protection of the victims. At the prevention stage, we conducted meetings for female employees (upon demand), ethics education led by supervisor-levels (twice a year), survey on respect for human dignity (twice a year), and campaign on the prevention of secondary victimization and gender sensitivity (monthly). At the investigation and taking action stage, we assigned same-sex investigators as well as appointed female personnel. For the follow-up stage, we supported victimized employees for their return to normal life and strengthened education and campaigns for prevention of recurrence.

Survey on respect for human dignity

As part of its efforts to prevent and eradicate violations of human dignity, such as bullying and sexual harassment in workplace, POSCO E&C annually conducts a survey on respect for human dignity*. The survey collects and manages related cases and thus cultivates a sound workplace culture. According to the survey conducted in 2020, 211 respondents (8%) have been victimized and 25 respondents (1%) gave unusual answers. Four respondents who had the will to report their case or mentioned their identity withdrew their report while confirming their will for investigation. The unusual 25 answers were used as educational materials for ethical management. As an additional measure, emails were sent to department heads, reminding them on the precautions regarding the survey. The contents are found in our “ethics cards” for continuous monitoring.

*Survey on respect for human dignity: Conducted on 6,059 employees, in which 2,653 (44%) responded.

Survey on respect for human dignity (2020)

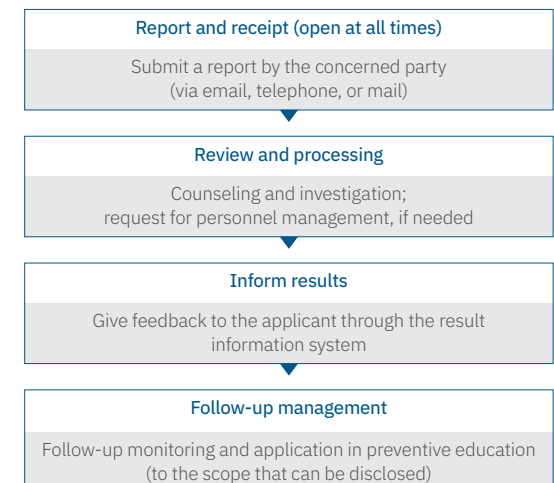
Subject	6,059 employees of POSCO E&C						
Content	8 questions on violations of human dignity (bullying and sexual harassment in workplace) - Bullying: Assault, abusive language, bullying, ordering excessive work, invasion of privacy, gossiping, etc. - Sexual harassment: Evaluating one's looks and outfit, sexually offensive language, physical contact, etc.						
Results	Employees who experienced workplace bullying (187 cases)				Employees who experienced Sexual harassment in workplace (24 cases)		
	Work-related	Psychological	Personal	Physical	Verbal	Sexual	Visual
	72 (2.7%)	61 (2.3%)	51 (1.9%)	3 (0.1%)	18 (0.7%)	5 (0.2%)	1 (0.1%)
Actions to be taken	• Share the survey result with the supervisor-level of the site/department of respondents and send a letter requesting for taking preventive actions • Visit three sites where sexual harassment is likely to occur to provide education and consultation for female employees						

Operation of a report/counseling center

Aiming to guarantee employees' human rights, POSCO E&C operates a report/counseling center where appropriate actions are taken in the incident of bullying and/or sexual harassment in workplace. Our employees have been informed about this center through announcements, in-house broadcasting, and signboards on-sites. Cases submitted to the report/counseling center are answered with feedback within two weeks, in principle. In 2020, we received 369 cases, and feedbacks were given in an average of 8.5 days.



Human rights grievance process



Fair Trade

To comply with the Monopoly Regulation and Fair Trade Act and accord with the fair and free market competition, POSCO E&C adopted the Fair Trade Compliance Program to fulfill its role as a corporate citizen.

Fair Trade Compliance Program

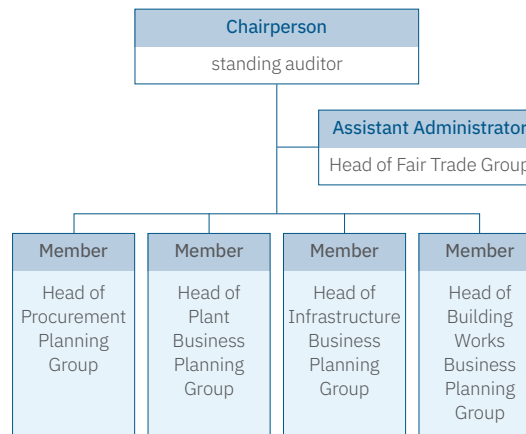
The Fair Trade Compliance Program refers to behavioral guidelines and encouraged practices to fulfill the in-house compliance system, which includes education and monitoring that prevent violations of the Monopoly Regulation and Fair Trade Act and other voluntary acts for compliance. In July 2003, POSCO E&C's adoption of the Fair Trade Compliance Program led to voluntary business activities that ensure fairness and transparency. Through the program, we are strengthening our ethical management and instilling a culture of fair trade.

Major achievements of Compliance Program

Year	Achievement
2020	<ul style="list-style-type: none"> Received a commendation by the Minister of Land, Infrastructure and Transport (mutual growth) Acquired the "Excellent" grade for the Fair Trade Agreement Fulfillment Evaluation Republished the Fair Trade Compliance Guide
2019	<ul style="list-style-type: none"> Received a commendation by the Chairperson of the Fair Trade Commission (for securing fair trade order) Acquired the "Best" grade for the Fair Trade Agreement Fulfillment Evaluation Adopted the standard subcontract agreement in all areas
2016	<ul style="list-style-type: none"> Adopted a system for self-inspection and correction of violations of the Fair Transactions in Subcontracting Act
2015	<ul style="list-style-type: none"> Published and distributed the Handbook on the Fair Transactions in Subcontracting Act
2014	<ul style="list-style-type: none"> Supported suppliers implementation of the Compliance Program
2011	<ul style="list-style-type: none"> Acquired Grade AA in Compliance Program evaluation
2010	<ul style="list-style-type: none"> Established a fair trade compliance inspection system
2009	<ul style="list-style-type: none"> Acquired Grade A for the evaluation on the fulfillment of fair trade agreement with subcontract
2006	<ul style="list-style-type: none"> Acquired Grade A in Compliance Program evaluation
2005	<ul style="list-style-type: none"> Established a dedicated organization for fair trade Appointed a Compliance Program leader
2003	<ul style="list-style-type: none"> Adopted and operated the Fair Trade Compliance Program

Compliance Committee

POSCO E&C's Compliance Committee is chaired by an standing auditor that deliberates and seeks advice on the key issues of the Compliance Program. The committee holds regular meetings every six months, and all members participate in appointing a Fair Trade leader to support the practical operation of the committee.



Operation of a preliminary monitoring system

The rules and guideline on the operation of the Fair Trade Compliance Program stipulate that the operation of the Compliance Program and monitoring results must be reported to the top management of POSCO E&C. The monitoring system explains the methods on inspecting the compliance of the program, which should be reported at least once semiannually to the CEO and executives. As for the regular audit on the Fair Transactions in Subcontracting Act, we are utilizing a new monitoring system developed by the Fair Trade Group for efficient auditing.

Publication of the revised Fair Trade Compliance Guide

POSCO E&C published a revised version of the guide in June 2020. The revision covers the introduction to the Compliance Program and the practice of the following acts: the Fair Transactions in Subcontracting Act, the Monopoly Regulation and Fair Trade Act, the Act on Fair Labeling and Advertising, and the Act on the Regulation of Terms and Conditions. The contents have been classified by law, considering the fact that each department has different laws to consider and violation risks.



Fair Trade Compliance Guide

Education and training on fair trade

To enhance the effectiveness of the Fair Trade Compliance Program and ensure non-recurrence of law violations, POSCO E&C conducts education and training on fair trade to all employees. We enhance employees' understanding through various methods, such as visiting and inspecting sites for training examples in relation to the Monopoly Regulation and Fair Trade Act and the Fair Transactions in Subcontracting Act, video materials, and announcements. In 2020, we developed online educational content as a measure to protect our employees from COVID-19. In the following year, our field departments formed an educational system on fair trade to embed the culture, and we are offering education on the prevention and recurrence of law violations.

Education and training for the Compliance Program

Performance in 2020	Description	Frequency
On-site education	General education if construction process is at 10 to 15%, special education (related to inspections and law violations), etc.	Regularly
Video education	Online education for departments exposed to high risk of law violations (Project, Procurement, R&D, etc.) (content development)	Annually
Announcement-type education	Posting cases of law violations and revisions of related laws on the company's announcement boards	Regularly
Pop-up education	Utilizing pop-up windows that appear when accessing the work system	Quarterly
Customized education	Education for new recruits, transferred employees, soon-to-be project managers, Construction Management Academy, requesting departments, etc.	Regularly

Eradication of law violations through improvements in work system and infrastructure

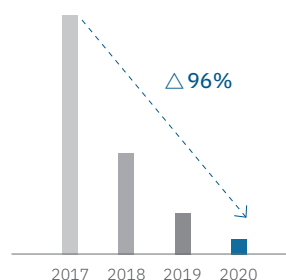
POSCO E&C prevents violations of the Monopoly Regulation and Fair Trade Act through standardized contract documents and a pre-agreement system. In 2020, we implemented the standard purchasing specifications and pre-agreement procedures. Our direct payment system for material costs, labor costs, and expenses also guarantees the protection of suppliers and their subcontract.

Enhancement of employees' awareness on and response to fair trade

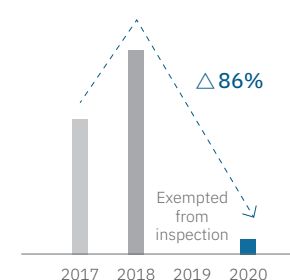
POSCO E&C is enhancing the employees' awareness of and response to fair trade through education on fair trade, frequent inspections, and personnel management. Such our efforts were acknowledged in 2020, wherein we acquired the "Excellent" grade for the Fair Trade Agreement Fulfillment Evaluation and have been evaluated by an external consulting agency to be taking appropriate preemptive measures for suppliers. In addition, the number of law violations and reported cases have continued to drop dramatically since 2017.

	2019	2020
Education	72 sessions (1,929 participants)	62 sessions (15,994 participants, commenced video education)
Inspection	29 times	50 times
Personnel management	25 cases	14 cases
Compliance Program grade	-	Acquired a grade (December, AA)

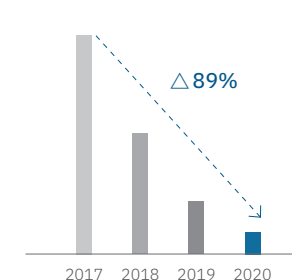
Number of law violations by self-inspection



Number of corrections recommended through factual survey







Number of reported cases



Information Security

POSCO E&C conducts self-inspection on the compliance of the Personal Information Protection Act and the Act on Promotion of Information and Communications Network Utilization and Information Protection, Etc. Along with our efforts to improve the weakness of our information system, we guarantee information security through internal and external audits of different standards, such as the ISO 27001, information security evaluation standards of POSCO Group, Privacy Policy, and checklist on personal information and security inspection.

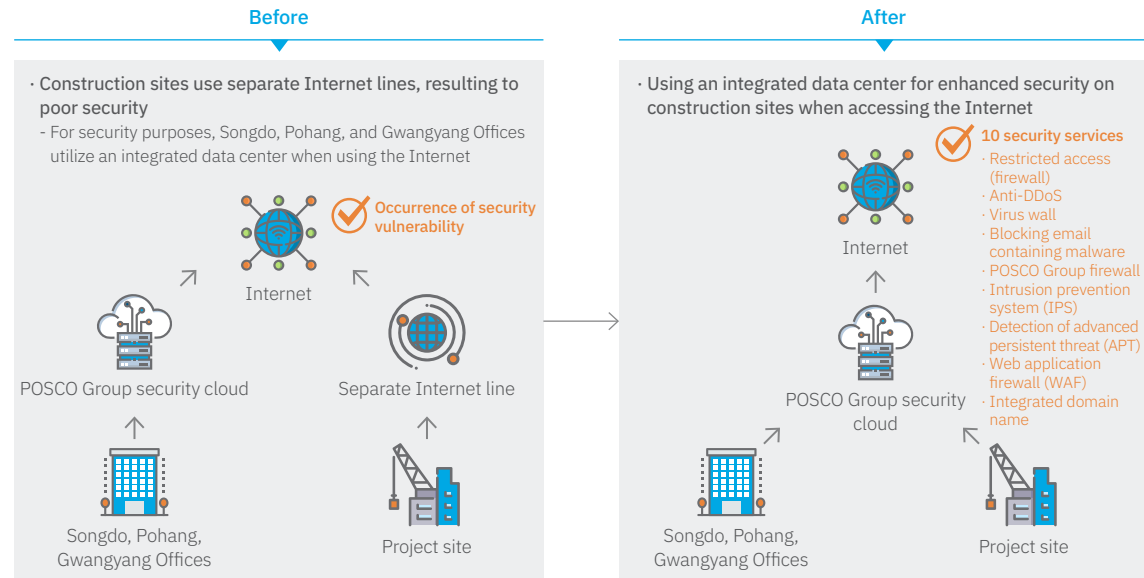
Internal and external audit programs

Classification	External audit					Internal audit			
Inspecting agent	Lloyd's Register Korea 	POSCO 	Accounting firm 	Information Protection Group 					
Inspection items	ISO 27001 evaluation	Security assessment of POSCO Group	Mock hacking	Awareness evaluation (phishing, smishing, etc.)	IT audit (internal control)	Inspection of information security	Inspection of daily security	Inspection on the status of possessed personal information	In the event of an issue, such as security breach
Frequency	Once a year	Once a year	Once a year	Quarterly	Twice a year	Once a year	Quarterly	Upon demand	Upon demand
Target	Information Protection Group	Information Protection Group	Website that leaked internal information / external website	All employees	Information Protection Group	Site that manages personal information (contracting offices, move-in support centers)	Songdo, Pohang, Gwangyang Offices	All employees	All employees

Implementation of security cloud on sites

Upon recognizing that it is necessary to improve the security for Internet access in domestic sites, POSCO E&C applied a security cloud for Internet traffic of hardware VPN in construction sites. Internet traffic of 110 domestic sites has been applied with POSCO Group's security cloud*. Construction site has been enabled the same conditions of website access and control as head office and thus reduced the risk of ransomware and hacking.

* Security cloud: Security system established by POSCO ICT and provided to POSCO subsidiaries on a billing system.



IoT and mobile security

POSCO E&C's security system responds to the growing demands for a system that prevents illegal manipulation of home appliances and CCTV cameras and increased use of Smart Home services with the latest trends applied, such as Internet of Things (IoT) and AI. Some examples of Smart Home IoT devices and mobile products we use in our daily lives are digital door locks, gas valves, temperature/humidity sensors, wall-mounted tablet PCs, home security cameras, and wireless routers. We apply purchase standards and processes to Smart Home products for apartments through our IoT security certification and checklist. In this manner, we keep IoT products safe from cyber attacks and thus earn trust from customers.

Modernizing the network devices in Songdo and Pohang

For enhanced vulnerability management, POSCO E&C replaced end-of-service* network devices with new ones. We prevent malware infections in our servers by running security features in the firewalls of 140 sites. Upon acknowledging that the Pohang site was experiencing inconveniences due to lack of a wireless network, we provided them with a wireless network and thus improved the convenience of workers. Based on our activities and support to improve our security vulnerability management, we are prepared to respond to any cyber attacks.

* End of service (EOS): Termination of technical support (maintenance, patch application, etc.) of a product by its manufacturer.

Acquisition of the ISO 27001 certification

POSCO E&C manages its information security system through the acquisition of ISO 27001. We will continue to improve our information security policy, communications and operation, access control, and response to information security incidents.

Information security education for raising awareness

POSCO E&C's educational programs on information security contribute to raising the awareness of employees and suppliers. Led by the departments in charge of managing personal and significant information, the programs are conducted online and offline to specific target groups. The education covers different topics, including raising the awareness of information security and its policies and courses for working-level and intensive-level. In addition, we prevent cybersecurity incidents and enhance our security standards by conducting case-oriented education and utilizing audiovisual aids that convey the acts of protecting personal information and responding to cyber attacks, such as phishing and smishing.

Personal information protection



- Cases of information leakage; countermeasures by stage
 - Contracting offices, consigned businesses, move-in support centers, construction sites
- Online education on personal information protection by Korea Internet & Security Agency (KISA)
 - Guaranteeing the personal information security

Information security



- Inspection and controlling activities; level of daily security and punishment standards; response to phishing/smishing



Online education on information security for employees



ISO 27001 certification

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ESG Data

Financial Data

Summary of Consolidated Financial Statements

Classification	Unit	2018	2019	2020
[Current assets]	KRW million	3,972,208	4,432,559	4,495,661
Cash and cash equivalents	KRW million	3,270,070	3,695,050	3,565,022
Inventories	KRW million	702,138	737,509	930,639
[Non-current assets]	KRW million	2,174,694	2,236,059	2,291,650
Investments	KRW million	322,295	315,995	410,941
Tangible asset	KRW million	169,413	319,310	311,834
Intangible asset	KRW million	216,186	219,746	225,356
Other non-current asset	KRW million	1,466,800	1,381,008	1,343,519
Total assets	KRW million	6,146,902	6,668,618	6,787,311
[Current liabilities]	KRW million	2,960,072	3,054,663	2,985,258
[Non-current liabilities]	KRW million	609,127	795,058	730,802
Total liabilities	KRW million	3,569,199	3,849,721	3,716,060
[Capital]	KRW million	209,033	209,033	209,033
[Consolidated capital surplus]	KRW million	1,067,053	1,052,705	1,054,945
[Reserves]	KRW million	-155,224	-160,189	-145,430
[Consolidated retained earnings]	KRW million	1,415,003	1,555,896	1,765,200
[Non-controlling interest]	KRW million	41,838	161,452	187,503
Total capital	KRW million	2,577,703	2,818,897	3,071,251

Summary of Consolidated Income Statements

Classification	Unit	2018	2019	2020
Revenue	KRW million	7,027,980	7,650,251	7,794,363
Operating profit (loss)	KRW million	304,150	247,525	379,730
Continuing operating profit (loss) before corporate tax	KRW million	379,523	259,538	323,981
Net profit (loss) from continuing operation	KRW million	133,465	172,668	257,135
Net profit (loss)	KRW million	133,465	172,668	257,135
Net profit (loss) in controlling interest	KRW million	136,421	174,576	250,766
Net profit (loss) in non-controlling interest	KRW million	-2,956	-1,907	6,369
Consolidated gains (losses) per share	KRW	3,263	4,176	5,998
Number of companies included in the consolidation	Companies	24	23	25

Economic Performance

Revenue by business area

Classification	Unit	2018	2019	2020
Plant	KRW 100 million	16,577	14,610	17,807
Building works	KRW 100 million	47,134	52,260	49,835
Global infrastructure	KRW 100 million	6,474	8,311	7,989
Real estate-related services	KRW 100 million	759	381	101
Technological services	KRW 100 million	166	1,792	3,416

Amount of purchases made from major business sites

	Classification	Unit	2018	2019	2020
Domestic	Construction and services	KRW 100 million	33,600	32,246	28,075
	Facilities	KRW 100 million	3,549	4,340	2,006
	Materials	KRW 100 million	5,519	5,936	4,900
	Total	KRW 100 million	42,668	42,522	34,981
Overseas	Construction and services	KRW 100 million	2,018	2,800	2,461
	Facilities	KRW 100 million	512	1,849	2,332
	Materials	KRW 100 million	77	38	4
	Total	KRW 100 million	2,607	4,687	4,797

Allocation of economic outcomes

Item	Allocated to	Unit	2018	2019	2020
Total wage	Employees	KRW 100 million	5,551	6,848	4,761
Wage		KRW 100 million	5,142	6,340	4,577
Severance payment		KRW 100 million	409	508	184
Total amount spent on purchases	Suppliers	KRW 100 million	46,547	48,421	41,067
Outsourcing cost		KRW 100 million	40,804	42,360	36,079
Raw material purchasing cost		KRW 100 million	5,743	6,061	4,988
Donation and social contribution	Society	KRW 100 million	42	47	43
Dividends	Investors	KRW 100 million	209	209	209
Corporate tax	Country	KRW 100 million	2,358	754	482
Interests	Creditors	KRW 100 million	574	400	364
Total allocated economic value	-	KRW 100 million	55,281	56,675	46,926

Environmental Performance

Energy consumption by business site

Classification		Unit	2018	2019	2020
Pohang Headquarters and Songdo Office, etc.	Fuel	TJ	18.04	25.23	21.24
	Electricity	TJ	124.71	173.98	151.57
	Steam	TJ	20.97	22.95	14.04
	Total	TJ	163.72	222.16	186.84
Domestic sites	Fuel	TJ	62.47	90.48	73.21
	Electricity	TJ	443.64	621.33	695.17
	Total	TJ	506.11	711.81	768.38
Total energy consumption by business site		TJ	669.84	933.97	955.22

Wastewater discharge

Unit	2018	2019	2020
ton	188,973	146,100	156,607

Amount of raw materials used

Classification		Unit	2018	2019	2020
Amount of non-renewable raw materials used	Rebar	1,000 tons	294	299	289
	Cement	1,000 tons	176	193	130
	Asphalt	1,000 tons	29	51	31
	Ready-mix concrete	1,000 m³	3,529	3,348	3,458
	Sand	1,000 m³	4	15	9
	Gravel	1,000 m³	2,489	4,234	3,159

Water resource consumption

Classification		Unit	2018	2019	2020
Water consumption	Municipal water	ton	556,232	566,937	572,865
	Groundwater	ton	225,322	172,262	97,783
	Rainwater and graywater	ton	18,300	12,402	14,201
	Total	ton	799,854	751,601	684,849

Greenhouse gas emissions

Classification	Unit	2018	2019	2020
Greenhouse gas emissions (Scope 1, 2)	tCO ₂ e	33,620	46,903	47,882
Scope1	tCO ₂ e	5,311	7,517	6,200
- Pohang Headquarters and Songdo Office, etc.	tCO ₂ e	1,046	1,390	1,169
- Domestic construction sites	tCO ₂ e	4,265	6,127	5,031
Scope2	tCO ₂ e	28,309	39,386	41,682
- Pohang Headquarters and Songdo Office, etc.	tCO ₂ e	6,761	9,209	7,821
- Domestic construction sites	tCO ₂ e	21,548	30,177	33,861
Other greenhouse gas emissions (Scope 3)	tCO ₂ e	25,432	25,816	14,570
Intensity	tCO ₂ e/KRW 100 million	0.4784	0.6131	0.6143
- Scope1	tCO ₂ e/KRW 100 million	0.0756	0.0983	0.0795
- Scope2	tCO ₂ e/KRW 100 million	0.4028	0.5148	0.5348

Waste generation

Classification	Method	Unit	2018	2019	2020
Waste generation (by treatment method)*	Recycling	ton	589,419	584,934	633,722
	Incineration	ton	609	101	94
	Landfill	ton	210,649	261,783	67
Total		ton	800,677	846,818	633,561
Ratio of recycled waste**		%	73.6	69.1	99.9
Waste generation (by type)	Designated waste	ton	0	0	0
	Industrial waste	ton	138	48	59
	Construction waste	ton	800,539	846,770	633,722
Total		ton	800,677	846,818	633,781
Cost of waste treatment		KRW million	18,415	19,392	14,546

* Incinerated waste are lawfully transported and treated by a designated agency; however, energy recovery is not confirmed due to consignment contract.

** By contracting with a waste recycling company to promote recycling, we reduced the amount of waste that are landfilled and incinerated, while expanding the recycling amount. The waste recycling rate was dramatically increased in 2020.

Social Performance

Status of employees

Classification		Unit	2018	2019	2020
Status of employees	Total employees	persons	5,513	5,555	5,547
Detailed status of employees	Employees	persons	5,479	5,526	5,520
	By type of employment				
	Permanent	persons	3,689	3,678	3,623
	Non-permanent	persons	1,790	1,848	1,897
	Gender				
	Male	persons	4,928	5,006	4,956
	Permanent	persons	3,507	3,492	3,433
	Non-permanent	persons	1,421	1,514	1,523
	Female	persons	551	520	564
	Permanent	persons	182	186	190
	Non-permanent	persons	369	334	374
	By age				
	Below 30 years old	persons	558	562	565
	30 to 50 years old	persons	4,044	4,032	3,832
	51 years or older	persons	877	932	1,123
	By region				
	Domestic	persons	5,103	5,245	5,283
	Southeast Asia	persons	256	200	186
	China	persons	15	13	8
	India / Pakistan	persons	10	10	4
	Middle East / Africa	persons	49	28	9
	North and Central America	persons	32	4	17
	South America	persons	10	24	9
	Europe / CIS	persons	3	1	4
	Oceania	persons	1	1	-
Diversity of employees	National veterans	persons	61	57	61
	Foreign nationals	persons	4	3	2
	Employees with disabilities	persons	37	54	101
	Employment rate of the disabled*	%	0.7	0.9	2.5

* Reference: Data reported by the Korea Employment Agency for the Disabled

Status of executives

Classification			Unit	2018	2019	2020
Detailed status of executives	Executives		persons	34	29	27
	Gender	Male	persons	34	29	27
		Female	persons	-	-	-
	By region	Domestic	persons	32	26	27
		Overseas	persons	2	3	-

New recruits and employee turnover

Classification	Unit	2018	2019	2020
Number of new recruits	persons	149	101	84
- Male	persons	132	87	72
- Female	persons	17	14	12
- Below 30 years old	persons	-	-	47
- 30 to 50 years old	persons	-	-	35
- 51 years or older	persons	-	-	2
- Ratio of new recruits	%	3.8	2.6	2.1
Resigned/retired employees	persons	67	71	99
- Male	persons	61	66	96
- Female	persons	6	5	3
- Below 30 years old	persons	-	-	9
- 30 to 50 years old	persons	-	-	37
- 51 years or older	persons	-	-	53
- Resignation ratio	%	1.82	1.95	2.5

Employees subject to collective bargaining agreement

Classification	Unit	2018	2019	2020
Number of employees subject to union	persons	1128	1225	1024
Total number of union members	persons	2	2	2

Parental leave

Classification	Unit	2018	2019	2020
Employees on parental leave	persons	30	30	44
- female	persons	10	10	17
- male	persons	20	20	27
In continuous employment of one year or longer after return from parental leave	persons	18	28	31
- female	persons	13	19	21
- male	persons	5	9	10
Employees eligible to return from parental leave	persons	29	37	19
- female	persons	-	-	8
- male	persons	-	-	11
Employees who returned from parental leave	persons	29	35	17
- female	persons	-	-	8
- male	persons	-	-	9
Rate of continuous service of over one year	%	100	96.6	88.6%
Return rate from parental leave	%	100	94.1	89.5%

Training

Classification	Unit	2018	2019	2020
Hours of training per employee	hours	66	59	56
Expenses of training per employee	KRW 1,000	600	620	410

* There are limitations in classifying the data by gender.

Statistics on accidents

Classification	Unit	2018	2019	2020
Injury rate*	%	0.33	0.12	0.10
Fatalities	persons	10	1	2
- Employees	persons	-	-	-
- Employees of suppliers	persons	10	1	2
Number of injury	persons	44	46	27
- Employees	persons	-	-	-
- Employees of suppliers	persons	44	46	27

* Formula: (Converted number of incidents / Ordinary number of employees) x 100

• Converted number of incidents: Fatalities x 5 + Number of injuries

• Ordinary number of employees: (Yearly domestic sales x labor rate) / (average monthly wage of workers x 12 months)

Classification of injury

Classification	Unit	2018	2019	2020
Fatalities	persons	10	1	2
- Falls	persons	6	-	-
- Hit by falling objects	persons	1	-	-
- Hit by flying objects	persons	1	-	1
- Hit by collapsing objects	persons	1	-	-
- Crushing	persons	1	-	1
- Collapse	persons	-	1	-

Local community

Classification	Unit	2018	2019	2020
Volunteer work by employees	Volunteering hours per person	hours	22.4	17.7
	Total volunteering hours	hours	109,897	97,752
Investment for social contribution	Voluntary contributions of employees to the 1% sharing program	KRW 100 million	4.5	5.4
	Total contributions to the 1% sharing program	KRW 100 million	9.0	10.8

Injury rate

Classification	Unit	2020
Fatality rate*	Employees	1 million man-hours
	Suppliers	1 million man-hours
Lost time incident rate (LTIR)**	Employees	1 million man-hours
	Suppliers	1 million man-hours

* Fatality rate = Fatalities / working hours * 1,000,000

** LTIR = Number of incidents that result in time away from work / working hours * 1,000,000




Grievance handling













Classification	Unit	2018	2019	2020
Number of grievances received	cases	519	534	445
Cyber Sinmungo (employee reporting system)	cases	1	4	4
The Plus Square	cases	518	530	476

Progress rate of regular performance evaluation

Classification	Unit	2018	2019	2020
Ratio by gender	Male	%	98	98
	Female	%	91	93
Ratio by employment type	Permanent	%	98	98
	Non-permanent	%	93	92

GRI Content Index

Topic		Disclosure	ISO 26000	Page/Contents	Assurance	UN SDGs
Universal Standards						
GRI 102: General Disclosure						
Organizational profile	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	6	v	
	102-2	Activities, brands, products, and services		8~13	v	
	102-3	Location of headquarter		6	v	
	102-4	Location of operations		7	v	
	102-5	Ownership and legal form		6	v	
	102-6	Markets served		7~13	v	
	102-7	Scale of the organization		6	v	
	102-8	Information on employees and other workers		96~97	v	
	102-9	Supply chain		56~58	v	
	102-10	Significant changes to the organization and its supply chain		2020 business report(11~22)	v	
	102-11	Precautionary principle or approach		82	v	
	102-12	External initiatives		34~35, 104~107	v	
	102-13	Membership of associations		109	v	
Strategy	102-14	Statement from senior decision-maker	4.7/6.2/7.4.2	4	v	
	102-15	Key impacts, risks, and opportunities		32~33,82	v	
Ethics and integrity	102-16	Values, principles, standards, and norms of behavior	4.4/6.6.3	83~84	v	
Governance	102-18	Governance Structure	6.2/7.4.3/7.7.5	81	v	
Participation of stakeholders	102-40	List of stakeholder groups	5.3	28	v	
	102-41	Collective bargaining agreements		97	v	
	102-42	Identifying and selecting stakeholders		28	v	
	102-43	Approach to stakeholder engagement		28~31	v	
	102-44	Key topics and concerns raised		28~31	v	
Reporting practices	102-45	Entities included in the consolidated financial statements	5.2/7.3.2/7.3.3/7.3.4	2020 business report(60)	v	
	102-46	Defining report content and topic boundaries		32	v	
	102-47	List of material topics		33	v	
	102-48	Restatements of information		-	v	
	102-49	Changes in reporting		33	v	





Topic		Disclosure	ISO 26000	Page/Contents	Assurance	UN SDGs
Reporting practices	102-50	Reporting Period	7.5.3/7.6.2	About this Report	v	
	102-51	Date of most recent report		About this Report	v	
	102-52	Reporting cycle		About this Report	v	
	102-53	Contact point for questions regarding the report		About this Report	v	
	102-54	Claims of reporting in accordance with the GRI Standards		About this Report	v	
	102-55	GRI Content Index		99~101	v	
	102-56	External assurance		106~108	v	
Topic-specific Standards						
Topic 1: Health and Safety						
GRI 103: Management Approach 2016	103-1, 2, 3	Management Approach		68	v	
GRI 403 Occupational Health and Safety (2018)	403-1	Occupational health and safety management system	6.4.6	69	v	 
	403-2	Hazard identification, risk assessment, and incident investigation		71~72	v	
	403-3	Occupational health services		71~74	v	
	403-4	Worker participation consultation, and communication on occupational health and safety		71	v	
	403-5	Worker training on occupational health and safety		72	v	
	403-6	Promotion of worker health		73, 78	v	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships		70	v	
	403-8	Workers covered by an occupational health and safety management system		69	v	
	403-9	Work-related injuries		98, 102	v	
Topic 2: Product responsibility						
GRI 103: Management Approach 2016	103-1, 2, 3	Management Approach		44	v	 
Customer Health and Safety	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services		0 case(no case)	v	
Topic 3: Waste						
GRI 103: Management Approach 2016	103-1, 2, 3	Management Approach		50, 53	v	   
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts		53	v	
	306-2	Management of significant waste-related impacts		53	v	
	306-3	Waste generated		53, 95	v	
	306-5	Waste directed to disposal		95	v	
Topic 4: Eco-friendly technology						
GRI 103: Management Approach 2016	103-1, 2, 3	Management Approach		23, 50, 52	v	   
-	-	Total number of sites that have applied the eco-friendly technology package		52	v	






Topic 5: Employees					
GRI 103: Management Approach 2016	103-1, 2, 3	Management Approach		74	v
GRI 401: Employment 2016	401-1	New employee hires and employee turnover		97	v
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees		78	v
	401-3	Parental leave		97	v
GRI 103: Management Approach 2016	103-1, 2, 3	Management Approach		74	v
GRI 404: Training and education 2016	404-1	Average hours of training per year per employee		97	v
	404-2	Programs for upgrading employee skills and transition assistance programs		76	v
	404-3	Percentage of employees receiving regular performance and career development reviews		98	v
Topic 6: Environmental laws and regulations					
GRI 103: Management Approach 2016	103-1, 2, 3	Management Approach		50	v
GRI 307: Environmental compliance 2016	307-1	Non-compliance with environmental laws and regulations		54	v
Topic 7: Local Communities					
GRI 103: Management Approach 2016	103-1, 2, 3	Management Approach		62	v
GRI 413: Local communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs		63~67	v
Topic 8: Climate Change					
GRI 103: Management Approach 2016	103-1, 2, 3	Management Approach		20~23, 50	v
GRI 302: Energy 2016	302-1	Energy consumption within the organization	6.5.4	94	v
GRI 103: Management Approach 2016	103-1, 2, 3	Management Approach		20~23, 50	v
GRI 302: Energy 2016	305-1	Direct (Scope 1) GHG emissions		95	v
	305-2	Energy indirect (Scope 2) GHG emissions	6.5.5	95	v
	305-3	Other indirect (Scope 3) GHG emissions		95	v
Topic 9: Technological innovation					
GRI 103: Management Approach 2016	103-1, 2, 3	Management Approach		38	v
-	-	Application rate of smart construction technologies		41	v



SASB Content Index





Topic	SASB Code	Metric	Answer
 Environmental impacts of project development	IF-EN-160a.1	Number of incidents of non-compliance with environmental permits, standards, and regulations	55 cases (No significant penalty apart from administrative fines due to violations)
	IF-EN-160a.2	Discussions of processes to assess and manage environmental risks associated with project design, siting, and construction	To identify the environmental impacts before commencing a project, POSCO E&C takes an appropriate environmental impact assessment according to the type and scope of the project. We acquire environmental permits from an approving agency before commencing the projects. We devise an environmental management plan on how to manage dust, noise, and waste before the commencement. Once the projects are executed, we conduct regular monitoring to prevent environmental harm and engage in the thorough environmental management of sites through education on environmental management, emergency training, and communication.
 Structural integrity and safety	IF-EN-250a.1	Amount of defect- and safety-related rework costs	Cost for repair and maintenance: KRW 32.6 billion (disclosed in business report)
	IF-EN-250a.2	Total amount of monetary losses as a result of legal proceedings associated with defect- and safety-related incidents	KRW 6.1 billion(claimed amount by the decision of the defect litigation in 2020)
 Workforce Health & Safety	IF-EN-320a.1	Total recordable incident rate (TRIR) and fatality rate for direct employees and contract employees	- Injury rate*: 0.10% * Formula: (Converted number of incidents / Ordinary number of employees) x 100 · Converted number of incidents: Fatalities x 5 + Number of injuries · Ordinary number of employees: (Yearly domestic sales x labor rate) / (average monthly wage of workers x 12 months) - Fatalities: 2
 Lifecycle Impacts of Buildings & Infrastructure	IF-EN-410a.1	Number of commissioned projects certified to a third-party sustainability standard and active projects seeking such certification	- Total of 17 LEED certifications (2010 - 2018) - Total of 14 G-SEED certifications of projects completed in the reporting period of 2020
	IF-EN-410a.2	Discussion of process to incorporate energy and water efficiency considerations into project planning and design	When designing a building that increases energy efficiency, POSCO E&C applies high insulation and airtight windows, high-performance heat insulators, high-efficiency lighting (LED), geothermal/solar renewable energy production facilities, and green buildings. Also, by developing an energy-saving scheme designed for BIM-based system that analyzes environmental performance and energy, we convert two-dimensional information to three-dimensional and put all construction data into a database. The sets of data are then used for efficiently interpreting environmental performance in construction, such as the amount of sunshine, view, and direction, as well as energy analysis for optimized air conditioning. We also reduce the energy consumption of apartment housings based on this system. For increased water efficiency, we apply water-saving techniques, such as a system for recycling reclaimed water and rainwater and water-saving devices.

※ Financial figures in the SASB index is based on non-consolidated financial statements.

Topic	SASB Code	Metric	Answer
 Climate change impacts of business mix	IF-EN-410b.1	Amount of backlog for hydrocarbon related projects and renewable energy projects	- Amount of backlog for hydrocarbon-related projects: KRW 1,794 billion (including coal, oil, and gas power generation) - Amount of backlog for renewable energy projects: KRW 1,566.7 billion (including household waste, solar power, and fuel cell)
	IF-EN-410b.2	Amount of backlog cancellations associated with hydrocarbon-related projects	- KRW 1,287.4 billion (Quang Tri Coal-fired Power Plant in Vietnam, Quirey Combined Heat and Power Plant in Mexico)
	IF-EN-410b.3	Amount of backlog for non-energy projects associated with climate change mitigation	- KRW 2,170.6 billion (related to public transit, including general railroad, light rails, subways, and train depots)
 Business ethics	IF-EN-510a.1	Number of active projects and backlog in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	- KRW 136 billion (Iraq, Venezuela, and Turkmenistan) In 2011, POSCO E&C set a guideline on the compliance of the Act on the Prevention of Corruption and the Establishment and Management of the Anti-Corruption and Civil Rights Commission and has made seven revisions to-date. In 2012, we added a Special Clause of Ethics Practice for the dealing counterparts to specify the clause upon subcontracting to make the Code of Ethics clear and encourage the counterparts' compliance with anti-corruption and fair trade policies.
	IF-EN-510a.2	Total amount of monetary losses as a result of legal proceedings associated with charges of bribery or corruption and anticompetitive practices	- KRW 2.34 billion (ruling in 2020, 1 indemnification for damage occurred by Honam High-speed Rail collusion)
	IF-EN-510a.3	Policies and practices for prevention of bribery and corruption, and anti-competitive behavior in the project bidding processes	1. Special term for ethical practice 2. Guideline on the compliance of the Act on the Prevention of Corruption and the Establishment and Management of the Anti-Corruption and Civil Rights Commission 3. Code of Ethics 4. Code of Conduct for the prevention of conflict of interest 5. Rules on the operation of the Fair Trade Compliance Program 6. Guidelines on the operation of the Fair Trade Compliance Program
 Activity metrics	IF-EN-000.A	Number of active projects	188 (including overseas projects)
	IF-EN-000.B	Number of commissioned projects	63
	IF-EN-000.C	Total backlog	KRW 31,714 billion

※ Financial figures in the SASB index is based on non-consolidated financial statements.

TCFD Recommendations

	Recommendations	Page	CDP Index
Governance 	a) Describe the board's oversight of climate-related risks and opportunities. b) Describe management's role in assessing and managing climate-related risks and opportunities.	20~23, 26	CC1.1b CC1.2a
Strategy 	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term. b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning. c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	20~23	CC2.3a, CC2.4a CC2.5, CC2.6 CC3.1d
Risk management 	a) Describe the organization's processes for identifying and assessing climate-related risks. b) Describe the organization's processes for managing climate-related risks. c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	20~23	CC2.2b CC2.2d CC2.2
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. b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks. c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	22, 95	C4.2 CC6.1, CC6.3, CC6.5 C4.1, C4.1a

UN GLOBAL COMPACT

The United Nations Global Compact (UNGC) is a global corporate sustainability initiative that encourages companies to internalize the ten principles in the four areas of human rights, labor, environment, and anti-corruption in their management strategies and operations. In May 2021, POSCO E&C came to a conclusion to join the UNGC and since has been supporting the ten principles as well as internalizing the UN's principles in its overall management.



The Ten Principles of the UNGC

Classification	Principle	Page
Human Rights	1. Businesses should support and respect the protection of internationally proclaimed human rights; and	83~85
	2. make sure that they are not complicit in human rights abuses	83~85
Labour	3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	74~79
	4. the elimination of all forms of forced and compulsory labour;	74~79
	5. the effective abolition of child labour; and	74~79
	6. the elimination of discrimination in respect of employment and occupation	74~79
Environment	7. Businesses should support a precautionary approach to environmental challenges;	20~23, 50~55
	8. undertake initiatives to promote greater environmental responsibility; and	20~23, 50~55
	9. encourage the development and diffusion of environmentally friendly technologies	50~55
Anti-corruption	10. Businesses should work against corruption in all its forms, including extortion and bribery	83~84

Third-party Verification Report

LR Independent Assurance Statement

Relating to POSCO Engineering & Construction Ltd.'s
Corporate Citizenship Report for the 2020 calendar year



This Assurance Statement has been prepared for POSCO Engineering & Construction Ltd. in accordance with our contract but is intended for the readers of this Report.

Terms of engagement

Lloyd's Register Quality Assurance Limited (LR) was commissioned by POSCO Engineering & Construction Ltd. (POSCO E&C abbreviated) to provide independent assurance on its '2020 POSCO E&C Corporate Citizenship Report' ("the report") against the assurance criteria below to a "moderate level of assurance and materiality" using "Accountability's AA1000AS v3", where the scope was a Type 2 engagement.

Our assurance engagement covered POSCO E&C's operations and activities in Korea specifically the following requirements:

- Evaluating adherence to the AA1000 Accountability Principles of Inclusivity, Materiality, Responsiveness and Impact
- Confirming that the report is in accordance with GRI Standards and core option
- Evaluating the accuracy and reliability of data and information for only the selected indicators listed below:
 - GRI 300 (Environmental): 302-1, 305-1, 305-2, 305-3, 306-1, 306-2, 306-3, 306-5, 307-1
 - GRI 400 (Social): 401-1, 401-2, 401-3, 403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-9, 404-1, 404-2, 404-3, 413-1, 416-2
 - Other topic-specific disclosures : number of sites adopting green technology packages, adoption rate of Smart Construction Technology

Our assurance engagement excluded the data and information of POSCO E&C's suppliers, contractors and any third-parties mentioned in the report.

LR's responsibility is only to POSCO E&C. LR disclaims any liability or responsibility to others as explained in the end footnote. POSCO E&C's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the report and for maintaining effective internal controls over the systems from which the report is derived. Ultimately, the report has been approved by, and remains the responsibility of POSCO E&C.

LR's Opinion

Based on LR's approach nothing has come to our attention that would cause us to believe that POSCO E&C has not, in all material respects:

- Met the requirements above
- Disclosed accurate and reliable performance data and information as all errors or omissions identified during the assurance engagement were corrected
- Covered all the issues that are important to the stakeholders and readers of this report.

The opinion expressed is formed on the basis of a moderate level of assurance and at the materiality of the professional judgement of the verifier.

Note: The extent of evidence-gathering for a moderate assurance engagement is less than for a high assurance engagement. Moderate assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a moderate assurance engagement is substantially lower than the assurance that would have been obtained had a high assurance engagement been performed.

LR's approach

LR's assurance engagements are carried out in accordance with our verification procedure. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Assessing POSCO E&C's approach to stakeholder engagement to confirm that issues raised by stakeholders were captured correctly. We did this through reviewing documents and associated records.
- Reviewing POSCO E&C's process for identifying and determining material issues to confirm that the right issues were included in their Report. We did this by benchmarking reports written by POSCO E&C and its peers to ensure that sector specific issues were included for comparability. We also tested the filters used in determining material issues to evaluate whether POSCO E&C makes informed business decisions that may create opportunities that contribute towards sustainable development.

- Auditing POSCO E&C's data management systems to confirm that there were no significant errors, omissions or mis-statements in the report. We did this by reviewing the effectiveness of data handling procedures, instructions and systems, including those for internal verification. We also spoke with those key people responsible for compiling the data and drafting the report.
- Reviewing additional evidence made available by POSCO E&C at their Songdo Office in Incheon City.
- Checking that the GRI Content Index allows stakeholders to access sustainability indicators.

Observations

Further observations and findings, made during the assurance engagement, are:

• Stakeholder inclusivity

We are not aware of any key stakeholder groups that have been excluded from POSCO E&C's stakeholder engagement process.

• Materiality

We are not aware of any material issues concerning POSCO E&C's sustainability performance that have been excluded from the report. It should be noted that POSCO E&C has established extensive criteria for determining which issue/aspect is material and that these criteria are not biased to the company's management.

• Responsiveness

POSCO E&C implements a process to respond to and communicate with stakeholders regarding material topics.

• Impact

POSCO E&C implements a process to manage its impacts related to material topics. For example, POSCO E&C endeavoured to minimize negative environmental impacts by changing some waste disposal from landfilling to recycling.

• Reliability

POSCO E&C has reliable data management systems for the indicators in the report.

LR's standards, competence and independence

LR implements and maintains a comprehensive management system that meets accreditation requirements for ISO 14065 Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition and ISO/IEC 17021 Conformity assessment – Requirements for bodies providing audit and certification of management systems that are at least as demanding as the requirements of the International Standard on Quality Control 1 and comply with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants.

LR ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

LR is POSCO E&C's certification body for ISO 9001, ISO 14001, ISO 45001 and ISO 27001, and verification body for its greenhouse gas emissions. We also provide POSCO E&C with a range of training services related to management systems. The verification and certification assessments, together with the training, are the only work undertaken by LR for POSCO E&C and as such does not compromise our independence or impartiality.

Dated: 25 June 2021

Tae-Kyoung Kim LR Lead Verifier

On behalf of Lloyd's Register Quality Assurance Limited
17th Floor, Sinsong Building, 67 Yeouinaru-ro,
Yeongdeungpo-gu, Seoul, Korea
LR reference: SEO00000629



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Verification Statement on Greenhouse Gas (GHG) Emissions



Verification standards and scope

POSCO E&C Co., Ltd. has requested Lloyd's Register Korea to provide independent verification of the company's greenhouse gas emissions and energy consumption statement (hereinafter referred to as the "statement") of 2020. The standards applied for this verification were "Guidelines on the Operation of Target Energy Management of Greenhouse Gases" and were carried out under the "Guidelines on the Verification for the Operation of Greenhouse Gas Emission Trading System."

The statement covers direct and indirect greenhouse gas emissions and energy consumption.

Management responsibility

The responsibility of Lloyd's Register Korea is limited to POSCO E&C. The former holds no obligation or responsibility for any other person or organization. POSCO E&C's management remains responsible for the preparation of the statement and maintaining effective internal control of the data and information contained in the statement. Ultimately, the statement has been approved by POSCO E&C and is under the responsibility of POSCO E&C.

Verification method of Lloyd's Register Korea

The verification of Lloyd's Register Korea was carried out at a reasonable level of assurance pursuant to the "Guidelines on the Verification for the Operation of Greenhouse Gas Emission Trading System."

This verification was conducted through sampling and the following activities were carried out as part of evidence collection.

- On-site inspection of workplace facilities was conducted and the system for managing data and records related to greenhouse gas emissions and energy consumption were reviewed.
- Interviews were conducted with employees responsible for managing data and records related to greenhouse gas emissions and energy consumption.
- Data and records related to greenhouse gas emissions and energy consumption for 2020 were verified up to the source data.

Standards and importance of assurance

The opinions expressed in this verification statement are based on the verification at a reasonable standard of verification and are derived based on professional opinions of verification examiners and 5% of importance criteria.

Opinions of Lloyd's Register Korea

The verification results based on the approach of Lloyd's Register Korea present "adequate" opinions on greenhouse gas emissions in the "Guidelines on the Operation of Target Energy Management of Greenhouse Gases" and "4. Verification Conclusions" in the statement.

March 23, 2021

Verifying agency: Lloyd's Register Korea
CEO Lee Il-hyeong



Awards and Membership

List of awards

03.24	Grand Prize for the civil engineering category of the International Construction Awards 2020
03.25	Commendation by the Minister of Land, Infrastructure and Transport in the 20th Anniversary Construction Engineers' Day
04.28	Ranked top in the apartment category of the Brand Customer Loyalty Index (BCLI) 2020
05.28	Grand Prize in the residential complex category of the A.P.T Brand Awards
06.12	Ministerial Award of Land, Infrastructure and Transport for the residential welfare category of the Korea Apartment Awards 2020
06.18	Commendation by the Minister of Land, Infrastructure and Transport at the Construction Day 2020
07.07	Grand Prize in the brand category of the Hankyung Housing Culture Awards for the First Half
07.22	Ranked top in the apartment category of the Korean Standard Well-Being & Environment Index (KS-WEI) 2020
08.26	Grand Prize at the Best Housing Awards
09.24	Commendation by the Minister of Land, Infrastructure and Transport in the win-win growth category of the Asia L&C Grand Prix 2020
10.16	Ranked top in the construction/engineering category of the Korean Sustainability Index

10.22	Grand Prize for Smart Construction at the Korea Green Construction Award
10.23	Ranked top in the apartment category of the Korea Standard Quality Excellence Index (KS-QEI) 2020
10.27	Grand Prize in the innovative technology category of the Construction Awards
11.03	Grand Prize for the urban development category of the Most Wanted House
11.04	13th Presentation on Best Practices of Construction Technology Research - Ministerial Award of Land, Infrastructure and Transport in the environmental plant and convergence category
11.04	13th Presentation on Best Practices of Construction Technology Research - Land, Infrastructure, and Transport Committee Chair Award in the civil engineering category
11.04	13th Presentation on Best Practices of Construction Technology Research - Presidential Award from the Korea Institute of Civil Engineering and Building Technology in the building works category
11.18	Grand Prize in the residential maintenance category of the Smart Construction Awards
11.19	Nominated as Company with Outstanding Quality Competitiveness at the 46th National Quality Management Convention (Ministerial Award of Trade, Industry and Energy)

11.19	National Assembly Speaker Award (Best Award) for the Best Practice Competition for Construction Environment Management
11.27	Ministerial Award of Land, Infrastructure and Transport (Best Award) for the smart construction and safety category of the Smart Construction Challenge 2020
11.28	Ministerial Award of Land, Infrastructure and Transport - Best team project for cultivating professionals for overseas construction investment and development
12.01	Grand Prize (Ministerial Award of Land, Infrastructure and Transport) at the Korea Construction Awards
12.02	Commendation by the Minister of Trade, Industry and Energy at the 4th Plant EPC Collaboration Forum
12.10	Grand Prize at the 4th Korea Construction Awards 2020 (Ministerial Award of Land, Infrastructure and Transport)
12.23	Commendation by the Minister of the Interior and Safety
12.04	Grand Prize in the building works category of the Hankyung Housing Culture Awards for the Second Half
12.04	Grand Prize for the urban development category of the Most Wanted House
12.09	Grand Prize in the building works category of the Civil Engineering & Construction Technology Awards (Ministerial Award of Land, Infrastructure and Transport)

List of awards

Strategic planning	Construction Guarantee
	International Contractors Association of Korea
	Korea Federation of Construction Contractors
	Construction Management Strategy Institute
	Korea Chamber of Commerce and Industry
	Korea Construction Environment Association
General Administration	Pohang Steel Industrial Complex
	Construction Expert Association
	Association of Material Department Heads of Construction Companies
	Association of Material Workers of Construction Companies
	MOLIT Emergency Planning Council
	Construction Vision Forum

Building works	Korea Housing Association
	The Society of Air-conditioning and Refrigerating Engineers of Korea
	The Korea Institute of Building Construction
	Korea Remodeling Association
	Korean Association of Air Conditioning Refrigerating and Sanitary Engineers
	The Korean Institute of Illumination and Electrical Installation Engineers
R&D/ Integrity	Korea Industrial Technology Association
	Korea Society for Construction Quality
	KOITA Chief Technology Officer (CTO) Club
	Korea Standards Association
	Engineering Development and Research Center
	Korea Construction Transport New Technology Association

Plant	Korea Plant Industries Association
	Korea Atomic Industrial Forum
	Private-Public Consultative Council for Oil and Gas Resources Development
Infra-structure	Korea Facilities Maintenance Association
	Korea Construction Engineers Association
	Korea International Trade Association
	Korea Fire Safety Institute
	Korea Engineering and Consulting Association
	Korea Electric Engineers Association
	SOC Forum
	Transportation Investment Evaluation Association
	Korean Society of Civil Engineers

POSCO E&C Corporate Citizenship Report 2020

Visit the POSCO E&C's official website for more information on our Corporate Citizenship Reports. You can download the PDF file of this report.

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